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# Funding and Allocation in School Districts Educating Children with Impact Aid

Jamee M. Lynch-Moore  
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# Walden University

College of Social and Behavioral Sciences

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2019

Abstract

Funding and Allocation in School Districts Educating Children with Impact Aid

by

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MA, Sierra Nevada College, 2010

BA, University of Nevada, Las Vegas, 2007

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Policy and Administration

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## Abstract

Budgeting and allocation decisions made by school districts have a direct impact on education in local communities. Little, however, is known about budgetary allocation and decision-making practices involving federal Impact Aid received by military-connected districts as no national guidelines exist to guide the allocation of this funding source. Using Sielke's garbage can decision model as the foundation, the purpose of this multiple case study of 5 school districts located throughout the United States was to explore how school districts use Impact Aid to achieve educational adequateness for military-connected children. Research questions focused on how school districts make budgetary decisions in regard to Impact Aid and military-connected students. Data were collected from 5 semistructured interviews with school administrators, budget analysts, as well as over 350 publicly available policy documents. All data were inductively coded and categorized to apply frequency of references and through open and descriptive coding emerged 4 thematic elements. The key findings of this study showed that sequestration and information management had the largest impact on how Impact Aid funding was spent by school districts. The results of this study provide evidence in support of Sielke's garbage can decision theory. The implications for social change stemming from this study include recommendations to policy makers regarding improving allocation methods, which may in turn improve the effectiveness of education funding leading to adequate and equal education support for all public school students.

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## Chapter 1: Introduction to the Study

### **Introduction**

Individuals who practice public policy are tasked with making decisions that will have an indirect and direct effect on others. These decisions, or public policy actions, all have repercussions, the magnitude of which is unknown to practitioners at the time the decisions are made. Many budgeting decisions have a large impact on services provided to a community. In the education field, little is known about allocation and decision-making practices involving federal funding received by military-connected districts through the Impact Aid program. A school district is a geographic location providing education services. When the geographical location of a school district contains federal land, such as a military installation, the school district services students residing on the installation and is considered a military-connected school district. Impact Aid is a program that is designed to compensate the military-connected school district for servicing students who live on the military installation. Currently, no national guidelines exist to explain how Impact Aid funding is budgeted with the general budget of a military-connected school district. In this study, I examined the decision-making process of school boards and administrators who are allocating the funding received from Impact Aid. The goal of this study was to develop a deeper and more comprehensive understanding of how decision-making theory is used in the allocation process of military-connected school districts.

Few studies have been conducted on Impact Aid and even fewer on how Impact Aid impacts military-connected students. Buddin, Gill, and Zimmer (2001) studied the

Impact Aid program and concluded that military-connected students and civilian students had comparable levels of education. Chichura (1989), Guthrie (1996), and Gibson (2010) conducted studies on the financial characteristics of education funding but did not include decision-making practices of boards and administrators. All three studies recommended further research on budget procedures and allocation practices at the local level. This study on how budget decisions are made using Impact Aid funding addressed the gap in the literature on school district budgeting and decision-making practices.

To implement changes in finance, education, and program policy, it is important to identify the decision-making strategies used by boards and administrators in creating a yearly budget. Along with identifying how those decision-making strategies are implemented in the budget process, this study provided comprehensive information to legislators and government officials who want to use funding to meet the educational needs of military-connected students. Meeting the educational needs of students by providing better resources will promote their abilities and talents, lead to higher achievements, and help them contribute to a more informed future society.

In this chapter, I cover the following topics: background of the problem, purpose of the study, the theoretical framework, the nature of the study, and definitions used in the study. I also present the nature of the study and assumptions, delimitations, limitations, and significance.

### **Background**

For over 60 years, lawmakers have been concerned with the presence of military facilities that affect the local education system and generate a larger population for the

community to educate (Buddin et al., 2001). In 2013, just over 1.4 million active duty military members lived on over 100 installations across the United States (*Military Occupational Outlook Handbook*, 2014). These installations impact local education funding because they house many families but do not add to the community property tax base. To alleviate problems, Impact Aid was created in order to provide assistance to local school districts providing services for tax-exempt property. These support payments were cut by 50% in the late 1970s and 1980s and continued to be reduced throughout the 1990s and 2000s (U.S. Department of Education, 2012).

Public school in the United States dates back to 1642 when legislation was passed requiring communities to fund local education services (Alexander & Salmon, 1995). Since then, tax-supported public schools, with education reform on standards and services, has become more universal. Ornstein's (1978) study on the state governments and the ability to finance education found that inequalities in tax-supported school districts resulted in various levels of education services and academic achievement. Many studies have established the positive relationship between funding and academic achievement (Aos & Pennucci, 2012; Papke, 2005; Papke & Wooldridge, 2008). To provide equal education in all states, the federal government has taken a role in funding states to increase the level of education services offered. In doing so, the federal government over time has established specific populations in need of funding, including military-connected students.

Currently, no common national standard exists about allocating education funding or the budgeting process. This leaves school boards and administrators to make decisions

based on personal values established by the political culture of individual states (Louis, Leithwood, Wahlstrom, & Anderson, 2010). Studies conducted on various education funding formulas have shown that funding has a positive impact on education services. Gordon's (2004) study on Title I funding appropriations used by local governing agencies concluded that the budgeting process required very little collaboration by school boards and administrators due to the guidelines given on how to appropriate the funding. As Impact Aid funding contains no allocation guidelines, the budget and allocation process is more collaborative and thus results in a more expansive and detailed decision-making process.

The academic literature lacks research on funding decisions at the local level, and decisions that were executed by school district school boards and administrators. With the importance of public education and the amount of funding involved, decision-making practices and the allocation of federal funding is not widely understood. This study on budget decision-making practices within school districts using Impact Aid federal funding helped address the gap on school district budgeting. It also added to the broad topics of decision-making and allocation practices. This created a more comprehensive understanding of the types of budgeting decisions and allocation of other types of funding in other areas of public finance.

### **Problem Statement**

In the United States, school districts are funded mainly by local property taxes. However, military installations in the same local area house a large number of families with school aged children, but they are exempt from paying local property taxes. Impact

Aid is meant to offset costs to school districts serving military-connected students and installations (Schroeder, 2012). Despite the intent of the federal government to provide school districts with resources for these students, there are no federal guidelines to determine how local school districts must budget these funds (Buddin et al., 2001). Prior to this study, no research had been conducted on how school districts spend Impact Aid funds on military-connected students (Buddin et al., 2001; Dunn, 2006). Given the lack of federal guidance on Impact Aid funds, there is a problem as it is unclear if local school districts are using Impact Aid efficiently as no rules, regulations or congressional intent are specified. The problem has created inconsistent spending among the recipient school districts and how military-connected children are being serviced with these funds.

Public school districts use the garbage can approach during the budgeting process (Rubin, 1977). Sielke (1995) developed a budget decision-making theory derived from decision-making theory and budgeting theory. Sielke (1995) concluded that rational, incremental, and garbage can could be used for evaluating budgeting decisions. When school districts receive Impact Aid, garbage can budgeting would suggest that all revenue sources are combined, making it difficult to measure how the dedicated funds support military-connected children. How local school boards and administrators view Impact Aid effects how the funds are budgeted and if these funds are actually used to benefit military-connected students. This study showed how military-connected students benefit from Impact Aid funding through the lens of Sielke's (1995) garbage can theory.

The results of this study helped to fill the gap on school district budgeting and add to the broader topics of decision-making and allocation practices. The results provide

policy-makers with guidance as to how Impact Aid funding is benefitting military-connected students. With informed guidance, the results of the study provide the needed information to determine if standards or congressional intent are needed for local school districts, as well as whether national standards on Impact Aid allocation should be established.

### **Purpose of the Study**

The purpose of this qualitative study was to explore the funding and allocation practices of individual school districts participating in the Impact Aid program and how they affect military-connected students. Using a multiple case study approach, I analyzed the budgeting practices of school districts in California, North Dakota, Missouri, and Texas servicing students from kindergarten through twelfth grade. During the analysis, I focused on the allocation practices of Impact Aid and how it was used to educate military-connected students. I analyzed several themes: district goals, priorities, education services plans, and the education of military-connected students. I explored how the five school districts receiving Impact Aid provided for military-connected students.

### **Research Questions**

This study was guided by two research questions:

RQ1: How does garbage can budgeting impact the funding decisions of military-connected school districts when receiving Impact Aid?

RQ2: What budgeting decisions are made by military-connected school districts when state funding or the Impact Aid program funds are decreased or cut?

### **Theoretical Foundation**

The theoretical foundation for this study derived from Sielke's (1995) decision-making theory. Sielke's (1995) used Key's (1940) budget theory to develop decision-making theory, which further divided into three different approaches: rational, incremental, and garbage can. Both budget theory and decision-making theory were applied to this qualitative study as a way to analyze the financing choices of school districts and the decision-making process used to determine how to spend Impact Aid funding.

While Key (1940) did not provide a normative or descriptive theory of rational budgeting, rational decision-making has been applied using budget theory in the budgeting and allocation process. Rational decision-making was first described by March and Simon (1958) and again used by Cyert and March (1963) to explore classic rationality, emphasizing the importance of the consideration of alternatives. Later, Barber (1968) and Cibulka (1987) both investigated rational decision-making in educational settings and concluded that budgeting should encompass ranking goals of the community when allocating funding to programs.

Incremental decision-making was first seen in the work of Lindblom (1959), who formalized an alternative to rational decision-making. Initially called successive limited comparisons, the theory was based on the belief that individuals were hesitant to make decisions requiring predictions of the future and made decisions based on preventing ongoing problems (Lindblom, 1959). Lindblom (1959) stated that this type of decision-making in regard to budgeting is primarily seen in public organizations and

bureaucracies. The incremental decision-making approach looks at budgets in a historical manner, and according to Barber (1968) and Berry (1990), small segments are concentrated on rather than the whole budget. Sielke (1995) believed that rather than evaluating all outcomes, decision-makers list only those outcomes that personally occur to the individual and select the first alternative proposed.

Garbage can decision-making was developed by Cohen, March and Olsen (1972) to describe what occurs in organized anarchy. Organized anarchies are described as having three features including problematic preferences, unclear technology, and fluid participation (Cohen et al., 1972). With a garbage can model, money is put all in one place, and priorities of programs do not outwardly exist. They found that decision-makers shift from problems more frequently, and have no reliability of the results (Sielke, 1995).

Rubin (1977) studied the decision-making process among five universities faced with reduced resources. The purpose of the study was to look at funding levels and characteristics of organizational decision-making. To do this, Rubin (1977) used five universities' budgeting process to compare to different types of decision-making. It was concluded that reduced resources caused changes in the allocation decision process of the five universities, and that the garbage can model of decision-making was most commonly used (Rubin, 1977, p. 253). In another study conducted by Chichura (1989), public school boards and the role in the resource allocation process was studied comparing three perspectives. The study produced four variables that impacted funding levels of school districts and concluded that all four school districts used garbage can decision-making

when forming a budget. An expansive explanation of the theoretical framework is detailed in Chapter 2.

Sielke (1995) used previous budget theories and applied these theories to the decision-making process. Findings highlighted the differences in budgetary decision-making in school districts of varying wealth. Sielke (1995) found that districts with uncertain wealth used garbage can decision-making and proposed that resource-allocation decisions needed to be made in advance of new fiscal years to eliminate the uncertainty in the budgeting process.

Garbage can theory played a vital role in understanding how military-connected students benefit from funding received from the Impact Aid program. Prior to this study, little research existed on (a) if military-connected students are benefitting from the funding provided by Impact Aid, and (b) what budgeting decisions are made by school districts when Impact Aid is decreased or cut. By using decision-making theory as the criterion for analyzing budgeting procedures, I learned which of Sielke's (1995) decision-making theories is used by school districts in the budget process.

### **Nature of the Study**

To address the RQs, I conducted five case studies. The qualitative case study approach provided a contextual analysis of the multiple school districts servicing military installations across the United States. Using multiple case studies allowed for increased compare and contrast strategies that allowed me to predict similar results (Baxter & Jack, 2008, p. 548). By researching in-depth details of how funding decisions are made, I was able to analyze how military-connected students are benefitting from Impact Aid funds.

The research also allowed analysis about how Impact Aid funds affected military-connected children when funds are minimized.

Five school districts were selected for case studies in this qualitative analysis. Each school district was chosen to best represent different sized populations of schools, as well as various impacts of military-connected students in the school district. For this study, I used interviews and a review of documents to gain the data needed to answer the guiding questions. Each of the five case studies included semistructured interviews with key officials in the school district as well as document analysis of meeting minutes and budget documents to address the RQs. More information on the instrumentation of the study and data collection procedures is found in Chapter 3.

### **Definitions**

*Elementary and Secondary Education Act:* The first national education law in the United States that was enacted in 1965 to raise academic achievement (Department of Education, 2016).

*Garbage can decision-making:* A collection of choices based on problems, solutions, and choice opportunities, while priorities of programs do not outwardly exist (Cohen et al., 1972).

*Impact Aid:* “Federal aid designed to assist United States local school districts that have lost property tax due to the presence of tax-exempt Federal property, or that have experienced increased expenditures due to the enrollment of federally connected children” (Kosar, 2011, p.1).

*Incremental decision-making:* A method of choice based on historical context concentrating on small segments with marginal changes (Berry, 1990).

*Military installation:* “[A] base, camp, post, station, yard, center, or other activity under the jurisdiction of the Secretary of a military department or, in the case of an activity in a foreign country, under the operational control of the Secretary of a military department or the Secretary of Defense, without regard to the duration of operational control” (10 U.S. Code § 2801).

*Rational decision-making:* A method in organizational behavior for using a multistep process to systematically select among possible choices that are based on reason, facts, and possible outcomes (Taylor, 1998).

### **Assumptions**

Assumptions in qualitative research are conditions unable to be proven as true but believed to be true or plausible. The following four assumptions were made:

- Participants will give honest responses to the interview questions that reflect their true perceptions and understanding of Impact Aid and decision-making strategies.
- Participant honesty is assumed due to the anonymity and confidentiality of their identities, as they are volunteering and may withdraw from the interview at any time.
- The documents reviewed are accurate and reflect the school districts’ budgeting practices.

- Given the chosen population and the research design, assumptions are necessary for the context of the study to ensure that the data I collect is accurate and analyzed for honest results regarding decision-making and Impact Aid.

### **Scope and Delimitations**

The scope and delimitations set the boundaries for this qualitative multiple case study. The scope of the study included a specific sample of school districts using Impact Aid. The sample was taken from school districts receiving over one million dollars in Impact Aid funding per year. Fifty-two school districts were identified as receiving over one million dollars in funding as well as servicing military installations. I used purposeful sampling to narrow participants to only five school districts. The five chosen school districts represent different levels of impact due to a military presence and provided enough data so that the results are applicable to all types of military-connected school districts.

The scope of this study was on the Impact Aid Program and specifically how it impacts military-connected students. Of the major federal education funding programs, Impact Aid distributes a significant amount of funding to federally-connected students. Of those federally-connected students, students residing on Indian reservations and receiving Impact Aid are extensively researched, while the other population, students residing on military installations, are underresearched. By observing and documenting the characteristics of the decision-making process of school districts through case studies, I

was able to accurately analyze how military-connected students are impacted by the funds received from Impact Aid.

Transferability occurs when the findings are compared to other participants in other settings (Yin, 2011). By conducting semistructured interviews and reviewing budget documents, I produced a thick description of decision-making theories and school district allocation practices with Impact Aid funding that allowed for a greater understanding and the ability to compare results with other cases. Although this study was limited to five cases, the study has transferability to all military-connected schools using Impact Aid. The study also has transferability to non-Impact Aid school districts, as the decision-making process when allocating funding can be applied to any type of budget process.

### **Limitations**

A qualitative multiple case study approach has many advantages that make it the best choice to answer the RQs in this study, but it also comes with limitations. This study was subject to two limitations.

The first limitation was semistructured interviews. As data is reliant on the skill of the interviewer and the clarity of the participant, it is important for the interviewer to understand social cues from the participant. The interviewer also needs to be aware that social cues can also guide the participant so it is important to maintain the interview protocol.

The second limitation is that the follow-up questions and the answers provided by the respondents will vary in each case. Some respondents divulge more information than

others, so follow-up questions may produce more information in different respondents.

Interview protocol helps maintain equality among interviews.

All types of methodologies and research are subject to researcher biases, and this study was no different. All research, and specifically qualitative research, is subjected to the bias of the researcher. According to Chenail (2011), when researchers are members of the group studied, the researcher may limit their curiosities with follow-up questions due to the knowledge of the subject. Chenail (2011) explained that a natural human response is only to discover what is unknown, rather than opening up inquiries about unknown information. As I have worked for school districts in the past, both as a teacher and in leadership, I have in-depth knowledge of the field and can be considered a member of the larger educational community. I was aware to inquire about information that I may not recognize and was unknown to me. Researcher bias is identified, as research demands detachment, skepticism, and commitment (Norris, 2007). Selection bias has already been established in the participant selection process for this study and was determined necessary to obtain a representative sample of the population.

Poggenpoel and Myburgh (2003) suggest another bias of the researcher not being sufficiently prepared to conduct field research. Although my knowledge of Impact Aid is extensive, my knowledge and practice of the interview process was not. The interviewing skills I possess are of a novice, but by using semistructured interview tactics, I adequately prepared questions to discuss during the interviews instead of relying on my interview knowledge to obtain data.

### **Significance**

The problem was the nature of funding distribution and the decision-making practices of the entities tasked with allocating education funding. Gibson (2010) concluded that the more reliable the revenue streams are for an individual school district, the greater the level of education students receive. Buddin et al. (2001) studied the Impact Aid program and the funding formula used to calculate funding but found that further studies were needed involving budget procedures and school district spending. Impact Aid is the only federal education program that allocates money directly to the general funds of school districts. The congressional intent of Impact Aid is to provide funding to service military-connected students, but the legislation lacks specific wording. The study filled an underresearched area of education funding: how military-connected students benefit from Impact Aid. The allocation of Impact Aid funds by school districts can have an impact on education services district-wide and have a lasting effect on the quality of education in every state.

The results of this research provided information to policy makers who can make more informed decisions when creating education legislation. Legislators at the federal level who create the legislation resulting in federal education programs like Impact Aid can make more informed decisions and have a greater understanding of how the funding they legislate are used. The results of this study may also make an impact on future legislation if policy-makers decide that the Impact Aid program should have budget guidelines. Local school districts are now more informed of how others are using education funding and implement district policies regarding decision-making and

allocation practices. This research also aides in the developments of best practices standards at the state or national level on the allocation of Impact Aid funding.

Legislative expectations, or Congressional intent, are part of Congress's process during budget development. Normally, courts develop legislative intent from statutory language and legislative history (Frickey, 1990, p. 1143). Impact Aid contained a long legislative history as part of larger congressional bills, but it lacked a clear congressional intent. Impact aid has always been described as being designed to assist local school districts that have lost property tax revenue due to the presence of tax-exempt Federal property (U.S. Department of Education, 2017). The absence of clear, statutory language allows for the appropriation of Impact Aid funding with no clear guidelines on how the funds are to be spent in assisting local school districts.

Often, legislators make poorly informed decisions due to lack of knowledge and information and are not aware of the impact of their budgeting decisions. By providing thick and detailed research through five case studies, the results may aid in changes in public policy about education funding and Impact Aid. The practical outcome of this study is that it provides insight into a policy that is not well known and how the policy is currently implemented. With more understanding at the national, state, and local level, more informed decisions can be made in regard to the Impact Aid program and military-connected students.

Within the scope of this study, the results provide information that could create positive social change with the school districts servicing military-connected students to ensure that military-connected students receive adequate and equal educational support.

By conducting interviews with individuals from five school districts, those districts can self-evaluate their decision-making and allocation practices that currently may be unknown. The results of the study provide information to school districts servicing military-connected students and change their decision-making and allocation practices. Nonmilitary-connected students would also be impacted, as the school district servicing both types of students provides the same education to all students. If Impact Aid is underfunded or overfunded, the nonmilitary students will be impacted by the change. One district making those changes will lead to sharing information to other military-connected school districts, creating a wave of change in the way Impact Aid is used.

### **Summary**

With over 100 military installations in the United States, the impact on local school districts can be a burden as it is federal land that houses over 1.4 million members and their families (*Military Occupational Outlook Handbook*, 2014). Impact Aid was created to alleviate the burden on local school districts by providing funding to educate military-connected students. The theoretical foundation of Sielke's (1995) garbage can theory was applied in this qualitative study to analyze how the decision-making and allocation practices of Impact Aid are impacting military-connected students. Conducting multiple case studies provided a more detailed understanding of the budgeting process in the allocation of Impact Aid by local school districts. In this qualitative study, I conducted document reviews and semistructured interviews that produced detailed case studies to answer the two RQs. Impact Aid is crucial in the education of military-

connected students as it provides school districts with funding that they would otherwise not receive due to federal land within the district.

In Chapter 2, I provide a detailed description of the literature review that examines the need for Impact Aid and the history of federal education aid. In this chapter I also detail the history of Impact Aid and use current resources to discuss what is currently known about federal education funding, specifically Impact Aid.

## Chapter 2: Literature Review

### **Introduction**

In 2013, just over 1.4 million active duty military members lived on over 100 installations across the United States (*Military Occupational Outlook Handbook*, 2014). These installations impact local education funding as they house many families but do not add to the community property tax base. To alleviate problems, Congress established Impact Aid to assist local schools that have lost property tax revenue due to the presence of the tax-exempt property. School districts receiving Impact Aid have more problematic funding issues when federal payments are severely cut or not dispersed at all due to a government shutdown and sequestration. Without having a comprehensive understanding of how districts allocate Impact Aid funding, policymakers make uninformed decisions affecting Impact Aid.

The purpose of this study was to analyze the funding and allocation practices of individual school districts participating in the Impact Aid program. I used a qualitative method to investigate school districts funding allocation practices and how military-connected students are affected and documented where money is being allocated and what programs or services are funded with Impact Aid funds. Using a multiple case study approach, the qualitative research provided detailed information on allocation practices and understanding of how Impact Aid is used by school districts to educate military-connected students.

Although studies have been done on the Impact Aid program, as well as studies on decision-making theory, studies have not been conducted regarding the decision-

making process of the allocation of Impact Aid. Buddin et al. (2001) studied the Impact Aid program and concluded that military-connected students and civilian students had comparable levels of education. As the study concentrated on the funding formula for school districts to receive funding, it did not include what happened after the funding reached the local level. Many independently conducted studies regarding financial aspects of school district funding in various locations were done, but none concluded any opinions regarding budget decision-making procedures at the school district level (Chichura, 1989; Guthrie, 1996; Gibson, 2010). These researchers concluded that further studies on budget procedures and school district spending needed to be conducted (Chichura, 1989, Gibson, 2010, and Guthrie, 1996). Conducting a study on budget decision-making practices within school districts using Impact Aid federal funding helped address the gap that currently exists in the academic literature regarding school district budgeting and created a greater understanding of the program and its implementation.

In Chapter 2, I address three aspects of decision-making theory, how public schools are financed, the historical background of federal involvement in public school finance, the importance of public school finance, school budget and allocation practices, and the history of the Impact Aid program.

### **Literature Search Strategy**

I conducted searches through EBSCO, Google Scholar, ERIC, JSTOR, Sage Premier, and ProQuest to examine peer-reviewed journal articles, books, and other scholarly literature. My search terms included *Impact Aid*, *Elementary and Secondary*

*Education Act, school district budgeting, budget theory, decision-making theory, rational budgeting theory, incremental budgeting, garbage can budgeting, public school finance, public education finance, public school funding, public education funding, education appropriations, and Impact Aid appropriations.* I synthesized scholarly literature to understand the topic and successfully create a knowledgeable literature review.

### **Theoretical Foundation**

The theoretical foundation for this study was derived from Sielke's (1995) decision-making theory. Sielke (1995) developed decision-making theory with Key's (1940) budget theory as the foundation. Out of budget theory developed decision-making theory, which incorporates three aspects: rational, incremental, and garbage can. I applied the overarching budget theory to this qualitative study as a way to analyze the decision-making process for how Impact Aid was spent. I then applied decision-making theory to examine the financing choices of school districts when utilizing Impact Aid funding.

### **Budget Theory**

The first individual to write on public finance and distribution expenditures was Walker in *Municipal Expenditures* in 1931. Walker's progressive budget theory centered on the opportunities of urban life and focused on the expenditures of city governments. In these writings, Walker reviewed the theories of public expenditure and discovered a consistent pattern in spending in municipal agencies. Walker's theory discovered a distributional norm and produced four progressive values: honesty, economy, proportion, and efficiency. Walker's budget theory was created with the hopes to aid in decisions for

government allocation expenditures and provide economic thought to government agencies.

It was not until 1940, when Key focused attention on the problem of government expenditures and allocations, did budget theory become further developed to what it means today. Key brought to light the lack of literature on budget theory and proposed a basic budgeting problem: On what basis shall it be decided to allocate  $x$  dollars to activity A instead of activity B (Key, 1940)? Key's essay included skepticism on a government budget and the sole reliance on individuals trained in accounting when most government officials who have the power of the budget have no such background. *The Lack of Budgetary Theory* drew attention to the most significant aspect of public budgeting: the allocation of expenditures and the lack of academic writings on the topic. Key's definition of budget theory is widely used today and has not only made a significant impact on economics it has formed the foundation of decision-making theory in government and public policy organizations.

### **Decision-Making Theory**

After Key's definition of budget theory had gained momentum in public finance, the 1950s brought more questions on decision-making as an aspect of the budget theory. Rational decision-making was first to appear in the literature, further developing into three different aspects of the theory: rational, incremental, and garbage can.

**Rational decision-making.** Historically, rational decision-making has taken many stages and undergone changes since its emergence into the literature in the 1950s. Over time, the theory has remained relevant and has developed four stages of the theory

that help scholars and practitioners evaluate and synthesize literature. According to Andersen and Andersen (1977), four stages define decision-making theory: “1) preoccupied with the rational, 2) critiques and extensions of the rational decision, 3) creation of fully articulated alternatives to the rational, and 4) a multi-perspective view of decision making” (p.3). The four stages of the traditional rational decision-making theory have seen modifications to meet the needs of practitioners but remain the essence of traditional theory.

When the theory first appeared in literature in the early 1950s, the literature focused on rational organizations and economics (March & Simon, 1958). In 1958, the first annotated bibliography on the decision-making process was published, establishing three areas of decision-making: behavioristic, organismic, and rational (Gore & Silander, 1959). At the time, scholars defined the theory as a deliberate act of selection by the mind to evaluate competing alternatives and select the one that will accomplish set goals (Fishburn, 1972). Decision-makers, according to the theory, had the capability of looking at all possible outcomes and making the most optimal decision (Andersen & Andersen, 1977).

The first stage, preoccupied with the rational, led into the second stage of decision-making theory: critiques and extensions of the rational tradition. It was thought by many authors, including Simon (1957), that organizations and humans were not capable of making decisions while considering all possible alternatives. Simon (1957) concluded that humans were incapable of making purely rational decisions because humans were social beings and accommodated a dual nature when making decisions.

The third stage helping define decision-making theory was the creation of fully articulated alternatives to the classical rational tradition. March and Simon (1958) and later Cyert and March's (1963) organizational theory of decision-making created a new definition that was to replace the classical theory of the firm (Andersen & Andersen, 1977). While Cyert and March's (1963) theory concentrated on the subject of economics, other definitions came out in the fields of political science and international decision-making. The extension and definitions of rational theory had begun to move so far away from its original definition that it represented an entirely new view on the subject rather than modifications to the old.

As many alternative theories and definitions emerged, scholars attempted to integrate them. The fourth and final stage of rational decision-making, a multi-perspective view, allowed scholars to reunite the field with literature integrating the various theories. Allison (1969) concluded that decision-making theory was multidimensional, and analysts have multiple aspects to better understand the complex dimensions of the decision-making process (Allison, 1969). This definition allows for consideration of all previous theories as alternatives before arriving at a decision.

Chaffee (1983) took the theory a step further and applied it to budgeting. Studying the budgeting process of Stanford University, Chaffee concluded that there was evidence of rational decision-making. The budget process presented prioritized goals, considered a wide range of expenditures, analysis of benefits, and discussion of maximizing goals. Chaffee (1983) outlined rational decision-making as a theory with six characteristics. The first characteristic of the theory is knowledge of the obtainable goals. The second

characteristic requires information to reach those goals be easily obtainable, with the third characteristic requiring that adequate resources be available. Further characteristics require that the expectations be achievable, the cause-effect relationship be known, and the effects be measurable (Chaffee, 1983). Cibulka (1987) used Chafee's outline and explored rational decision-making in educational settings. Cibulka (1987) concluded that the budgeting process should include the prioritized community goals when making funding decisions to allocate programs.

**Incrementalism.** Incremental decision-making is first seen in the work of Lindblom (1959). Lindblom presented a decision-making strategy referred to as disjointed incrementalism, which submits that rather than evaluating all outcomes, decision-makers list only those outcomes that personally occur to the individual and select the first alternative proposed. Lindblom (1959) stated that this type of decision-making in regard to budgeting is seen in public organizations and bureaucracies. He concluded that there were five common strategies to incrementalism, and by simplifying information, a decision-maker could make a rational decision.

The first strategy Lindblom (1959) conceptualized in incrementalism was the requirement that the decision-maker limit comparisons to the policy that is already in effect. The second strategy was for decision-makers to restrict the number of alternatives to decide as a way of simplifying. The third strategy that Lindblom argued was that the decision-maker sequentially evaluate alternatives and choose the first one that seems minimally acceptable. The fourth strategy consisted of decision-makers ignoring the full range of consequences and limiting their attention to evaluations of the consequences of

alternatives from the impact of the current policy or budget. The final strategy Lindblom discussed was that the decision-maker have knowledge that the choices made were subject to revision until an acceptable alternative was chosen.

In the late 1950s and early 1960s, Lindblom (1959) applied the theory of incrementalism to public budgeting. Lindblom (1959) concluded that this process was used in public organizations because public organizations have difficulty identifying and agreeing on budgetary priorities (Sielke, 1995). Wildavsky (1964) studied the ways in which budgetary processes and conflicted objectives resolved differently into precise monetary allocations and believed that incrementalism as a means of simplifying complex calculations and smoothing political decisions. He concluded that budgeting is fragmented in the budgeting process of an organization, as each department requests funding without considering the budget as a whole (Sielke, 1990). As Barber (1968) described, the incremental decision-making approach looks at budgets in a historical manner, concentrating on previous budgets and working with them. This approach leads to what Berry (1990) found: small segments are concentrated on rather than the whole budget, and changes tend to be incremental due to marginal modifications from previous years' budgets (Berry, 1990).

**Garbage can.** Garbage can decision-making was developed by Cohen et al. (1972) to describe what occurs in organized anarchy. With a garbage can model, money is put all in one place, and priorities of programs do not outwardly exist. They found that decision-makers shift from problems more frequently, and have no reliability of results. Within this type of organizational model, Cohen et al. (1972) concluded that decisions

are made either by resolution, oversight, or flight. Resolution decisions focus on decisions made over a length of time, requiring multiple discussions before a decision can be made. Oversight decisions are decisions made hastily and without much thought to existing issues that impact an organization. The final form of garbage can decision-making is by flight. This process requires a longer time table, as organizations can be hesitant to make a choice associated with known problems. Once the problem has dissipated or attached itself to another choice, the decision is more easily made by the organization. This type of decision-making does not solve long term problems for an organization and only addresses the current needs (Cohen et al., 1972).

Sielke (1995) used previous budget theories and applied the theories to the decision-making process. Sielke (1995) presented findings that highlighted the differences in budgetary decision-making in school districts of varying wealth. Sielke concluded three types of decision-making: rational, incremental, and garbage can. Sielke (1995) found that districts with uncertain wealth used garbage can decision-making, and proposed that resource-allocation decisions need to be made in advance of new fiscal years to eliminate the uncertainty in the budgeting process. How decisions are made became extremely important in the field of budgeting and finance.

The issue of the school district budgetary decisions is a critical topic among scholars and practitioners in the public administration and school finance fields (Kim & Eom, 2015). Decision-making theory has been applied to many subjects but is not extensively used the field of education budgeting. Even with the limited studies available, it is evident that garbage can is the dominant theory when analyzing budget decision-

making processes. In a study conducted by Rubin (1977), five universities and the decision-making process and budget was analyzed and found that garbage can model of decision-making was most frequently used. When faced with budget cuts and uncertainty, universities increased the utilization of resources and no longer focused on maximizing goals. The increased uncertainty led to less timely decisions and budgets were not approved until the fiscal year was well underway (Rubin, 1977). Subsequently, Levine and Rubin (1980) continued research on decision-making and allocation practices. Levine and Rubin theorized that there existed four aspects of a quality of budgeting decision. A quality budget decision would depend on relevant information provided, the quality of that information, how many times a problem was discussed, and the timeliness of the decisions. Levine and Rubin (1980) also discovered that decreased resources resulted in an increase in the efficiency of the organization as well as an increase in fiscal stress.

Several studies suggest garbage can theory is prevailing among budget decision-making in local school districts. One study highlighting four schools in Pennsylvania found that garbage can decision-making was most prevalent during the budget decision-making process, but that incremental and rational theories also played a role in regards to the source and amount of revenues provided to the school district (Chichura, 1989). Guthrie (1996) also observed budgeting procedures of school districts with education funding and suggested that some budgeting procedures made it very difficult to observe spending patterns among schools. Although Guthrie did not specifically apply the decision-making theories to his analysis, he emphasized that the decision-making process played a major role in how school districts allocated funding. Guthrie (1996) went on to

say that the lack of information regarding the decision-making strategies among school districts impacts the efficiency and equity of the budgeting process. Most recently, Gibson (2010) applied decision-making theory when he conducted a study comparing education funding among public school districts in Rust Belt states. Gibson (2010) found significant disparities in property tax revenue in districts with high minority enrollment. Gibson (2010) discussed garbage can decision-making as the most common theory applied to the budget process he witnessed during his study but called for further literature on school district spending policies. In another study, differences in spending practices among elected school boards compared to appointed school boards were examined (Kim & Eom, 2015). It was concluded that there was a difference of spending when comparing elected school boards to appointed school boards, but the study failed to investigate how the funds were being appropriated and emphasized the need for more literature on how budgetary decisions are made in school districts (Kim & Eom, 2015).

How districts allocate revenue is an important issue in the field of education funding, as education services district-wide have a lasting effect on the quality of education. As public school districts commonly use garbage can budgeting (Rubin, 1977) I applied Sielke's (1995) garbage can budgeting theory to five school districts receiving Impact Aid federal funding and analyzed how the budgeting impacted military-connected students. These budgeting decisions shaped the study by guiding the data collection process and determined the effect Impact Aid funding has on military-connected students. The results of this study document the allocation process of school districts that budget

Impact Aid funding, and the distribution mechanism of districts using the funding for the education of military-connected children.

Garbage can theory played a vital role in understanding how school districts allocated funding received from the Impact Aid program. Currently, little research exists on the procedures of how funding is appropriated, if the military-connected students are benefitting from the funding provided by Impact Aid, and what budgeting decisions are made by school districts when Impact Aid funding are decreased or cut. Previous literature has used decision-making theory in school budgeting, and I will extend those studies by showing how Impact Aid is allocated among school districts (Chichura, 1989; Guthrie, 1996; Gibson, 2010; Kim & Eom, 2015).

### **Literature Review**

To understand the role of Impact Aid in school funding, I will discuss the history of public school finance; the way states distribute school funding, the evolution of federal funding for public education, and the current status of public education funding. The history of public school finance is discussed in four central themes: Colonial time, the Constitution and the states managing of education, taxation as a funding source, and funding inequalities. I will then address federal involvement in public education and a detailed description of the Impact Aid program.

### **History and Evolution of Public School Finance**

The United States Constitution specifically states in the Tenth Amendment that those powers not specifically delegated to the United States government is reserved for the states. As so, states and cities assume local control over public education and

financing. Each state constitution requires that the state offers free public education, and given the power to legislate educational powers. The states, as separate entities, regulate curriculum, teaching methods, instructional materials, and education standards.

**The beginning of the public school system.** The first legislation regarding finance for schools was the Massachusetts Bay School Law of 1642, establishing that each town was required to determine if children were receiving an education of religion and capital laws of the Commonwealth (Alexander & Salmon, 1995). In 1647, the legislation was amended to include that each town of fifty or more people would provide wages to provide for a teacher, and all towns with more than 100 were required to provide a school building (Verstegen, 2011). The first local public schools were established in 1720 in the following colonies: Connecticut, Maine, New Hampshire and Vermont.

By the 1830s and 1840s, the common schools movement sought to design a universal education that prepared individuals for citizenship, moral education and cultural unity (Gomez-Valez, 2008). The common schools movement, led by Horace Mann, argued that political stability is dependent on universal education (Cremin, 1957). With concerns over raised taxes and a religious division, the common schools movement met much opposition. Over time, however, the common schools initiative developed into the model of education in the United States.

After the colonial period and the common schools movement, all states began to participate and create laws enforcing public education. By 1900, compulsory laws existed in 34 states that required children to attend school until age 14, which resulted in 72% of

American children attending school (Lingwall, 2010). By 1918, all states had laws requiring children attend school, suggesting that education was becoming a legal and social standard in the country (Katz, 1975).

**The changing of the common schools.** It was not until 1957, in response to Russia and *Sputnik*, did the United States federal government begin to evaluate the quality of public education. As a result, states began to focus curriculum on math and science (“Federal Role in Education,” 2012). New math and science subjects with higher standards were added to state curriculums across the country to raise the level of education in the United States. This focus on education resulted in an increase in high school graduation rates, which grew to a total of 65%. By 1960, the national per pupil expenditure was \$440 (National Center for Education Statistics).

Beginning in the 1990s education reform at the state level became more prevalent and increased throughout the decade. Education in the 1990s focused on four components: content standards, performance standards, assessments, and accountability systems. Between 1990 and 1995, the development of English and language arts standards had increased from 20 states to 49 (Hurst, Tan, Meek, & Sellers, 2003). Other subjects, such as math, also saw an increase in the development of state standards, going from 25 to 49. Science standards developed grew from 23 states to 46, and implemented social science, and history standards were seen in 46 states, previously 20 (Hurst, Tan, Meek, & Sellers, 2003). Many states adopted policies funding prekindergarten, increasing credits needed to graduate high school, and ensuring all textbooks aligned with state standards. Education policy in the 1990s also brought class size to the attention of state

legislators. The Education Commission of the States reported that by the end of the 1990s, 20 states had established a limit on a teacher to student ratio (Hurst, Tan, Meek, & Sellers, 2003).

During this transformative time in United States education, another form of public education was introduced. Charter schools, independently ran public schools, operate individually and are accountable for academic results established by the state. Charter school legislation was first adopted in 1991 in the state of Minnesota, and by the end of 1999 had expanded to over 1,500 schools in 36 states and the District of Columbia (Nelson, et.al., 2000).

With the increasing involvement due to education reforms on education facilities, curriculum design, education methods, instructional materials, and education standards, education services have become a top priority for states. As local school districts are burdened with increasing services with the same and unchanging tax source from the local community, local school districts look to increase state governments' supplemental education allocations. As maintaining educational standards in every district across individual states is a priority, state governments are left with the responsibility of allocating enough funding towards education each budget period.

**Funding public education.** Taxation began and became the accepted method of funding for public schools by the late 1800s. By 1890 all states had tax-supported public schools (Verstegen, 2011). In 1890, government revenues for public schools totaled \$141 million; with 18% drawn from state school taxes and appropriations (Benson & O'Halloran, 1987). It was soon discovered, however, that cities and towns had unequal

finances and abilities to meet the needs for education. The mid-1900s established additional education funding for disadvantaged students, aiding states in providing equal education services to all students.

The United States Constitution did not give the federal government powers over education, and per the Tenth Amendment states and local governments are responsible for public education revenue. Each state determines in a yearly budget how much it will appropriate to public education (Checkley, 2008). States use funding formulas to allocate funding to local public school districts (Zhao & Bradbury, 2009). However, no two formulas are alike, as every state specifies a formula to the needs of the state. Local school districts receive funding from the state government through a funding formula outlined in state law. Funding formulas contain two parts: 1) the base or foundation funding, and 2) categorical funding. The foundation funding is meant to cover basic costs of educating students, while categorical programs only fund specific programs (Cross, 2015). After the state sets a minimum foundation amount, local property tax is determined by the community surrounding the school district. The state will fund the difference between the property tax and the foundation amount.

States allocate funds to school districts for K-12 education based on five specific budget formulas: 1) foundation, 2) flat grant, 3) local-effort equalization, 4) equalization, and 5) full state funding. Most states employ one of the formulas, while others use them in combination. The foundation formula is the most common and guarantees a minimum amount of funding for each school district and necessitates individual districts to provide a share of the amount through state-mandated tax rates, with the difference between the

two determining how much state aid is needed (Hightower, Mitani & Swanson, 2010). As of 2010, 37 states and the District of Columbia employ the foundation method as state school funding formula (Hightower, Mitani & Swanson, 2010). The equalization method is used in 22 states and determines funding levels based on property wealth, taxation effort, and local school district needs. Local-effort equalization focuses on the ability of an individual school district to raise funds through local taxes, with the state providing the remainder of the funding to meet the equalization amount. Of the 50 states, 21 use this formula in combination with other formulas. North Dakota is the only state that strictly uses this funding formula as the only means to appropriate funding to K-12 education (Hightower, Mitani & Swanson, 2010). Five states use a flat-grant approach when funding K-12 public education, and is based on a set amount of dollars allocated on a per pupil unit, and does so in combination with other funding formulas. The final type of funding formula, full state funding, is used by five states and requires the state to determine the level of education expenditures in a district, and provides 100% of the expenditures (Hightower, Mitani & Swanson, 2010).

Local governments are delegated power over the educational services provided within their jurisdiction, and mainly fund education through local property taxes. Local school boards, elected into office by constituents, have the power to make funding decisions for individual school districts. Forty-three states in the United States allow for fiscally independent school districts, which allow the local school board to set a tax rate to support the education budget for that community (“The Progress of Education Reform,” 2013). These school districts work within the state constitution and legislative

limits to approve expenditures of the collected funds raised by the increased tax rate (Lunenburg, 2010).

The remaining seven states are fiscally dependent school districts and are not able to impose taxes on the community to pay for education services. In these school districts, the Board of Education creates a budget that specifies expenditures and needed revenue (Lunenburg, 2010). Then the local government must approve a budget submitted by the school board and levy taxes to meet it while meeting the specifications set forth by the state Board of Education (“The Progress of Education Reform,” 2013). States that are fiscally dependent and require a municipal government to appropriate taxes for education are Illinois, Alaska, Maryland, Massachusetts, New Hampshire, New York, and Pennsylvania (Alexander & Alexander, 2011).

As states struggled with funding education through sales tax, income tax, property tax, and lotteries, inequalities in appropriations became more apparent, and the method of appropriation was questioned. Ornstein (1978) conducted a study in response to these concerns and discussed states’ ability to finance education, and explained that most states distributed education funds based on an equalization plan. He concluded that two basic types of equalization plans existed: 1) the foundation plan, and 2) the power-equalizing plan. The foundation plan, Ornstein (1978) found, was used by 60% of the states to guarantee a minimum annual income per student for all school districts. The newer power-equalizing plan was used by the states paying a percentage of the locally determined school expenditures, in an inverse ratio to the wealth of the district (Ornstein,

1978). Although there were equalization plans in place, various levels of academic achievement due to inequalities showed to be a challenge.

A federal report published in April of 1983, *A Nation At Risk*, described a very low public school academic achievement due in part to unequal funding issues among states. As a result, the commission publishing the report specified that the federal government needed to play a larger fiscal role to provide for special groups of disadvantaged students (*A Nation At Risk*, 1983). The allocations of public school revenues also changed, with a decrease to a total of 6.6% in federal funding, 45.1% local funding, and 48.3% state funding (Odden, 1985). In 1989, states were once again concerned with whether educational opportunity required equal access to effective programs, and not just access to equally funded programs (Strickland, 1991).

**School funding and educational outcomes.** Research on the impact of school funding on education outcomes and student achievement has long been discussed and researched in various ways, and most scholars agree that there is a cause-and-effect relationship with funding and educational outcomes. Papke (2005, 2008), Aos & Pennucci (2012), and Baker (2012) evaluated education reforms and the link between school funding and educational outcomes determining that there was a positive relationship between funding and higher test scores and graduation rates. Papke's (2005, 2008) research showed increased test scores in grade four and seven in districts that had greater school funding. Increased funding and student achievement were proven by Aos & Pennucci (2012) to be much stronger in the lower grades than in the higher grades, suggesting early education has a more important role in overall student achievement.

Baker (2012) collected empirical evidence similar to Papke (2005, 2008) and Aos & Pennucci (2012) that showed school districts with larger budgets were more empowered to appropriate funds productively.

With a positive relationship between school funding and student achievement, decreasing funding to an already stressed budget is creating dramatic changes in educational outcomes. Event-study and instrumental variable models conducted by Jackson, Johnson, and Persico (2015) revealed that a 10% increase in per pupil spending for 12 years of public school leads to more completed years in education, higher wages, and a reduction in adult poverty levels.

Lafortune, Rothstein, and Schanzenback (2016) also used event-study framework to collect evidence of the impact of school finance reforms on student achievement. Using samples from the National Assessment of Educational Progress, it was concluded that school finance reforms had no immediate impact on student achievement, nor did reforms affect the achievement gap regarding wealth or race. However, a long-term impact of reforms on student achievement showed an increase, establishing a positive relationship between school finance reforms and student achievement. (Lafortune, Rothstein & Schanzenback, 2016).

**Tensions over funding inequalities.** Since the beginning of the public school system, the inequalities of financing education services has been a concern for local and state legislators. As early as the 1900s, it was pointed out that the public education system needed to equalize educational advances, and proposed that funding be appropriated based on the number of teachers needed, and not the amount of students

being serviced (Verstegen, 2011). Still a cause for concern in 1923, the state of New York decided to inquire into solutions to identify and alleviate disparities in education funding. The Educational Finance Inquiry Commission of New York Schools identified deficiencies in the states' finance system and was the first state to adopt Strayer and Haig's foundation program (Verstegen, 2011).

The foundation program intended to equalize education services for all students by allowing states the ability to establish allocation guidelines needed to provide an adequate education (Picus & Blair, 2004). The adequate resource level must be achieved by raising enough funding through property tax. In order to provide equal per-pupil funding, the foundation program requires that all local property be taxed to ensure public school funding (Augenblick, Myers, & Anderson, 1997). The state then funds the balance, usually providing poorer school districts with increased funding to meet the adequate resource level (Picus & Blair, 2004). Strayer and Haig's foundation program became widely known, and many progressive states adopted the ideas on equalizing education services throughout the mid-1900s and the theoretical foundation is currently used in some form by every state.

Although the theoretical foundation of Strayer and Haig's program remains the same, the implementation varies depending on the state. In some states, students base-level or foundation-level fluctuates by school district (Checkley, 2008). In others, school districts can choose to levy tax rates above the required level, allowing wealthier districts the ability to generate more funding per-pupil (Picus & Blair, 2004). Along with these issues of inequalities, the lack of updating the foundation level is a concern. Inflation and

increased financial needs of the district are often not updated in states foundation programs and make it difficult to meet increasing educational needs (Picus & Blair, 2004).

Beginning in the 1970s, Congress began to focus on the inequalities of public school finance. Elementary and secondary education enrollment numbers reached the highest amount ever, with just over 51 million students (Timar & Guthrie, 1980). 1971 also brought the landmark case *Serrano v. Priest*, declaring California financing of public education unconstitutional (Strickland, 1991). The California Supreme Court determined that the difference in per pupil educational expenditures among local school districts was unconstitutional (*Serrano v. Priest*, 1971). *Serrano v. Priest* was the first case to establish education as a fundamental right and that the wealth of a district directly impacted the level of education received. Those being educated in lower-income districts were not being funded appropriately; resulting in unequal education services and subsequently the denial of equal protection of the law under the 14<sup>th</sup> amendment (*Serrano v. Priest*, 1971). However, this case did not address the significant funding disparities among school districts within states.

The Supreme Court considered intra-state funding in *San Antonio Independent School District v. Rodriguez* (1973) when parents sued multiple school districts and the state of Texas for their method of appropriating education funding. The lawsuit alleged that the method of financing used by the state of Texas violated the equal protection clause of the 14<sup>th</sup> Amendment to the United States Constitution, as it was wealth-based discrimination (*San Antonio Independent School District v. Rodriguez*, 1973). Although

the court recognized the difference in per-pupil expenditures among school districts, the Court voted to reject this view on the grounds that there was not a denial of educational opportunities just because there was a difference in spending levels. They further concluded that the state of Texas provided each student with an opportunity to attend school, and the inequality of funding was not adequate grounds to interfere with a state funding system (San Antonio Independent School District v. Rodriguez, 1973).

After hearing the San Antonio Independent School District v. Rodriguez case, as well as the Serrano v. Priest decision, the California State Senate enacted Senate Bill 90, imposing a spending ceiling on school districts in an attempt to close the expenditure gap (Guthrie, 1983). This bill caused some momentum across the United States, and by the mid-1970s, 25 states had imposed spending limits on school districts, while over 30 school finance cases based on the fourteenth amendment were being heard by courts (Strickland, 1991).

The next decade the United States encountered its most prolonged recession since 1945 (Odden, 1985). Real revenues for schools dropped in 1980 and 1981, along with cuts in federal aid. This cut caused poor fiscal health among the states, with many states cutting education appropriations midway through the fiscal year (Odden, 1985). The tax and funding limitations established in the 1970s discouraged state governments from raising taxes to compensate for the loss of funding (Odden, 1985). Federal aid had increased to a national average of 9.3% in 1980, with the local government covering 42% and the state covering 48% of education expenditures (Odden, 1985). This cause even greater disparities in per-pupil spending among school districts and states.

Further impacting the future of public education funding, courts in Kentucky, Montana, and Texas declared their state school financing plans unconstitutional in 1990 (Strickland, 1991). The states argued that the state finance system was unconstitutional based on the fact that local school districts were forced to rely on permissive tax levies that voters could reject (Strickland, 1991). Later, the New Jersey Supreme Court held that the state must allocate more funding to the education of disadvantaged children based on their special needs (Abbott v. Burke, 1990).

With many states beginning to allocate more funding to education, the disparities in funding to different school districts became more evident. Public education began to rely less on property taxes, and incorporate student activities, fundraisers, textbook sales and food service revenues into their revenue budget (Johnson, et.al, 2011). With the reality of a shrinking budget, finding adequate funding sources for education will continue to be a challenge. Additionally, finding solutions to close the disparity gap among state and local school districts will continue to be an issue to provide quality education services to students.

**Current status of public school funding.** As a result of the Great Recession beginning in 2007, 300,000 public school teachers and other school personnel lost their jobs, and class size reduction was removed (Evans, Schwab & Wagner, 2014). As most school districts relied heavily on state finance, revenues fell sharply due to the decrease in income tax and sales tax. Per pupil expenditures fell in 38 states, with 18 states decreasing per pupil expenditures by 18% or more (Evans, Schwab & Wagner, 2014). During 2009, state sources covered 46.7% of funding for elementary and secondary

education in the United States. Local revenues made up an additional 43.8% and federal revenues 9.5% respectively for the nation (U.S. Census Bureau, 2011). With the help of the American Recovery and Reinvestment Act of 2009, nearly \$100 billion was provided for education (Evans, Schwab & Wagner, 2014). In 2011, the total expenditures for K-12 public education equaled \$621 billion, which was a 3% decrease from 2010. State and local governments provided 87.5% of all revenues, and the federal government was at its highest percentage ever, with 12.5% funding contributions (National Center for Education Statistics). The fiscal year 2012 showed another decrease, with overall total expenditures for education totaling \$600.5 billion, a 3% decrease from 2011.

The most recent data, published in June of 2015, is for the fiscal year 2013. 2013 saw a slight decrease in overall education funding, totaling \$597 billion. This decrease led to a decrease in the per-pupil expenditures, with a national average of \$10,700. Funding disparities remained across the United States, with New York spending \$19,818 per student, and Utah spending \$6,555 (U.S. Census Bureau, 2015). Public education revenue also changed, with a lower percentage of funding coming from federal appropriations. As of 2013, 45.6% of revenue comes from state governments, 45.3% from local governments, and 9.1% from the federal government (U.S. Census Bureau, 2015).

School finance continues to be largely dependent on local funding. Many states have begun to conduct adequacy studies to determine what the adequate level of funding should be for their state education system. Between 2003 and 2014, 24 states conducted school finance adequacy studies, with 23 states concluding that more funding was

required to meet current education standards (Aportela, Picus, Odden, & Fermanich, 2014). Most recently, five states conducted adequacy studies: District of Columbia and Colorado in 2013, and North Dakota, Arkansas and Vermont in 2014. All states determined that the foundation level in their state needed to be increased to meet changes in education services provided, cost-of-living, district size, student enrollment, and special needs student adjustments.

### **Budget Decision-Making in Schools**

The budget process is extremely important, as it is a reflection of a school district and education plan in numerical terms. When deciding how to budget, school districts need to look at three components: 1) educational program of the school district, 2) the revenue needed to implement the education plan, and 3) the expenditures needed to implement the education plan (*Smart School Budgeting: Resources for Districts*, 2012). Implementing this basic budgeting structure provides the foundation for individual school districts to base decisions about the level of expenditures needed to operate a school district (Lunenburg, 2010).

A vast majority of the 15,000 public school districts in the United States have authority about how to spend the funds it receives (Lunenburg, 2010). As school districts are allotted state and federal funding, budgeting decisions are often a collaborative effort, known as site-based decision-making, among the district superintendent, business manager, school board, and stakeholders such as employees of the district. School boards are responsible for approving a district budget and expenditure decisions for the district it is serving. School boards and districts can decide which state and federal education

programs and subsequent funding to participate in, except those programs mandated by state and federal law. The Government Finance Officers Association published a report in 2015 outlining the best practices in school district budgeting. As part of this report, five steps made up the ideal school budgeting practice: “a) plan and prepare, b) set instructional priorities, c) pay for priorities, d) implement plan, and e) ensure sustainability” (Government Finance Officers Association, 2015). Although ideal school budgeting designs are summarized, each independent school district has individual philosophies, priorities, goals, and individuals to serve, creating diverse spending patterns across the country.

While budget line items vary from state to state, school districts must allocate funding including a budget for transportation, facilities, energy, health and safety, instruction, curriculum and staff development, food services, library services, counseling services and school leadership and support (Ellerson, 2010). On average, school districts allocate over 80% of education funding on personnel and benefits, making teacher salaries critical on the success of student achievement. More funding allocated to personnel often results in smaller class sizes, which researchers have positively identified a relationship with student achievement (Le Floch et al., 2014). Fiscally independent districts that employ site-based management programs have been found to allocate funding into teacher empowerment and improving school climate (Summers & Johnson, 1994). Research on the impact of budget decisions and allocations to particular programs or aspects of education is extremely useful in understanding positive and negative relationships between decisions and funding levels. However, research exploring why

those particular decisions are made would be useful in a holistic understanding of the budgeting process of a school district.

Fisher and Papke (2000) concluded that local governments and school districts react differently to different types of education revenue. Research has shown that there was increased spending associated with all types of education funding grants and that spending with the local tax revenue took more time and more collaborative efforts to reach final decisions (Fisher and Papke, 2000). Perhaps the most common grant, and the one most similar to Impact Aid as it is designed for a specific group of students, is Title I. Gordon (2004) reported that Title I funds were appropriated with less debate and collaboration, and faster than other funding by local governing agencies because guidelines were given on how to appropriate the funding. General funds, or the “regular education” fund, were found to require more time commitment, more discussions by budgeting authorities, more collaboration, and a longer overall process in completing appropriations for an approved budget.

Currently, no common standard exists about how a district accounting system should appropriate education funding to central services and programs. Every school district employs a formula created by the governing board to equitably allocate funding to each school in its district. After that, lower performing schools receive additional funding according to the goals and improvement plan of the district. The decision-making process of a school board varies on personal values of the board members. Studies of school board decision-making show that interests at the individual level explain the decision-making process and that the assumption that school board members are unified actors

cannot be made. Changes in state economics and political culture also drive many local funding decisions, as districts handle daily dilemmas over resource allocation (Louis et al., 2010). The political culture of a state has a significant impact on leadership practices and education policy at all levels of government (Diem, Frankenberg, Cleary, & Ali, 2014). How budgetary decisions are made, why they are made, and what decision-making theory is used when appropriating education funding needs to be tested to conclude which theory of budgetary decision-making best addresses the education funding allocation process.

### **Federal Involvement in Public Education**

As the states have authority over education services provided within the United States, the federal government initially refrained from engaging in this area of legislation. However, over time, the federal government has become more involved, not only creating education legislation but appropriating funding through the federal budget for certain educational programs. Through explanations of failed efforts at equalization, the development of the Department of Education, the Development of the Elementary and Secondary Education Act, and the development of the No Child Left Behind Act, the federal involvement in public education will be developed.

**Failed efforts at equalization.** With the challenges outlined in the financing of state public education, the federal government eventually took a role in aiding states in provide adequate education services to students. Due to the overwhelming differences in personal income from state to state, the educational opportunities varied for different communities and states, with financial inequities becoming more noticeable as public

education aged. The earliest government proposal for educational adequacy was a bill proposed to Congress in 1870 by Representative George F. Hoar of Massachusetts. The bill intended to provide a national system of education that was operated by the states under federal standards. Senator Henry Blair introduced bills in 1884, 1886, and 1888 attempting to establish federal assistance in the form of cash grants that would be distributed based on illiteracy rates of the states, but was always denied by members of Congress (Benson & O'Halloran, 1987). A federal equalization bill was successfully passed in the United States Senate in 1946 but failed in the House. Equalization bills continued to fail in the House and Senate throughout the turn of the century.

**The development of the Department of Education.** The original Department of Education was formed in 1867, with its purpose to collect data on schools around the country and aid states in establishing successful education systems ("An Overview of the U.S. Department of Education," 2010). Due to concerns that the new Department of Education would exercise too much power over education services, the department was demoted to the Office of Education in 1868. However, topics began to arise, such as federal vouchers, school site management, tuition tax credit, and alternative schools, and were advocated by members of Congress (Guthrie, 1983). These topics resulted in a very narrow vote by Congress to establish the U. S. Department of Education in 1979. The Department of Education Organization Act (Public Law 96-88) divided the Department of Health, Education and Welfare into two cabinet positions: the Department of Education, and the Department of Health and Human Services. The Department of Education was given the primary responsibility to promote student achievement and

ensure equal access to all students ("An Overview of the U.S. Department of Education," 2010). As the role of the federal government grew, so did the responsibilities of the Department of Education. The Department of Education now facilitates and oversees most educational research, makes recommendations for education reform, distributes federal financial aid, and enforces civil rights statutes ("An Overview of the U.S. Department of Education," 2010).

**The first federal aid to education.** When the United States was in a state of emergency caused by the Depression, the federal government conducted unprecedented experiments in an attempt to help the country. As a result, the first federal aid was distributed to educational agencies across the United States. As part of the New Deal, President Franklin D. Roosevelt established the first federal aid towards education in 1933. At the time, the New Deal relief venture seemed radical compared to the current role of the federal government, as the direct development of programs and evolution of new ideas was never the responsibility of the federal government (Fass, 1982). Intended to be a temporary aid, the government launched programs for school construction and repair, the hiring of unemployed teachers, loans to school districts, and aid to rural schools. Although the specific education programs of the New Deal ended when relief was discontinued, the experiment of federal involvement left ideas of establishing new goals in the minds of legislators (Fass, 1982). Between 1941 and 1946, the United States federal government appropriated \$125 million to thousands of school districts (Schroeder, 2012). Congress continued to appropriate aid to public education and spent

years discussing appropriate federal action to make grants providing the poorer states with money to aid in meeting national standards (Benson & O'Halloran, 1987).

**The development of the Elementary and Secondary Education Act.** As a result of the Depression and the programs from the New Deal, the United States spent years seeking greater equity, efficiency, and liberty in school-finance related reforms. Portrayed as the “Age of Equality,” legislators focused on desegregation and poverty levels in education (Guthrie, 1983). As a result of the Cold War, Congress passed the National Defense Education Act of 1958 (Public Law 85-864). The NDEA provided economic assistance to states to increase math and science instruction, subjects the country felt was vital in the defense and superiority of the United States (Owings & Kaplan, 2013). Although education services were improved during this time, the equality in expenditures was still a concern to President Lyndon B. Johnson, and he declared war on poverty (Thomas & Brady, 2005). In one of the fastest bills to be enacted after being introduced to Congress, Congress passed the Elementary and Secondary Education Act of 1965 (Public Law 89-10). The Elementary and Secondary Education Act, or ESEA, remains the most expansive federal education bill ever passed. At the time of its inception, \$1 billion federal dollars was appropriated for states and school districts across the United States (Jennings, 2001). The law established the notion that students from low-income homes required more educational services than students from middle to high-income homes (Thomas & Brady, 2005).

**Goals 2000 and the development of the No Child Left Behind Act.** In 1989 an agreement among 49 Governors and the President's cabinet was reached to establish

national educational goals. In 1990, the White House formally announced the standards, known as Goals 2000 (Cross, 2015). The Goals 2000: Educate America Act (Public Law 103-227) was signed into law in 1994. The Act specified eight goals that the education system as a whole would reach by the year 2000. The first goal specified that all children would begin their school career ready to learn, promoting pre-kindergarten programs across the country. The second aimed at increasing the high school graduation rate to 90% or better by the year 2000. The third established crucial testing in grades 4, 8, and 12 in an effort to demonstrate academic competency. The fourth and fifth goal of the Act identified the need for every adult to be literate, and that the United States would be first in the world for academics. The sixth identified goal was to make all public schools in the United States drug-free, gun-free, and violence-free zones to improve learning environments. The seventh goal aimed at teachers, providing access for professional improvement through specialized programs. The final goal of the Act was to increase parental involvement in the public school system to improve the academic growth of students (Public Law 103-227).

As the goals set in Goals 2000 went unmet, President George W. Bush hosted a meeting in 2001 outlining a standards education reform with measurable goals. This idea became legislation known as the No Child Left Behind Act, passing Congress with overwhelming support, and replacing the Elementary and Secondary Education Act (Cross, 2015). This Act significantly increased the federal role in overseeing academic progress of the schools in the nation by requiring states to test students in reading and math and report results (Klein, 2015). As part of the Act, all states were required to

provide evidence of proficiency on state tests by the 2013-2014 school year. If states failed to meet goals, the Act allowed for the state to hand down sanctions and employ dramatic turnaround strategies for failing schools (Klein, 2015).

With the adoption of the No Child Left Behind Act in 2001, came increases in federal support to the state and local governments regarding education. In 2001, the per pupil expenditure average increased to \$8,259; the highest being the District of Columbia at \$14,557, and the lowest being Utah at \$5,294 (National Center for Education Statistics). However, a study conducted by the National Conference of State Legislators determined that the No Child Left Behind Act had been underfunded by \$10 billion in the fiscal year 2005 alone (Lecker, 2004). Under the Act, each child living in poverty is to receive an extra 40% of the average state per-pupil spending. The Congressional Research Service concluded that the federal government would have to pay \$30.4 billion to meet the requirements outlined in the No Child Left Behind Act (Lecker, 2004). This lack of funding put financial pressure on state and local governments to meet the needs of the No Child Left Behind Act while servicing students on a decreased budget. At this time, the nation serviced over 54 million students in over 14,000 school districts, with a total education cost of \$499 billion for the fiscal year 2004-2005 (Snyder, Dillow & Hoffman, 2008). With the pressure of financial disparities from No Child Left Behind Act and unequally financed education programs, legislators at the federal and local level sought successful solutions.

**Race to the Top and the American Recovery and Reinvestment Act.** The American Recovery and Reinvestment Act of 2009 was passed in hopes of stimulating

the United States economy. The appropriation for this bill was near \$800 billion, with \$100 billion earmarked for education (Cross, 2015). The federal government allotted over \$53 billion to states for teacher pay, construction, and modernization. Five billion dollars was used to start a new education incentives program called Race To The Top (Cross, 2015). President Obama authorized Race To The Top in 2009, a program designed at rewarding states that followed educational policies with additional federal funding. This program allotted over \$4 billion to reward innovation in state K-12 education (Abbott, 2013). According to a White House press release, the program is designed to reform five specific areas. The first sought to implement more challenging standards and assessments to increase the level of academic progress. The second was to reform the recruitment and careers of teaching staff to attract more qualified applicants. The third and fourth areas needing reform required the implementation and support of data collection systems designed to target instruction in order to increase success in struggling schools. The last focus of the program was education reform and the need for constant collaboration of all educational entities (The White House, 2009). What significantly impacted education finance was the State Fiscal Stabilization Fund, which was a one-time appropriation to the U.S. Department of Education. The Department of Education then awarded state governors funding in exchange for integrating education reforms like the Race to the Top program (Evans, Schwab & Wagner, 2014).

**The Every Student Succeeds Act.** In 2015, President Obama signed The Every Student Succeeds Act (ESSA) reauthorizing ESEA. This legislation was the first rewrite of the Elementary and Secondary Education Act in more than a dozen years (Andrejko,

2015). This bipartisan measure decreased the federal government's role in public K-12 education. The White House (2015) summarized the legislation as decreasing the burden of testing on students, providing access to preschool, providing academic standards for success in higher education, and allowing states to address achievement gaps. The multiple grant programs that were once part of ESEA from both the No Child Let Behind Act as well as Race to the Top were consolidated into a \$1.6 billion block grant. Of the \$1.6 billion, funding was targeted at the highest poverty schools and districts. The bill also established three requirements of states to maintain their federal education funding. The first requirement stated that states cannot reduce their investment by more than 10% from year to year. The second requirement was that states must demonstrate that schools received all state and local funds possible with or without federal funding. The final requirement was that districts must demonstrate that schools that receive Title I funding got at least as much state and local funding as the schools not receiving Title I funding (Saultz, Fusarelli, & McEachin, 2017).

With an increasing federal role in public education since the adoption of the Elementary and Secondary Education Act of 1965, it is very important to understand the role that federal funding has in the overall budget of state education, as well as local school district budgeting procedures. With the increase of federal intervention in providing for disadvantaged students and students with disabilities, the government also looked at other vulnerable populations, such as children residing on military installations and Indian treaty lands.

## **Impact Aid**

At the start of World War II, the United States military vastly grew, causing a large number of families to move onto military installations. With a large number of children living on tax-free government reservations, problems arose for some local education agencies when trying to provide education services. When World War II ended, hundreds of thousands of troops returned home, causing a population increase in communities surrounding military installations. This increase caused local school districts to accommodate a surge of new children requiring education services without the increase in tax base. Congress recognized and addressed this need in 1950 with Public Law 81-874, also known as Impact Aid.

Impact Aid addressed four populations of federal impaction: (a) Indian treaty lands; (b) low rent housing; (c) military bases; and (d) federal lands such as national parks, federal prisons, or VA hospitals. For the military bases, this piece of legislation was created to off-set the operating costs of schools burdened with increased attendance due to federal land and lost tax revenues. This legislation established two sections: Section two and section three. Section two addressed the local school districts that suffered a substantial burden due to the acquisition of property by the federal government, or removal of property from the district tax base if the purchase was made after 1938. Section three categorized children by need. Subsection 3(a), also known as “a” students, covered children living on federal property with a parent employed on federal property and received 100% local contribution rate, and 3(b), or “b” students covered children who either live on federal property or had a parent employed on the

federal property, who received 50% local contribution rate. The table below illustrates the reimbursement categories of federally connected students through Impact Aid.

Table 1

*Types of Federally Connected Students*

Student	Parent	Category	Weight
Resides on federal property	Civilian who works on federal property in the LEA	A(i)	1.00
Resides on federal property	Foreign military officer and accredited foreign government official	A(ii)	1.00
Resides on federal property	Is in United States uniformed service	B	1.00
Resides on Indian lands		C	1.25
Does not reside on federal property	Is in United States uniformed services	D(i)	.20
Does not reside on federal property	Foreign military officer and accredited foreign government official	D(ii)	.20
Resides in low rent housing	Does not work on federal property	E	.10
Resides on federal property	Civilian who does not work on federal property	F	.05
Does not reside on federal property	Works on federal property in same county as LEA	G(i)	.05
Does not reside on federal property	Works on federal property in same state as LEA	G(ii)	.05

*Note.* From the U.S. Department of Education Impact Aid Program, *Instructions for Completing the FY 2015 Application for Impact Aid, Section 8003*, <http://www2.ed.gov/programs/8003/applicant.html>

Impact Aid (P.L. 81-874) was reauthorized in 1954, 1961, and again in 1963 with no changes to the program. In 1964, Impact Aid (P.L. 81-874) was used by a commission on education referred to as the Gardner Commission, to help create a new policy for federal education. The commission was created to research and analyze the need for federal education aid. The commission recommended that federal aid tailor to specific needs depending on the wealth of the children being serviced (Thomas & Brady, 2005). The Commission lobbied for federal aid to education in the United States. In 1965, Impact Aid integrated into the Elementary and Secondary Education Act or ESEA. Elementary and Secondary Education Act of 1965 (Public Law 89-10) was passed, which channeled roughly \$1 billion in funds to school districts and schools (Jennings, 2001).

In 1966 -1969, Impact Aid was reauthorized as a part of the Elementary and Secondary Education Act and was amended to clarify the needs of school districts servicing military-connected students. Title VI of the ESEA was amended under the stipulation that “three percent of children in a district must be federally connected to receive Impact Aid was altered to substitute a minimum of 400 children, even if three percent were not federally connected” (White, 2008, p. 24). Impact Aid received much resistance from both Congress and taxpayers, and the first reduction to the program was seen with the reauthorization in 1968. As a consequence, the average amount of Impact Aid per eligible military-connected student was decreased, resulting in local school districts and states being financially burdened by federally connected students (Buddin et al., 2001). In 1969, H.R. 514 was passed to amend Impact Aid with a clarification on the definition of students receiving education services while residing in public housing.

Impact Aid was reauthorized again in 1970 with a budget of \$600 million. However, the reauthorization received much scrutiny, as Rosenbaum (1970) explained that wealthy communities were receiving Impact Aid without any control over how the money was spent. Rosenbaum (1970) gave examples of 20 areas receiving the most Impact Aid, with 18 having a median family income above the national average (Rosenbaum, 1970). At this time, Impact Aid was the second highest funded Federal education program but received its second set of appropriation cuts since its inception (Schroeder, 2012).

Impact aid survived, and was again reauthorized in 1974, but made a major change to the funding formula. In Senate Report No. 93-763, the section of the law prohibiting states from taking Impact Aid payments into account in developing state aid formulas was revised to reflect state trends toward equalization of educational expenditures (White, 2008). The bill stated that no payments would be made under P.L. 81-874 for any fiscal year to any local educational agency in any state if the state had taken Impact Aid funding into consideration when determining the eligibility of a school district for free public education (White, 2008). This form of Impact Aid was reauthorized in 1978. With the reauthorization also came the third appropriations cut for the program since its creation (Schroeder, 2012).

During the 1981 reauthorization process, Impact Aid severely decreased due to President Ronald Reagan's education program. Part of the President's program consolidated 43 elementary and secondary programs into one block grant, which in total was less than what the ESEA was previously funded (White, 2008). Effects of the

reduction of Impact Aid on the military were heard by Congress and recommended that Impact Aid not be decreased any further. In 1982, Congress revisited the topic of Impact Aid, and the topic of planned decrease in funding by 40 percent from the previous year (White, 2008). Many questions and discussions between Congressman and subcommittees all discussed creating federal cabinets or departments responsible for funding Impact Aid, but discussions ceased when it developed not to be feasible. Appropriations for the Impact Aid program saw a 63% decrease during the years 1981-1988 (Schroeder, 2012).

Impact Aid remained at the reduced funding level and was not addressed again until 1993 when reauthorization hearings were held. Under President Clinton's administration, Impact Aid funding was proposed to be cut even further. The Clinton administration wanted to phase out the federal properties provision, further explaining that school districts have had plenty of time to adjust to the removal of what once was taxable property (Fuller, 2014). The House budget committee identified Impact Aid as a program to phase out over time. Impact Aid was reluctantly authorized, with a new funding formula, which allowed a school district to be eligible for Impact Aid when no less than 2,000 federally connected students, or 15%, were enrolled in the district. In 1995, the Impact Aid program was funded at 53% of its appropriations, causing much hardship on to school districts (Helmick & Hudson, 1997). The reauthorization also detailed that payments in the fiscal year 1995 would be no less than 85% of what a district received in the fiscal year 1994. Along with that, payments made in the fiscal year

1996 would be no less than 85% of what a district received in the fiscal year 1995. This fiscal trend extended through to the year 2000.

In 2000, Impact Aid saw minor changes and was reauthorized as part of the Defense Authorization Bill. The changes included increased weight for off-base military children receiving education services in the funding formula, as well as some minor administration changes. Shortly after, Impact Aid was included as Title VIII of the No Child Left Behind Act, or P.L. 107-110, which extended Impact Aid through the fiscal year 2006. These changes impacted school districts severely and were brought to Congress' attention in 2003. Following many attempts at altering the appropriations for the Impact Aid program, thirty-five million dollars was cut from the program between 2007-2008 (Johnson, Cliff & Williams, 2011).

Since 2011, the Impact Aid program has seen additional large reductions in the federal budget, as it is the only federal education program that is not forward funded, and is considered under advanced appropriations. The table shown below details Impact Aid appropriations since its adoption, illustrating the decrease in funding starting in 2011.

Table 2

*Impact Aid Historical Appropriations*

Fiscal Year	Appropriations
1951	\$29,080,788
1953	\$60,500,000
1958	\$127,000,000
1965	\$332,000,000
1968	\$406,355,000
1973	\$535,495,000
1974	\$574,416,000
1976	\$730,000,000
1978	\$775,000,000
1980	\$772,000,000
1981	\$706,750,000
1982	\$441,776,532
1983	\$467,020,879
1985	\$665,000,000
1986	\$634,405,000
1988	\$685,498,000
1989	\$709,396,000
1990	\$717,354,000

*(table continues)*

1991	\$740,708,000
1993	\$738,250,000
1994	\$786,300,000
1995	\$728,000,000
1996	\$693,000,000
2001	\$993,302,000
2007	\$1,228,453,000
2008	\$1,240,718,000
2009	\$1,265,718,000
2010	\$1,276,183,000
2011	\$1,275,000,009
2012	\$1,273,765,009
2013	\$1,224,239,000
2014	\$1,224,239,000
2015	\$1,221,790,000
2016	\$1,305,600,000
2017	\$1,328,603,000
2018	\$1,414,112,000

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*Note.* From The Military Impacted Schools Association, *History of Impact Aid Appropriations*, [http://militarystudent.whhive.com/Content/Media/File/MISA/history\\_of\\_appropriations.pdf](http://militarystudent.whhive.com/Content/Media/File/MISA/history_of_appropriations.pdf) and Department of Education, *Impact Aid: Fiscal Year 2019 Budget Request D8 (2018)*, <https://www2.ed.gov/about/overview/budget/budget19/justifications/d-impactaid.pdf>

Forward funding is the budget authority that is available the last quarter of a fiscal year, for the financing of ongoing education programs during the next fiscal year. Other federal education programs such as Title I, Title III, and IDEA is forward funded, which allows for the funding for those programs to be available at the beginning of each fiscal year (Joyce, 2012). Advanced appropriations, however, allows Impact Aid to receive payments one fiscal year or more beyond the fiscal year for which the appropriation act by Congress is passed. Currently, there are seven different categories of federally connected students that Impact Aid acknowledges. The categories cause competition, as the allocation and reimbursement of dollars directly impact local school districts. Because all schools aim to receive the maximum allotment from the same federal budget, the program maximum cost is higher than the actual appropriations (Dunn, 2006). Therefore, the more federally connected students qualifying for the program takes away funding for the military-affiliated students that were designed to receive the funding.

### **The Importance of Impact Aid**

Every year, the U.S. Department of Education allots funding to school districts that apply and qualify for Impact Aid funding under the various requirements. Impact Aid funds are given as four payments: Basic support payments, payments for children with disabilities, facilities maintenance, and construction (U.S. Department of Education, 2014a). Basic support payments provide grants to school districts that are heavily impacted by federal land and non-tax paying students and usually pay for teacher salaries and supplies. Payments for children with disabilities are made on behalf of federally connected students to school districts to meet the mandates under the Individuals with

Disabilities Education Act, which allows for disabled students to receive an appropriate public education. Facilities maintenance payments go towards the 16 school facilities that are owned by the Department of Education, which were built to enable school districts and the Department of Defense to educate federally connected students (U.S. Department of Education, 2014b). The last payment made is for construction, which allows school districts who do not have access to local resources to maintain, renovate, and make emergency repairs to facilities used by federally connected students.

While it was previously unknown how school districts distributed funding received from the Impact Aid program, it was difficult for participants of the program along with researchers to assess the positive or negative impact these funds had on a school district servicing military-connected students. Even with over 1,100 school districts receiving Impact Aid funding, very little information was required on how districts allocated the funding they received. Knowing how the funding was being allocated provided increased efficiency and accountability to other districts.

Impact funds are extremely important to the school districts in providing an appropriate education to its students. With decreased funding, school districts are forced to cut costs in one of the four areas mentioned above. The cuts result in fewer teachers, schools not meeting requirements of the IDEA, buildings owned by the Department of Education potentially being shut down, and buildings that need renovation or modernization will remain old and out of date. All of these potential cuts hurt federally connected children, along with non-federally connected children in heavily impacted school districts.

With an abundance of research concluding that increased appropriations lead to more successful school districts, it is important to have a comprehensive understanding of the current status of public school funding. Although federal involvement in public education has a long history, how local school districts make budgetary spending decisions had not been sufficiently studied. Systematically studying the detailed decision-making process of governing boards and administrations tasked with appropriating public education funding was needed to provide a better understanding of public school funding allocations. Determining what decision-making theories school districts directly or indirectly used in their budgeting process will provide information on allocation practices and understanding of how Impact Aid is used by school districts to educate military-connected students.

By narrowing the scope of school funding sources to Impact Aid, my research provided answers to how decisions were made and how districts use the funding to educate military-connected children. Multiple case studies was the most effective way to obtain such detailed information about funding decisions and have been widely used in studies about school finance (Buddin et al., 2001; Dunn, 2006; Schroeder, 2012; Fuller, 2014). By observing and analyzing five different school districts with drastically different populations, locations, and reliance on Impact Aid, I examined the direct link between decision-making strategies and allocations for military-connected students using Impact Aid funding.

## Summary and Conclusion

As detailed in this chapter, I used budgeting theory to understand how Impact Aid funding decisions are made. Rational decision-making was first to be applied to budgeting and eventually developed into three different aspects of decision-making theory, the others being incremental and garbage can. Several studies conclude garbage can theory is prevailing among budget decision-making in local school districts, with Gibson (2010) proving that it was the most commonly used strategy used in public school budgeting. This study provides data on further strategies that are employed by school districts when awarded Impact Aid funding to service military-connected students

Also in this chapter, I addressed key education topics such as the history of public finance, the involvement of the federal government in education services, the evolution of public school finance, and the allocation practices of current education funding, providing expansive historical context to the topic of Impact Aid. Research has established the importance of adequate funding for education services and the need for more research into how funding decisions are made. Prior to this study, little was known about the allocation practices of districts using Impact Aid funding, and how it related to military-connected children.

This study added to decision-making theory literature by providing a significant contribution to education finances and budgeting by highlighting the budgeting and allocation practices of public school funding. This qualitative research provided new information on allocation practices and understanding of how Impact Aid is used by school districts to educate military-connected students. With more understanding of

decision-making strategies at the local level, more informed decisions on how funding is allocated to meet the needs of military-connected children will be made in regards to the Impact Aid program.

In Chapter 3, I will address how I will study Impact Aid by detailing my methodology for the research study. A multiple case study approach was used to provide a contextual analysis of the five school districts meeting the selection criteria. I will also describe how direct observation, interviews, and documentation analysis yielded data regarding specific uses of Impact Aid, and how those funding decisions are made at the local level.

## Chapter 3: Methodology

### **Introduction**

In this chapter, I review the methodology design of a multiple case study to investigate how military-connected students benefit from Impact Aid federal funding. The purpose of this qualitative study was to analyze the funding practices of individual school districts participating in the Impact Aid program. Prior to this study, no literature existed regarding how individual school districts allocate Impact Aid funding or how military-connected students benefit. The answers to two RQs provided detailed information on allocation practices and understanding of how Impact Aid is used by school districts to educate military-connected students.

To address the RQs, I conducted five case studies. The case study approach provided a contextual analysis for the multiple school districts servicing military installations across the United States. Using multiple case studies allowed for increased compare and contrast strategies that allowed me to predict similar results (Baxter & Jack, 2008, p. 548). By researching in-depth details of strategies used when allocating funding for individual school districts, I was able to provide a more concrete analysis on how military-connected students benefit that frame different models that can be used by school districts in the future.

In this chapter, I describe the target population, research design, study procedure, proposed data analysis, measures to ensure participants' rights, and the setting regarding the methodology of this study.

### **Research Questions**

I used two RQs to research and analyze the funding and budgeting decision-making practices of school districts participating in the Impact Aid program.

RQ1: How does garbage can budgeting impact the funding decisions of military-connected school districts when receiving Impact Aid?

RQ2: What budgeting decisions are made by military-connected school districts when state funding or the Impact Aid program funds are decreased or cut?

### **Research Design**

I used a qualitative research design, developing information through multiple case studies. Case studies have long been a type of qualitative methodology used frequently by social scientists. According to Flick (2007) the case study strategy is the best way to find internal details and generalizations regarding a phenomenon. A multiple case study research approach provided a detailed description of the procedures and analysis of school district allocation practices. According to Patton (2002), the case study approach is a precise way of collecting, organizing, and analyzing data. Well-constructed case studies are holistic and with complex context, requiring the researcher to gather multiple sources of information, including direct observation, interviews, archival records, and documentation. There are two types of case studies, the intrinsic case study, and the collective case study, and I used both in this research.

Stake (1995) suggested an intrinsic study is an approach taken by researchers to understand better the cases being studied. The approach is not used to understand an abstract concept or to create a new theory, only to observe and better understand the

activities of each case. The approach allows the researcher to analyze within and across each setting, concentrating on the similarities and differences between each case (Stake, 1995).

A collective case study is an additional approach taken by researchers to better understand the case being examined. Collective case studies rely on multiple similar cases, and on repetition of procedures in each case (Yin, 2011). By employing a collective case study approach, researchers can better analyze conditions within each setting as well as across multiple settings. Although a collective case study is considered more time consuming, studying the similarities and differences between cases provides reliable and strong results (Baxter & Jack, 2008).

### **Rationale**

To understand the issues of Impact Aid, I provided a contextual analysis for the multiple school districts servicing military installations across the United States. A case study was the best way to research Impact Aid, as unlike other forms of research designs, a case study allows the unique perception of the participant to show using multiple types of data collection (Tellis, 1997) that would otherwise not be known. Stake (1995) described intrinsic studies as when the researcher has interest in the case study. This is evident for this study as I have worked in the education field, in particular with military education, and I have a vested interest in the accurate results of the case study. Understanding Impact Aid and how military-connected students are affected is most achievable with a case study, as it yields more information in the time allotted to the study (Tellis, 1997). Collective case studies are unique, as they can be generalized, and

the findings can be applied to larger populations (Zainal, 2007). The collective case study strategy was important for this study, as the findings can be applied to all types of school districts receiving Impact Aid funding.

Multiple-case sampling adds reliability to the results of the research, as well as allows more understanding of a single-case finding, creating a foundation for inquiry into *how*, *where*, and *why* (Miles, Huberman, & Saldaña, 2014). Because qualitative inquiry usually focuses in depth on multiple samples (Patton, 2002), I believed it to be the best choice for this study.

While other approaches could be used in this study, a multiple case study was most appropriate for uncovering the detailed information needed to answer the RQs. Other approaches were either inappropriate or ill-suited to research decision-making practices within school districts. As quantitative research is used to quantify a problem, it was not appropriate to answer the RQs of this study, as funding strategies and the effect on a specific population were unable to be quantified. Qualitative methodology is used to explore and develop answers to more complex issues and was most suited to answer the RQs of this study. While there are many varieties of qualitative methods, only one was fitting for this study. The first, ethnography, was not applicable to this study as it is rooted in cultural anthropology, which was not the focus of this study. Narrative research focuses on individual stories told by participants, which would not help answer the RQs as this study was not seeking to find stories of individuals to reach a conclusion. A third method, phenomenology, did not fit well as it emphasizes the common experience, and this research did not seek to discover the common experiences but rather answer specific

questions. Grounded theory was too broad of an approach, and it would not yield answers to the specific RQs. The case study approach was best suited for this study as it involved a deep understanding of a topic.

### **Role of the Researcher**

My role in this study was that of observer-as-participant. Originally, the observer-as-participant role was used in studies involving one-visit interviews and required more formal observation from the researcher (Gold, 1958). The role of the observer-as-participant is not to fully participate but rather superficially interact with the subjects being studied (Cassell & Symon, 2004). The research status is known and clearly presented to the participants so as to not produce covert research. During the one-visit interview, I was engaged with the participants as I asked preestablished interview questions, along with appropriate follow up questions. Observation of financial documents and board meeting minutes produced additional information, and I obtained the remaining information at a distance, gathering data without direct involvement with the cases.

I have been working in the education field in various roles for 10 years. I was previously an elementary school teacher from 2007 to 2011 in Clark County School District. From 2011 to 2014, I was a board member and later vice-president of Minot Air Force Base Public Schools School Board. I do not have any supervisory or instructional role in the district that will impact the research. Additionally, no power relationship exists between myself and any of the school districts selected as cases. My experiences in the

education field enhance the knowledge and awareness of Impact Aid, funding practices, and program implementation impacting this study and assisted in working with the cases.

It was also important that I established validity and eliminated any bias in this study based on my own experiences. Maxwell (1992) distinguished five types of validity in qualitative research: descriptive validity, interpretive validity, theoretical validity, generalizability, and evaluative validity. To establish validity and avoid potential bias, I employed triangulation as a validity procedure. By examining the union between multiple sources of information, triangulation followed a systematic process of collecting data from observations, interviews, and documents (Creswell & Miller, 2000).

### **Methodology**

I used a multiple case study to provide a contextual analysis for the multiple school districts servicing military installations across the United States. I developed a multiple case study design, as the multiple cases provided broad yet in-depth findings. The instruments I used for obtaining the information from the case studies were interviews and a review of documents, including archival records and documentation. I used purposeful sampling as part of the participant selection process. In this chapter I address the data analysis plan, as well as ethical procedures to ensure validity and trustworthiness.

### **Participant Selection**

The population for this study was the school districts receiving over one million dollars of Impact Aid funding. As of the most recent data published by the Department of Education, 147 school districts in the United States receive over one million dollars in

Impact Aid funding each fiscal year (U.S. Department of Education, 2014a). Fifty-two of those school districts specifically service military installations. As it was not possible to conduct a case study for all 52 school districts servicing military installations receiving over one million dollars in Impact Aid, purposeful sampling was required.

For the purpose of this research, I used multiple-case sampling/purposeful sampling with comparable case selection. In this particular research project, the common group I compared were school districts using funding provided by Impact Aid. Multiple-case sampling added reliability to the results of the research, as well as allowed for a greater understanding than with a single-case finding. Qualitative inquiry was the most desirable choice for this research as it focuses in depth on multiple samples (see Patton, 2002). Purposeful sampling in a multiple case scenario produces a greater understanding than empirical generalizations (Patton, 2002). This sampling was beneficial to the research as it allows the researcher to decide what cases are most beneficial to the research process and choose those specific cases for the study (Patton, 2002). I employed purposeful sampling in this study by choosing five school districts in which to conduct individual case studies that yielded the most beneficial information regarding the decision-making process of school districts when allocating Impact Aid funding.

I first accessed information from the Center for American Progress, which provided a list of school districts receiving Impact Aid payments of over one millions dollars in the fiscal year 2012 (Lilly, 2012). Of the 147 school districts listed as receiving Impact Aid, I highlighted 52 school districts that only had the military-connected type of federally connected students. Other districts receive Impact Aid funds for students who

are educated or reside on Indian trust or treaty lands, which was outside the scope of the study. I conducted research into district current populations, number of military-connected students, and how much Impact Aid funding was received in each of the 52 school districts to determine which would be most beneficial to this study. I identified 12 school districts as meeting the two established criteria: (a) servicing kindergarten through 12th grade, and (b) receiving over one million dollars in Impact Aid.

To provide a full case study of Impact Aid, I wanted to include districts that were heavily reliant on Impact Aid funds, and those who were not heavily reliant on Impact Aid funds. Of the twelve school districts, the relationship between the population and the number of military-connected students was calculated to determine which school districts relied more on Impact Aid funding. Those districts heavily reliant on Impact Aid also had a very high percentage of military-connected students when compared to the overall population of the district. Districts where Impact Aid only made a slight impact on the overall budget of more than \$1 million dollars had a smaller percentage of military students when compared to the overall population of the district. To obtain a comprehensive understand of the budgeting practices involving Impact Aid, districts with a high percentage of military-connected students were separated from those school districts with a lower percentage of military-connected students.

After obtaining budget and school population reports from the official website of each of the twelve school districts, I concluded that six of the twelve school districts identified as heavily reliant on Impact Aid. The remaining six school districts had a smaller percentage of military connected students and were not heavily reliant on Impact

Aid funds. Evenly distributed with six districts with a high percentage of military-connected students and six districts with a low percentage of military-connected students, the participant selection process required more categories to select the four cases used for this study.

The twelve selected school districts were then divided into another category based on the total population of the school district. Districts were then categorized as ‘large’, ‘medium’, ‘small’, and ‘super small’. Two school districts were categorized as ‘large’ by having between 60,000-70,000 students. Three school districts were categorized as ‘medium’ by having between 20,000-45,000 students. Three school districts were categorized as ‘small’ by having between 7,000-13,000 students. The four remaining school districts were categorized as ‘super small’ by having between 2,500-5,500 students.

Table 3

*School District Classifications*

Size of school district	Number of school districts
Large (60,000-70,000 students)	2
Medium (20,000-45,000 students)	3
Small (7,000-13,000 students)	3
Super Small (2,500-5,500 students)	4

To have a variation of district size and percentage of military-connected students, I chose districts that were heavily impacted by military-connected students, and districts that did not have a high percentage of military-connected students. I also wanted to make sure I had a district from each of the four district size categories. As I have resided in multiple locations, some school districts were chosen due to convenience, enabling me to use my past relationship with the school district to obtain pertinent information on how small school districts that service a small amount of military-connected students appropriate Impact Aid.

I then looked at the remaining school districts and looked for school districts with a high percentage of military-connected students. One school district was chosen because it had the highest percentage of military-connected students of any other school district receiving Impact Aid. It also provided crucial information on how ‘super small’ districts with a high percentage of military-connected students appropriate Impact Aid funds.

Multiple cases are desired in purposeful sampling, but there is currently no agreed upon formula to determine the needed sample size (Small, 2009). However, it is agreed upon that the more cases, the more confidence and validity in the findings; the fewer the cases, the less confidence there is in the findings (Yin, 2011). Noor (2008) suggests that two or more cases should be incorporated within the case study to predict and measure similar results. It is recommended by Miles et al. (2014) to use a minimum of five researched cases to achieve multiple case sampling adequacy. Taking into consideration the recommendations of Noor (2008) and Miles et al. (2014), five richly researched case studies were done to achieve sampling adequacy in this study.

Five richly researched case studies provided more than adequate data to answer the RQs. These five cases met the criteria established during the participation selection process: (a) a school district needs to service grades kindergarten through 12th grade, (b) the school district needs to receive at least one million dollars in Impact Aid funding, (c) the school district has been classified by size, and (d) the school district has been classified by the percentage of military-connected students. The following school districts have been identified as cases for the case study: School District #1, School District #2, School District #3, School District #4, and School District #5.

Through interviews and document review, data triangulation was employed to enhance the reliability of the results. As qualitative research is labor intensive, analyzing a large number of samples can be impractical (Crouch & McKenzie, 2006). By having five richly researched cases, results provided multiple views of how Impact Aid funding is being allocated. The five cases chosen represented different categories and provided multiple views on how Impact Aid is allocated. A large school district with a low percentage of military-connected students may allocate funding differently than a small school district with a high percentage of military-connected students. One or two school districts from each type is all that is needed to gain the information necessary to answer the RQs. This case study had multiple views from a large school district with a low percentage of military-connected students, a super small school district with a high percentage of military-connected children, a small school district with a low percentage of military-connected students, and a medium school district with a high percentage of military-connected students. To ensure data saturation, data triangulation was employed

to enhance the reliability of the results. Triangulation involves multiple methods of data collection and analysis (Denzin, 2012). As Denzin (2012) describes, triangulation is a way in which a researcher explores different levels of perspectives of the same phenomenon, ensuring the depth of the research. I ensured data saturation and data triangulation by using multiple methods of data collection: interviews and document review.

**Participant recruitment procedures.** Recruitment of the participants for the interviews began with a letter to the key officials of each school district, explaining the case study and why the district they service is important to the study. The letter also explained the time commitment for their participation, and the benefits that the information provided will have on the case study and social change. The letter contained contact information in order for the key officials to respond to my request for an interview. I also conducted follow-up phone calls after ten days of the individuals receiving the letter. At that time, the participant chose the date and time of the interview in the timeframe between March 2018 and August 2018 with the interview being held in the workplace of the participant or participant chosen location.

### **Instrumentation**

For this study, interviews and a review of documents were to gain the information sought to answer the RQs. Each of the five case studies included semistructured interviews with key officials in the school district as well as document analysis of meeting minutes and budget documents to address the RQs.

**Interviews.** One key officials in each school district will be interviewed to address the RQs. Key officials included superintendents, chief financial officers, and school board Presidents. Given the topic of Impact Aid and its subsequent funding, I constructed the interview questions that were used in each semistructured interview. These questions were used in each interview conducted and allowed for follow-up questions to gain clarity or retrieve more information during the interview. Each interview was audio recorded for validity purposes. Semistructured interviews have been used in previous research when the researcher has the subject area knowledge but desires an expanded understanding of a specific area. Due to my experiences, I am knowledgeable of the Impact Aid Program, and its implementation at in a limited number of school districts. An increased understanding of the program and how it is implemented at different types of school districts helped me develop the RQs of this case study.

As part of the semistructured interview process, open-ended questions based on the central focus of the study were used to obtain information and allowed for comparison across cases. The type of interview tested in the case study was semistructured interviews. Also referred to as semi standardized interviews, semistructured interviews seek to address predetermined topics (Mills, Durepos, & Wiebe, 2010). The predetermined questions are prepared in advance, but subsequent questions may evolve as the interview develops. As Mills, et. al. (2010) explain, semistructured interviews are used when the goals of the researcher are to compare participant responses while seeking information to fully understand the personal experience of the participant.

**Interview procedures.** The participant chose the date and time of the interview in the timeframe between March 2018 and August 2018 with the interview being held in the workplace of the participant or participant chosen location. Each interview ranged from 30 – 45 minutes for the entire interview process. The interviews were recorded on an audio recorder device, and I informed the participant of the recording device, and received permission before the interview. After the interview, a transcript of the audio was given to the interviewee to ensure the validity of the information provided by the interviewee.

I asked all questions of each of the participants from each case study to enable comparison, but pursued more in-depth subjects as they emerged during the interview. This allowed flexibility to ensure that the unique situation of each case was discovered (DiCicco-Bloom & Crabtree, 2006). The preset questions were open-ended as to avoid leading the informant or limiting their answers to obtain the most accurate and in-depth information. The interview questions were provided to the interviewee prior to the interview for review and clarification on any aspect of the process. By giving the interviewee the questions beforehand, it allowed the interviewee to obtain any documents or figures that were useful to the information sought in the interview. With giving the interviewee the questions prior to the interview, the interview can facilitate as a deliberate conversation to collect data and is more easily replicated across cases to provide comparability (Knox & Burkard, 2009). The interview was audio recorded and a transcript was made after the interview and sent to the interviewee for approval.

If for any reason I was not able to gain access to personal interviews for any of the cases in this study, or if the participant requested, I conducted a telephone interview. If any of the interviewees declined an interview, I returned to purposeful sampling and chose another school district that met the criteria for this study.

**Interview questions.** For the interview process of the data collection, I identified eight questions to ask each interviewee (See Appendix). All questions were open-ended, as to avoid leading questions. This allowed for the participant to elaborate and probe in depth issues specific to the district (McNamara, 2009). The eight interview questions each were designed to answer one of the two RQs of the study. Follow up questions and probing questions were asked during the interview as it was necessary to gain the desired information (Creswell, 2007). After the interviews were conducted, I produced a transcript of the interview. A transcript alone can lose non-verbal aspects and emotions of the interviewee (Thorpe & Holt, 2008) so each interview was also audio recorded to ensure accuracy. With having both the transcript and audio recording, I was able to re-read the transcript and listen to the audio recording; which can produce flashes of insight that can be the most insightful moments in research analysis (Thorpe & Holt, 2008). By conducting interviews and reviewing budget documents and school board minutes for each individual case study, the information provided during the data collection process was sufficient in answering each of the two RQs.

**Document content analysis.** The second component of each case study was a review of documents. For this research, individual school district approved budgets from the past five years were obtained. Review of other documents, such as school board

minutes and additional budget based documents, was also used in the individual case study. School board minutes allowed me to read discussions of board members during the budget approval process and detect and categorize themes that emerged that correspond with the RQs. I looked at the minutes to see the process of allocating Impact Aid funds to military-connected students. Approved budget documents allowed me to observe where the final decisions were made when allocating Impact Aid funding, and I categorized that information for comparison as well. In these documents, I looked to see if the money was allocated specifically for military-connected student use, used in a general fund, or appropriated to certain activities. As these documents are published public documents, the information was not difficult to obtain. These documents were accessed on school district websites, or through the state education agency. After documents were obtained, I looked over the data for comparable themes in decision-making processes and results of budget allocation. Comparable themes I looked for are unique to each interview question and are described in Table 4. Initial codes of anticipated general themes were already established, and any additional or further codes were determined after the data had been collected. Additional coding was needed, as Bernard (2006) stated that data analysis is the search for ideas and patterns in data to help explain why those patterns exist. After the first phase of coding has been done, I arranged the comparable themes and topics on a coding sheet using descriptive coding. As descriptive coding primarily summarizes individual documents or excerpts, creating a coding sheet will allow me ease in comparing across cases. The review of documents yielded crucial information on how

Impact Aid funding was used for military-connected students within individual school districts within the previous five years.

**Document analysis procedures.** Over time, I collected the data produced by document review. Quantifying the amount of time I spent locating and reviewing the various documents is unknown, as some school districts provided the needed information on public platforms and others did not. I reviewed the documents, made notes when necessary, used descriptive coding procedures, and produced a synopsis of each relevant document reviewed.

If any cases were unable for interviews and public budget documents were unable to be located, I returned to the participation selection process and identified an additional school district that met the same criteria as the original five selected cases. I did not anticipate the need for follow-up interviews, and did not employ follow –up interviews in any of the cases.

### **Data Analysis Plan**

The analytic strategy that I used in my data analysis of both interviews and document review was to follow the theoretical propositions developed in my literature review, which focused attention on information needed to answer the RQs. Consistent with Yin's (2011) approach, my goal was to build a general explanation that fit each case, with each case varying in details.

**Interviews.** Computer-assisted qualitative data analysis software, NVivo, was used to code and categorize narrative text collected through the five open-ended interviews recorded two ways: 1) a digital recording device, and 2) through the

application Uber Conference. Audio recordings of the interviews were uploaded into InqScribe, and produced typed manuscripts of the interviews. Once the textual data was entered and reviewed for accuracy, I defined an initial set of codes that aided in the multiple case analyses. Open and descriptive coding was used to break down the data and to distinguish concepts and categories. The coding process was iterative, as it built more complex groups of codes as the analysis developed (Yin, 2011). Initial coding was broken down by interview question, and was coded after I observed and documented general themes. The table below details the initial coding procedures of each interview question:

Table 4

*Interview Questions and Designated Codes*

Interview question	Research question	General theme and code
#1	RQ1	General/Overall Fund (GEN) Schools Servicing Military (MIL) Programs/Special Activities (SPEC) Other (O)
#2	RQ1	Registration Info/Intake Forms (REG) Surveys (SUR) Other (O)
#3	RQ1	School Board (SB) Superintendent (S) Collaborative (C) Other (O)
#4, #5	RQ1	More teachers/Smaller class sizes (T) Programs (P) Supplies (S) Buildings/Maintenance (B) Other (O)
#6, #7	RQ2	Cuts to programs (CUTS) Lay Offs/Decrease Staff (LO) Accrue debt (D) Use savings (S) Other (O)
#8	RQ1	Yes (Y) No (N) Undecided (UD) Other (O)

As NVivo's output will not produce a final analysis, I studied the outputs to determine any emerging patterns such as frequency of codes. The information gathered in interview questions one, two, three, four, five, and eight aided in answering research question number one. Research question number two was answered by interview questions six and seven.

**Document review.** The qualitative content analysis was used when analyzing documents related to the research. Documents that were used were the published budget documents from each case over the span of five years, transcripts from school board minutes pertinent to the budget process, and any other documents related to the district budget. I then created a code sheet to document common patterns indicating aspects of the allocation of Impact Aid funding. My notes consisted of examinations of common themes or patterns and compared to the other documents based on the individual district budget documents to discover an explanation or theme in their decision-making process. Both RQs were partially answered by the approved yearly budget documents.

By drawing information from two sources of data, interview and document review, I provided a full case study of each district. The study included real numbers obtained from published budget documents, providing validity to what information was discovered in the interviews. The interviews provided an aspect of the budget process that can not be developed through a document review. Having both interviews and document review as data sources allowed for a developed descriptive and full case study.

### **Issues of Trustworthiness**

The credibility, validity and confirmability of this study was established through multiple appropriate strategies. As Golafshani (2003) indicates, a study is reliable or dependable when consistent accurate results are achieved over time, relying heavily on future replication of this study. As this research required that I be the research instrument who conducted the interviews and observations, it was important to prove that the research accurately reflected what the RQs intended to answer (Patton, 2002).

Triangulation was used in this study by collecting data from multiple sources as well as using multiple data-collection strategies such as interviews and document analysis.

Triangulation was chosen for this research because it ensures a complete and reliable understanding of the phenomenon (Patton, 2002).

Transferability requires the researcher to provide descriptive information about participants so that they can conduct research that results in a similar conclusion. A multisite design strategy relies on data obtained from different participants or in different settings. In this research, each participant was chosen to represent a part of the target population. Each participant represents a different population size and military-connected student population. This was done to ensure that the results of the research would apply to the entire target population and not just a select portion. With it done this way, it allowed the research findings to apply to any district receiving Impact Aid funding. As this research used stable measuring instruments that are readily available for future researchers, the results will always be similar in replicated studies. Future researchers may choose different cases for future studies, but can apply the same measurement

instruments and follow the same participant selection protocol described in the methodology.

Qualitative studies are intended to help readers understand a confusing situation (Eisner, 1998) and generate understanding to evaluate the quality of the study. Maintaining a record of all analytic decisions allows future researchers to replicate the study more easily, as well as assess the significance and dependability of the research (Rice & Ezzy, 2000). Lincoln and Guba (1985) highlight six categories that must be collected to establish dependability. Raw data, along with the analysis and synthesis of the data is required along with notes, materials, and preliminary information (Lincoln & Guba, 1985). These six categories were richly integrated into the analysis of the research. To ensure dependability and replication, I provided information on the aggregate data, codes, and all details used throughout the analysis process.

Confirmability must be established to reduce the impact of investigator bias (Shenton, 2004). This was done by the researcher admitting to any and all predispositions (Miles et al., 2014), as well as employing the triangulation strategy. As detailed earlier in this chapter, my relationship with the cases did not impact the data collection or analysis process, and the research findings were the results of the information gathered from the informants and document analysis, and not my personal decisions or preferences (Shenton, 2004).

### **Ethical Procedures**

As the researcher gained access to cases, three potential ethical concerns needed to be addressed: exploitation, misrepresentation, and identification of the participant.

Exploitation can occur when a power relationship exists between the researcher and the participant, resulting in an imbalance in the research (Richards & Schwartz, 2002). The researcher did not have a position of power within any of the five school districts chosen for the study or the districts participating in the pilot study, ensuring that no exploitation occurred.

Misrepresentation was also a concern, as qualitative data can often be influenced by theoretical framework (Richards & Schwartz, 2002). As qualitative research is interpretative in nature, the results are published strictly describing the researcher's analysis. As Richards and Schwartz (2002) explain, qualitative participants are more likely to feel that their views have been taken out of context. This concern was minimized by maintaining clear communications regarding expectations and the role of the researcher, along with providing the participant with copies of the interview transcripts for review.

Individuals participating in interviews will require anonymity to provide an environment most conducive for obtaining information. The researcher observed financial documents that were published for public observation, conducted interviews with willing cases and analyzed notes of observation. An informed consent agreement was provided to each interviewee before the interview to ensure that all individuals were willing participants. The population being researched was not considered vulnerable and the information being collected was easily accessible.

All documents and data collected for this study were stored on an external hard drive to include interview transcripts, school board minutes, and public budget

documents. To alleviate any data security issues, the external hard drive was password protected and can only be accessed by me. The hard drive will be secure for five years and after that time will be destroyed.

The treatment of human participants in this study was consistent with the Institutional Review Board (IRB) application approved by the Walden University IRB (approval no. 07-25-17-0341012). As individuals participating in the interviews provided informed consent, no other institutional approval is required. The collection of documents for these cases did not require consent beyond the IRB because they are public documents.

### **Summary**

In this chapter, I described in detail the qualitative methodology of the multiple case study used in this research. The extensive participant selection process was detailed; using purposeful sampling to narrow 52 school districts receiving over one million dollars in Impact Aid funding for servicing military-connected children to five cases that best represented the variations of school districts receiving Impact Aid funding. Initial recruitment and procedures for the semistructured interviews with participants was explained as well as the initial coding procedures that was used in analyzing the data collected through the interview process. Two researcher-developed instruments, interview and document review, were developed to establish sufficiency of data to answer the two RQs. Ethical concerns such as exploitation, misrepresentation, and identification were identified with procedures established to alleviate the ethical concerns within.

For this multiple case study, my role in the data-collection process is observer-as-participant. Through triangulation of data from interviews and document review, I provided information supporting a valid foundation for data analysis. The findings of the studies conducted and details of evidence and analysis will be discussed in Chapter 4.

## Chapter 4: Results

### **Introduction**

The purpose of this qualitative multiple case study was to address the lack of federal guidance on Impact Aid funds, which causes inconsistent spending among recipient school districts, and to determine how military-connected school districts are being serviced with these funds. I examined budgeting and allocation decisions made at the local level in regard to using funding from the Impact Aid program. Prior to this study, very little was known about allocation and decision-making practices involving federal Impact Aid funding. Due to the lack of measurement over dedicated funds, two RQs guided this study:

RQ1: How does garbage can budgeting impact the funding decisions of military-connected school districts when receiving Impact Aid?

RQ2: What budgeting decisions are made by military-connected school districts when state funding or the Impact Aid program funds are decreased or cut?

I investigated the budgeting process of five public school districts receiving Impact Aid to see how school districts used Impact Aid funds. I applied Sielke's (1995) decision-making theory and budget theory as I explored internal decisions of school district leadership through both interviews and document reviews to uncover decision-making practices. Sielke's (1995) garbage can budgeting was the most commonly used approach, making it difficult to determine how dedicated funds supported military-connected children.

In this chapter, I highlight my results, including organizational demographics, data collection, data analysis, and trustworthiness of the collected data. The findings to my two RQs are also presented in this chapter.

### **District Demographics**

The population for this study was school districts receiving over one million dollars of Impact Aid funding. As of the most recent data published by the Department of Education, 147 school districts in the United States receive over one million dollars in Impact Aid funding each fiscal year (U.S. Department of Education, 2014a). Fifty-two of those school districts specifically service military installations. As it is not possible to conduct a case study for all 52 school districts servicing military installations receiving over one million dollars in Impact Aid, I investigated five public school districts across the United States that service military-connected students and receive over one million dollars in Impact Aid funding. The case studies included school districts of different size, location, military-connected percentage, and funding amount. Table 5 shows the breakdown of the five sampled public school districts.

Table 5

*Sampled School Districts Demographics*

	% military-connected students	District size	% of impact aid in total budget	Location
School district #1	65%	2,200	40%	California
School district #2	31%	5,500	6%	California
School district #3	19%	6,600	10%	North Dakota
School district #4	94%	1,042	50%	Texas
School district #5	48%	1,500	35%	Missouri

**Data Collection**

The first step in the data collection process was searching school district websites and locating members in administration or high leadership positions and collecting individual contact information. I then sent a recruitment letter via e-mail to four school districts. If I did not receive a reply within three business days, I placed a phone call to confirm receipt of my e-mail and to discuss participation in the study. Two school districts never responded to the e-mail or follow up phone call. The second said the district did not keep detailed records that would be useful to my study. The third district

declined to participate due to a district recording policy that would have prevented me from recording the conversation. For the school districts that declined to participate, I sent a follow up e-mail thanking them for taking the time to e-mail me back regarding the study. I did not respond to school districts that did not reply to my recruitment letter.

I sampled a second time by finding school districts receiving more than one million dollars in Impact Aid funding and searching the district website for contact information for individuals in administration or key leadership. I sent out five recruitment letters to five different school districts, and all five school districts replied via e-mail agreeing to participate in the study.

For this study, I proposed to interview three key officials from each school district who could have included superintendents, school board presidents, school board members, or chief financial officers. However, upon initial contact with the school districts, only one or two key officials had sufficient knowledge of Impact Aid to feel confident to participate in the study. During March, 2018, through June, 2018, five interviews were conducted with six individuals representing the five sampled school districts. One interview consisted of two officials on the phone at the same time with both individuals answering questions.

Table 6

*Interview Participants*

	Interview period	Position of interviewee	Position of second interviewee
School district #1	March 2018	Superintendent	X
School district #2	March 2018	Superintendent	Assistant superintendent
School district #3	June 2018	School board president	X
School district #4	June 2018	Superintendent	X
School district #5	June 2018	Superintendent	X

After the initial agreement to participate in the study, I sent the participants an e-mail that contained the interview questions along with the consent form. Also included in the e-mail were dates available for a personal interview or telephone interview if they preferred. Date and location were then set with each individual for an interview.

Each participant completed a consent form and returned it to me before the interview began. Each interview was kept confidential, with names of school district and officials kept private. I used an interview script to ask my eight questions relating to the RQs presented in this study. The participant was given the time to answer each questions with the amount of information they wanted to provide, with follow up questions as needed. Participants were given no compensation for their participation in the study. Each of the five interviews was audio recorded two different ways. During the interview, I also took notes for my own record with any follow up questions I may have had. Each interview was transcribed using InqScribe and kept on a personal computer that only I

had access to. After the interview was transcribed, I sent a copy via e-mail to the participant to verify accuracy. No participants questioned the accuracy of the interview transcripts, so no changes were made to the transcripts.

### **Document Review**

In addition to the interviews, I conducted document reviews to investigate the budgeting and decision-making process school districts employ when using Impact Aid funding. During the period of August, 2017, through June, 2018, I collected over 350 budget documents that included annual budget reports and school board minutes from each of the five school districts. The documents I collected were school board minutes from 2013/2014 school year to the 2017/2018 school year, for a total of five years. I also gathered annual budgets from 2013/2014 school year to the 2017/2018 school year. Due to Public Law 109-282, the Federal Funding Accountability and Transparency Act of 2006, full disclosure is required of all organizations or entities receiving federal funding. As the documents were all public record, all board minutes and budget reports were able to be retrieved from the school district website or requested from archives.

The reason for using board minutes in the document review was to study and corroborate decision-making strategies during the budgeting process. The annual budget reports were used to investigate where funding was being budgeted within the school district. Below, Table 7 shows the number of documents collected that included school board meeting minutes and annual budget reports from each school district.

Table 7

*Collected Documents*

	Number of school board minutes documents	Number of annual budget reports
School district #1	71	5
School district #2	80	5
School district #3	88	5
School district #4	58	5
School district #5	30	5

**Data Analysis**

I used NVivo 12 to code, categorize, and organize interview transcripts, annual budget reports from the 2013/2014 school year through the 2017/2018 school year, and school board meeting minutes from the 2013/2014 school year through the 2017/2018 school year, and I identified emerging themes and patterns. The data analysis included a process that began with manual coding of initial coding procedures (Table 4) and a careful examination of data from interview transcripts, school board minutes, and annual budget documents.

**Interview Data Analysis**

After each interview was conducted, I transcribed the data using InqScribe transcription software. After review of the transcription, I applied frequency of references within each transcript and manually coded the passages. Beyond the initial coding procedures, the data themes began to emerge requiring additional coding. This allowed

for the research to be analyzed more easily. I identified word frequency of the transcripts and highlighted meaningful passages throughout the interview transcripts following the additional coding procedures. Four main themes emerged from the data: (a) budgeting practices, (b) sequestration, (c) communication, and (d) information management. I used predefined codes prior to the thematic analysis with only four additional codes being added: count day, Impact Aid sufficiency, late payments, and partial payments. How the two RQs align with the four themes is shown in Figure 1 and Figure 2.

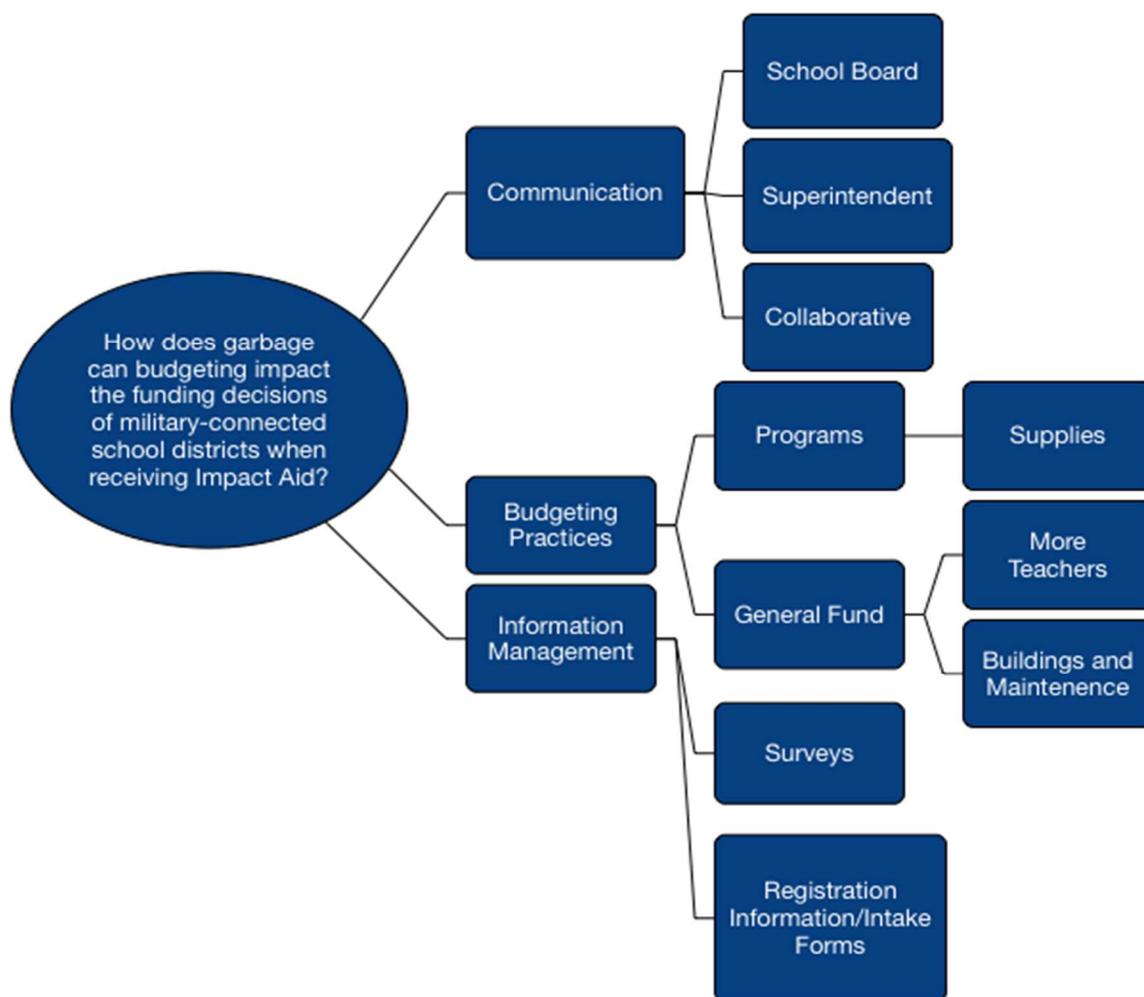


Figure 1. RQ1 and the alignment of themes and codes.

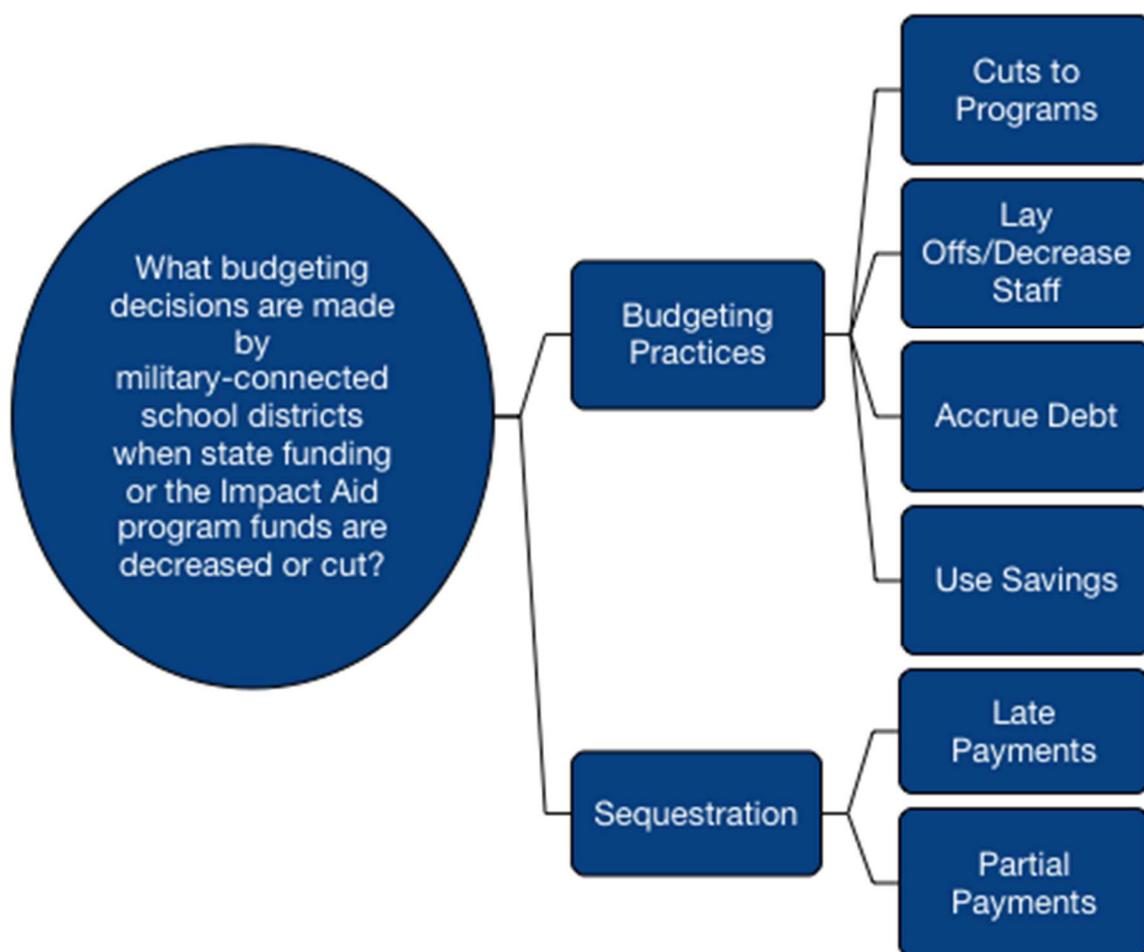


Figure 2. RQ2 and the alignment of themes and codes.

As seen in Figure 1 and Figure 2, the interview questions produced responses that resulted in four major thematic elements used to analyze the decision-making practices of school districts when spending Impact Aid funding. The interview themes included budgeting practices with funding, budget practices with decreased funding, communication, and information management.

### **Document Review Analysis**

I examined the school board minutes as well as the annual budget for all five school districts from the 2013/2014 school year until the 2017/2018 school year, a total of 352 documents. I assessed these documents in order to corroborate the thematic elements produced in the analysis of the data. By drawing information from two sources of data, interview and document review, a full case study of each district can be provided. The real numbers obtained from the published budget documents provide validity to the information that was discovered from the interviews. The interviews provided an aspect of the budget process that can not be developed through a document review. Having both interviews and document review as data sources allowed for a developed descriptive and full case study.

**School board minutes.** I used NVivo software to highlight common themes found in each district's school board meeting minutes. The purpose of this was to discover what type of decision-making was occurring when districts were creating an annual budget using Impact Aid funding. Data analysis of the board meeting minutes produced five common themes: salaries, revenue, expenditures, programs, and services.

**School district annual budget reports.** The data analyzed in the annual budget reports consisted of year, Impact Aid funding, overall revenue, expenses and programs offered. The percentage of Impact Aid funding within the overall operating budget of the district was recorded and analyzed.

The review of school board minutes and annual budget reports as a data source was used in addition with the interviews to establish a well-rounded case for each district. The review of documents allowed for a five-year review of information gathered from interviews. The school board minutes allowed for research into leadership decisions, outcomes, and the budgeting process; while the annual budget reports provided more numerical and allocation data.

### **Evidence of Trustworthiness**

The credibility, validity and confirmability of this study was established through multiple strategies. Triangulation was used in this study with the collection of data from multiple sources, as well as multiple data-collection strategies of interviews and document analysis. This method ensured a complete and reliable understanding of the RQs and proved that the data reflected the intended answer to the RQs (Patton, 2002).

### **Credibility**

I established credibility by implementing multiple sources of collection methods during the data collection process. During the interview process, I asked open ended, semistructured questions allowing the interviewee the opportunity to answer the question with no hindrances. Each interview was audio-recorded two different ways for transcription accuracy and transcribed following each interview. Each transcribed

interview was provided to the interviewee as part of the accuracy verification procedure. After the interviews were transcribed, I hand-coded the documents using NVivo12 to analyze necessary data.

### **Transferability**

Two strategies used in the research process provide for the transferability of the study. First, through a detailed description of the participant selection process any individual from any type of environment has the ability to access the same participant pool used in this study. For this study, each participant was chosen to represent a part of the target population. Each participant represented a different population size and military-connected student population. This ensured that the results of this study apply to the entire target population. Second, this study used stable measuring instruments that are readily available for future researchers in order to replicate the study.

### **Dependability and Confirmability**

To establish dependability in this study, multiple data collection strategies were employed. This study provided detailed information on aggregate data, codes and coding procedure, and detailed notes on the analysis process.

Confirmability was established in this study and reduced the impact of bias by the admittance to any and all predispositions and by use of triangulation (Shenton, 2004; Miles et al., 2014).

## **Results**

Two RQs guided this study: RQ1) How does garbage can budgeting impact the funding decisions of military-connected school districts when receiving Impact Aid?

RQ2) What budgeting decisions are made by military-connected school districts when state funding or the Impact Aid program funds are decreased or cut? Eight interview questions and document analysis provided data from five public school districts receiving Impact Aid funding to provide education services to military-connected students.

During the interview data collection, four themes emerged through the process of data analysis detected by NVivo12: (a) budgeting practices, (b) sequestration, (c) communication, and (d) information management. These thematic elements were used to answer the RQs as shown in Figure 1 and Figure 2.

### **Budgeting Practices**

The first theme reflects the decisions and outcomes of a budgeting process. Participants in this study responded to interview questions that were designed to get an insight into how Impact Aid funding was being used within each district. Each district was consistent in that they all described their first step in the budgeting process as placing Impact Aid into the general or overall funds for their district. Over half of respondents said the money was placed in the general fund to use for programs, buildings, maintenance, supplies, and teacher salaries. Respondents mentioned that Impact Aid funds have allowed districts to purchase STEM curriculum, finance a robotics team, purchase laptops and other technology for classrooms, provide financial relief for students taking the ACT and SAT exams, and employ interventionists and counselors on school sites.

The participants also responded to interview questions that were designed to get an insight into how budget practices change when Impact Aid funding is eliminated or

decreased. Responses to this question varied between making cuts to programs, lay offs or decreasing staff, taking out loans and accrue debt, or use money from savings.

### **Sequestration**

The participants responded to interview questions that were designed to get insight into the Impact Aid program and any issues or adjustments that may have occurred with the finding. Every respondent mentioned sequestration and the difficulty to budget when Impact Aid funding is made in partial payments and payment are often months to years behind. Majority of respondents stated that late payments are expected and that an interim funding account or savings account is required in order to pay teachers and maintenance until the funding is received. Partial payments was also expressed by multiple respondents being one of the main reasons budget decisions change when Impact Aid funding is decreased. One respondent explained that their district only receives 87% of their LOT amount, but was hopeful it would increase to 93% in the future. All school districts in this study currently receive lower than 100% of their LOT amount.

### **Communication**

The third theme to emerge from the interview questions was communication. All respondents used the word collaborative when discussing the budgeting process for their school district. It was consistent throughout all respondents that the district's school board and superintendent were the main collaborators in the budget process. Many respondents mentioned continued communication with teachers when making annual budget decisions. When further questioned about communication with school boards, it

was discovered that some school districts had elected members, while others had appointed members. All respondents mentioned that priority was made to ensure that regardless of military-affiliation of school board members, a military-connected representative was included in all board meetings to allow open communication between the school district and the military-connected community it served.

### **Information Management**

The fourth theme to emerge from the interview questions was information management, specifically in reference to surveys and intake and registration forms. In order to receive Impact Aid, detailed records are required of the type of students the district services (See Table 1). Different weights and categories of students enter into a funding formula to determine the amount of funding a school district receives, making organization of surveys and intake forms crucial for funding. All participating school districts use information obtained during the registration process to determine military-connectedness and Impact Aid eligibility. Some districts take a few steps further and do monthly classification reports of military-connected students and include that in the Impact Aid application.

### **Summary**

The case study research included five school districts across the United States. Interview data were collected from six participants using open-ended interview questions. I conducted a document review using school board minutes and annual budget reports of the five previous years. Interview data were analyzed to discover four central themes that were corroborated by the document review.

The study resulted in answers to the two RQs by revealing specific thematic elements that described the budgeting process of school districts when utilizing Impact Aid funding. The first theme was budgeting practices when allocating Impact Aid funding, as well as operating with little to no funds. The results indicated that all school districts placed the Impact Aid funding in the districts' general or overall fund and used funding for programs and teacher salaries. The second theme indicated was sequestration, suggesting that budgeting practices changed when funds were not available. All participants said late and partial payments made the budgeting process difficult to plan ahead since funding was unknown. The third theme, communication, demonstrated the priority of all participants in having open lines of communication between the school board and the superintendent during the budget process. The final theme, information management, showed the importance of school districts conducting their own data of military-connected students. Surveys, registration forms, and monthly classification reports were used to collect the data.

Chapter 5 includes an interpretation of key findings, discussion of the study, recommendations for future research, and a conclusion.

## Chapter 5: Discussion, Conclusions, and Recommendations

### **Introduction**

The purpose of this study was to understand the budgeting practices of school districts when using funding from the Impact Aid program. The qualitative case study was crucial in examining the decision-making process of school districts during the budgeting process. Using a qualitative methodology to address this gap in the literature was the optimal approach to create a comprehensive understanding of the case through multiple data collection methods. I conducted interviews and reviewed documents to explore decision-making practices of school districts. The interview questions consisted of eight open-ended questions to obtain in-depth responses. The responses were then transcribed and analyzed through coding and categorizing using NVivo12.

I studied the decision-making practices of school districts that receive Impact Aid to provide education services to military-connected students. Representing five purposefully selected school districts across the United States, the six participating key officials were superintendents, financial managers, and school board members. Key findings showed four themes associated with budgetary decision-making: (a) budgeting practices, (b) sequestration, (c) communication, and (d) information management. All four themes identified through the data collection process and analysis provided answers to both RQs posed in the study.

Based on the interview data and document review, each of the themes helps explain the decision-making practices of school districts when receiving Impact Aid funding to provide education services to military-connected students. Consistent with

Sielke's (1995) decision-making theory, the theoretical framework of this research and literature, the findings revealed the budget process is impacted by the garbage can budgeting practice.

### **Interpretation of the Findings**

In Chapter 2, literature showed the history of the Impact Aid program including decision-making theory, public school finance, federal involvement in public education, and school budget and allocation practices. However, no literature existed on how military-connected students were impacted by the federal Impact Aid program. Budget decision-making practices varied from individual school districts. However, the identified four themes remained consistent among all school districts. Information management, budgeting practices, sequestration, and communication all played a role in the funding of education services through the Impact Aid program, which was consistent with Walker's (1931) municipal expenditure theory.

### **Budgeting Practices**

With the foundational framework of Key's (1940) budget theory, Sielke's (1995) developed decision-making theory was the theoretical foundation for this study. I applied it to this qualitative study to analyze decision-making practices for Impact Aid funding and examine the financing choices of school districts. Using the theoretical framework from Sielke (1995), the literature concluded that between rational, incremental, and garbage can budgeting; garbage can budgeting was most commonly used in the public education budgeting process (Rubin, 1977). These findings were apparent in the case of this study. All participating school districts placed funding received from the Impact Aid

program into the general fund or overall fund, which Cohen et al. (1972) referred to as garbage can budgeting. Sielke (1995) found that districts used garbage can budgeting when wealth was uncertain. This study's findings showed that in every school district, uncertain wealth was an issue due to the lack of consistency with Impact Aid funding. All districts mentioned sequestration, payment problems, and timeliness as issues with the program. These issues impacted the budget process as most districts were required to predict Impact Aid payments rather than plan and fund in advance.

This study found that when Impact Aid funding was placed into the school district's general fund, most of the funding went to teacher salaries and general maintenance, which the literature indicated as most important budget items (Ellerson, 2010; Le Floch et al., 2014; Summers & Johnson, 1994). Smaller school districts that heavily rely on Impact Aid expressed this is where Impact Aid funding is a lifeline for the district, and without the funding, the school district would not be able to provide education services. In these cases, Impact Aid funding went to crucial areas in operational costs like buildings, electricity, and teacher salaries.

### **Information Management**

New information that emerged from the data was information management. This topic appeared as a theme that emerged from the data but was not a topic that emerged in the literature review. Each of the participating school districts confirmed the need and practice of information collection within the district. Each district collected and used data to demonstrate the impact military-connected students had on the district, causing a need for funding through the Impact Aid program. All five districts had at least one data

collecting tool to obtain information about the number of military-connected students in the district. All five districts required a military-connectedness status in enrollment papers. Some districts sent home a separate data collection tool later in the school year. One district held monthly meetings to discuss any changes in the number of military-connected students. Those school districts heavily reliant on Impact Aid funding had multiple data collection tools to obtain the most current and accurate information. School districts must be organized and up-to-date on current numbers of the military-connected community they serve. Due to the funding formula, allocation of Impact Aid funds is directly influenced by the data a school district provides in an Impact Aid application. This study found that surveys and registration information was crucial in obtaining the data needed to apply for Impact Aid.

### **Sequestration**

As many studies have established the positive relationship between funding and academic achievement (Papke, 2005, 2008; Aos & Pennucci, 2012), adequate funding and budget cuts were a clear theme in all five school districts in this study. School districts receiving Impact Aid have more problematic funding issues when federal payments are severely cut or not dispersed at all due to government shutdown and sequestration. The Impact Aid program is not forward funded and consistently provides late and partial payments to school districts. The findings in this study showed that all five school districts discussed late payments and partial payments as a negative to the Impact Aid program. While most districts stated the timeliness of payments has recently improved, it was still a topical and reoccurring issue in the budgeting process.

As Rubin (1977) established, when faced with budget cuts, school districts focused on utilizing resources and no longer focused on maximizing district goals. The findings in this study were consistent with Rubin (1977) and showed that when faced with a suddenly decreased overall budget, school districts took action by cutting programs, laying off teachers, accruing debt by taking out loans, and using funds from savings accounts.

### **Communication**

Communication also impacted the decision-making process, as all districts maintained a collaborative budget process. In all participating school districts, the budget process included the superintendent and the school board with input from employees of the school district and the community. School boards are responsible for approving a district budget and expenditure decisions for the district it is serving. School boards and districts can decide which state and federal education programs and subsequent funding to participate in, except those programs mandated by state and federal law. The literature showed that there was a difference in spending patterns among appointed school boards and elected school boards (Kim & Eom, 2015). Of the four elected school boards and the one appointed school board in this study, data in this study did not support that result.

### **Limitations of the Study**

The limitations of the sample size, interview process, and researcher bias are considerations that need to be addressed. The findings are limited given the number of participants in the study. This was deliberate, as smaller sample sizes yield data that can identify patterns and trends (Yin, 2011). The case study was designed to sample five

different school districts receiving over one million dollars in Impact Aid funding.

Multiple case studies are the most effective way to obtain such detailed information about funding decisions and have been widely used in studies about school finance (Buddin et al., 2001; Dunn, 2006; Fuller, 2014; Schroeder, 2012). Miles et al. (2014) suggested using a minimum of five researched cases to achieve multiple case sampling adequacy. Evidence of adequacy was apparent when information from the interviews and document review resulted in four clear themes, and additional coding was not feasible.

As with all types of methodologies, this research is subject to bias when the researcher is the instrument. As the instrument for data collection, I used an interview script with the eight interview questions to provide consistency with each participant. The data produced is reliant on the skill of the interviewer and the clarity of the participant, with answers varying by respondent. Some respondents divulged more information than others, so follow up questions were contingent on the answers provided by the respondent.

The transferability of study outcomes is potentially limiting because the sample size was reduced to school districts receiving over one million dollars in Impact Aid funding. The results may have limited meaning to school districts receiving smaller amounts of Impact Aid funding.

To establish confirmability, I produced documentation to allow others to verify all interviews, coding notes, and document review protocols. I also corroborated the interview data and the document review findings, confirming all information used to

answer the RQs. Allowing other researchers to replicate the study increases the reliability of the study.

### **Recommendations**

The literature review and the findings of this study are meaningful because they shows the decision-making practices of five school districts across the United States during the budget process. However, additional questions exist and require further research to answer. My recommendations for qualitative and quantitative research are as follows. As mentioned, I used specific sampling to gather information from districts of varying size levels and funding amounts. Due to specific sampling and sample size, further research should be conducted replicating this study with additional military-connected school districts varying in size and level of impact.

As previously stated, many school districts service military installations and do not apply for Impact Aid funding. Further research should be conducted with additional military-connected school districts to discover how military-connected students are more directly impacted by Impact Aid funding compared to military-connected students not receiving Impact Aid funding.

Qualitative studies are also needed to research the thoughts and attitudes of parents of military-connected students regarding Impact Aid funding. Research is needed to examine the overall satisfaction of military-connected parents and their opinions of academic achievement.

In this study I was interested in the decision-making process of key officials in school districts working with Impact Aid. A case study approach provided an in-depth

understanding of the RQs through triangulation of data collection. Qualitative case studies provide contextual analysis and allow for increased compare and contrast strategies that permit thematic elements to emerge (Baxter & Jack, 2008). Further research should incorporate a quantitative method to investigate the financial impact of partial payments from the Impact Aid program on military-connected school districts.

### **Implications**

This study on how budget decisions are made using Impact Aid funding addresses the gap in the literature on school district budgeting and decision-making practices. Few studies have been conducted on Impact Aid and even fewer on how Impact Aid impacts military-connected students. Buddin et al. (2001) studied the Impact Aid program and concluded that military-connected students and civilian students had comparable levels of education. Chichura (1989), Guthrie (1996), and Gibson (2010) conducted studies on the financial characteristics of education funding but did not include decision-making practices of boards and administrators. All three studies recommended further research on budget procedures and allocation practices at the local level. This study fills that gap in the literature.

At the federal level, this study provides information to develop base knowledge for the congressional intent of the Impact Aid program. As the legislation lacks definitions and guidelines on how funding should be spent, the results of this study may provide Congress with how funding is currently being used by school districts that have lost property tax revenue due to the presence of military installations. The conclusions of this study were that school districts mainly use Impact Aid funding for operational costs,

which consist of teacher salaries, transportation costs, building maintenance, and technology.

At the local level, this study provides school districts servicing military-connected students residing on federal land an increased understanding of the decision-making process of other school districts also receiving Impact Aid. Evidence-based research could change the decision-making process during the collaborative annual budget process resulting in increased educational support. The research will also provide those school districts with unknown allocation practices a way to self-evaluate their decision-making practices.

At the federal level, the implications for social change include increasing knowledge of policy makers of the effectiveness of allocation methods when funding federal programs. A greater understanding of allocation methods provides an evidence-based strategy of effectiveness for the federal government when making allocation decisions. This study provides comprehensive information to legislators and government officials who want to use the funding to meet the educational needs of military-connected students.

The original contribution of this study was a comprehensive look into how Impact Aid funding was being used by school districts to service military-connected students. This study highlighted the challenges school districts face in education funding and has provided evidence-based data for school districts to continue to operate at an optimized level. Providing information on decision-making during the budgeting process may aid federal and local governments in adequately funding local school districts.

Adequately funded education services have a lasting positive impact on communities, the economy, public policy, and social change. The conclusions of this study will give understanding to local school districts that can use the information to meet the educational needs of students by providing better resources that will promote their abilities and talents, lead to higher achievements, and help them contribute to a more informed future society.

### **Conclusion**

This study was designed to explore the decision-making practices of military-connected school districts when receiving Impact Aid to provide education services to military-connected students. Impact Aid was created to alleviate the burden on local school districts by providing funding to educate military-connected students. Impact Aid is the only federal education program that allocates money directly to the general funds of school districts. Often, legislators make poorly informed decisions due to lack of knowledge and information and are not aware of the impact of their budgeting decisions. The congressional intent of Impact Aid is for school districts to use funding to service military-connected students, but legislation lacks specific wording. No national guidelines exist detailing how Impact Aid funding is to be budgeted at the local level.

In this study, four thematic elements emerged as part of the decision-making process of school districts using Impact Aid funds to operate their school district. School districts use Impact Aid funding to provide teacher salaries, operational costs, programs, and supplies. School districts are also negatively impacted when Impact Aid funding is provided late or in partial payments due to sequestration. The recommendations offered

will provide more in-depth information on how funding from Impact Aid directly influences the services a military-connected student receives. The findings produced in this study and recommendations can be a valuable way to improve federal allocation practices by policy makers, as well as allocation practices at the local level. More informed legislators along with data-rich policies at the federal level will provide higher quality funding and education policies leading to positive social change.

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## Appendix: Interview Questions

## BEGINNING OF INTERVIEW

Good morning/afternoon, and thank you for participating in this study. This interview will take about thirty minutes. As a reminder, you do not have to answer any question that you do not want to, and all information you provide today is out of voluntary participation. Your name and job title within the school district will remain anonymous in this study. You have signed a consent form allowing me to record our interview two different ways: a digital recorder as well as the Uber Conference application on my phone. Do you have any questions before we get started with the interview questions?

1. What process does the district have to monitor the number of military-connected students being serviced by the district? (RQ1)
2. What positive or negative impacts, if any, have the funds from Impact Aid had on the school district? (RQ1)
3. Who or what body of individuals appropriate the funds provided by Impact Aid? (RQ1)
  - a. Does the school board contain elected or appointed positions?
4. How does the budget planning process incorporate Impact Aid funds? (RQ1)
5. How are military-connected students benefitting from Impact Aid? (RQ2)
6. How has the district adjusted during previous government sequestration? (RQ2)
7. How has the district adjusted to the overall decrease in Impact Aid funding over the past 5 years? (RQ2)
8. Do you feel that Impact Aid funding is sufficient and provides for military-connected students? (RQ2)