SUPERINTENDENT PERCEPTIONS OF BOCES AND FACTORS THAT IMPACT DECISIONS TO USE BOCES SERVICES

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Abstract

This quantitative study investigated the perceptions of New York State School (NYS) superintendents about Boards of Cooperative Educational Services (BOCES) and the factors that influenced the decisions of superintendents to use services provided by BOCES in NYS.

This study was undertaken in order to provide insight into an area where there has been limited empirical research. Regionalism in the form of shared services has been an increasingly popular choice for school districts, as they attempt to navigate new educational accountability reform initiatives, while simultaneously reacting to the impact of a severe economic downturn. BOCES have been a long established institution within the public education system in NYS; however, there has been limited research conducted about their operational efficacy in this setting. This study attempted to provide much needed insight into both areas: shared services and shared service agencies. The study surveyed all of the 688 superintendents in NYS who belonged to a BOCES. There were 281 who responded to the survey.

The quantitative data collected from the survey instrument revealed the following findings. More than 70% of superintendents indicated that their perceptions of shared educational service arrangements had changed since the most recent economic recession. The same attributes that make regionalized shared services effective also contribute to effective BOCES services. Superintendents also indicated that they had an overall positive perception of BOCES as entities designed to offer shared educational services. Cost of service was the most negatively viewed service attribute and was the attribute most often impacting decisions to utilize services provided by BOCES. Service and performance attributes were rated most consistently as positive perceptions regarding aspects of BOCES services. The study also

showed that there were differences in ranking for the attributes when viewed as perceptions vs. decision making factors.

The study showed a strong overall positive belief that BOCES are effective in delivering shared services. However, cost and the timely development of new and innovative services were concerns for superintendents.

Keywords: regionalism, BOCES, educational service agency, shared services, perceptions, decisions, superintendent

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Table of Contents

List of Tables

Chapter 1: Introduction

Background

The first global economic downturn of the 21st century had an enormous impact on this nation. Many entities, once healthy and bullish, faced the stark reality of being resource handicapped, structurally unsustainable, and entrenched in 20th century missions that do not adequately address 21st century demands. Public education is at the forefront of this struggle between changing demands and reduced resources. The expanding impact of a global economy and increasingly limited resources collided with new and increasing demands for better educational outcomes. That impact has forced leaders in public education in the United States (US) to rethink how their institutions are organized and how they carry out their missions. As a result, there has been an emergence of federal, state, and local policy initiatives, which have increasingly focused on solutions to address issues caused by the simultaneous convergence of economic hardship and demands for educational reform. Reform initiatives have centered on new accountability requirements for students, teachers, and principals as well as changes to operational structures utilized to deliver school services. The regionalization of school services has been an operational arrangement that has emerged as a method that schools have used in reaction to these accountability reforms, while at the same time adjusting to the impact of an economic downturn.

Research Problem

One of the emerging trends in reaction to these demands has been a form of regionalism directed toward the development of shared services. Shared services, as embodied in educational service agencies (ESAs) for public education, have gained great notoriety as a solution that addresses the balance between centralized control and local choice (Eggers, Snell, Wavra, &

Moore, 2005; Harmon, 2006). Regionalized initiatives, such as ESAs, seek to address these enormous challenges through the utilization of traditional economic concepts based on economies of scale and power in numbers, so long staples of the business world. The development and formation of ESAs as solutions to these challenges have been gaining increasing attention, as ESAs are viewed as vital resources to help public schools address these difficult issues.

This study focused on collaborative service entities in New York State (NYS), known as Boards of Cooperative Educational Services (BOCES). In particular, this research investigated the perceptions of school superintendents about BOCES and the factors that influenced a superintendent's decision to use BOCES services to address educational and economic challenges.

There has been limited empirical research conducted on the topic of ESAs, such as BOCES, as a solution to the challenges caused by attenuating resources and demands for educational reform. ESAs are one of the least understood and studied institutions in elementary and secondary public education (Arfstrom, 2009). In fact, the researcher found minimal evidence of empirical research conducted that focused on perceptions of superintendents about the service quality and leadership attributes of BOCES or ESAs. Some researchers have studied the entrepreneurial attributes of ESA leaders (Arfstrom, 2009), and others have focused on the uniqueness and organizational characteristics of certain ESAs. Some researchers have focused on the organizational potential of ESAs in providing quality educational leadership, but these have only tangentially touched upon the perceptions of those who utilize services provided by ESAs (Harmon, 2006). This study focused on the primary decision maker in the school district, the superintendent/chief executive officer (CEO) of the school, who uses the ESA. The research

sought to understand how the perceptions of the superintendent/CEO affected decisions to use BOCES. Survey questions sought to gain answers about perceptions of service and leadership attributes related to BOCES. The researcher hoped that this project would contribute to the limited research about ESAs.

Recent political and policy initiatives in NYS have tried to address the convergence of fiscal crisis and educational demands. The recent economic recession and new efforts to improve outcomes of students created opportunities for re-alignment of the structures in place for the delivery of public education by school leaders. These efforts focus on a restructuring of the operational and delivery infrastructure, in which the focus has been on more effective and efficient delivery of a 21st century public education system. Options for restructuring the delivery infrastructure of public education range from the merger and consolidation of two or more school districts to the consolidation of back office operations. The role of BOCES in NYS has generated many discussions as a possible source for greater efficiency and effectiveness for regional educational opportunities for school districts (Arfstrom, 2009; Harmon, 2006; New York State [NYS], Governor's Office, New NY Education Reform Commission, 2012; Ward, 2007).

There has been emerging public awareness and debate regarding ESAs as cost effective alternatives for regionalization of school services for public school districts (Ward, 2007). Despite the continuing debate about the effectiveness of BOCES, there has been minimal empirical research conducted about school district perceptions of BOCES. Further, there has been no empirical research focused specifically on the perceptions of school superintendents, their resulting decisions to use services provided by BOCES, and the relationship between these perceptions and the subsequent use of BOCES services for their school districts. Specifically,

this research was designed to investigate the perceptions of superintendents about BOCES and the factors that impacted decisions to use BOCES.

Purpose Statement

BOCES were formed in NYS in 1948 to provide opportunities for rural school districts that the school districts themselves could not provide because of their small size and rural nature (New York State Education Department [NYSED], 1996). The depth and breadth of BOCES shared services have grown considerably since their inception. Today's education environment reflects a sharpened focus on improvement of student outcomes, while reducing consumption of resources. BOCES, because of their position in the NYS public education system, are well positioned to serve public schools as regional shared service providers.

The purpose of this quantitative study was to investigate the specific factors that influenced the decisions of superintendents in NYS to use services provided by BOCES in NYS. This study surveyed school superintendents in NYS that belonged to a BOCES and sought to answer the following questions.

Research Questions

1. What perceptions do superintendents hold about the service and leadership attributes associated with the programs and services offered by BOCES?
2. What factors influence a superintendent's decision to use or not to use BOCES services?
3. Is there a relationship between a superintendent's decision to use BOCES services and the view of BOCES as a strategic partner in helping solve the district's operational and educational challenges?

4. Is there a relationship between certain school demographic characteristics and a superintendent's perception of BOCES?

Significance of the Study

School leaders are under intense pressure to enhance the efficiency and effectiveness of public schools. In response to these pressures, school leaders have turned to regionalized collaborations as a strategic approach to better align resources and operational structures to achieve greater efficiency and effectiveness. Regionalized collaborations have emerged in numerous forms and have become important strategic options for schools and other government leaders.

This quantitative research study was designed to investigate and evaluate factors that impact superintendents' decisions to use services provided by BOCES. The study intended to provide information for public leaders, particularly leadership of public educational institutions who are faced with an enormity of challenges in today's 21st century school environment.

The footprint of BOCES in NYS is extensive. There are currently 37 BOCES in NYS, which include 688 component school districts of those BOCES. The big five school districts (New York City, Buffalo, Yonkers, Syracuse, and Rochester), Albany City School District, Hoosic Falls School District, Mamaroneck School District, and Newburgh City School District are not part of a BOCES. This study targeted the perceptions of superintendents because of their position as CEO. The data collected, presented, and analyzed in this study provide insight for leaders into the operations of one of the largest shared service institutions in NYS.

Limitations and Delimitations

Limitations. This research project was designed to capture the broadest possible scope of perceptions and factors that influenced a superintendent's decision to use BOCES services

across NYS. The population studied in this research included the 688 superintendents of school districts in NYS that were members of a BOCES.

The study was limited by its quantitative design and the design of the survey instrument. A qualitative design may have resulted in different results and, therefore, different conclusions. Limitations may also be reflected in the design of the survey questions in two ways. First, the questions were researcher designed, as a result may reflect researcher bias. Second, there were multiple survey questions that required the respondent to indicate a level of importance or a degree of frequency to attributes related to service and performance. The service attributes, although carefully worded, may have been subject to individual respondents interpretation, thus resulting in inconsistent or unintended results.

Delimitations. Although the school superintendent is the CEO and the final decision maker for the day-to-day operations of a school district, many other school district personnel work and interact with BOCES on a regular basis. These individuals, such as school district board members, school business officials, and principals, were not included in this study. Therefore, the data presented in this study were limited to those collected from school district superintendents.

This study also focused solely on ESAs in NYS. It did not focus on other similar entities in other states. Although ESAs exist in many other states, their individual legal structure and operational circumstances may impact the perceptions of chief school officers in those states, and, therefore, the data collected in this study may not be generalizable to all ESAs.

In addition, the central focus of this research was on BOCES and the CEO of the school district. It did not focus on superintendents' perceptions about other forms of shared services or decisions about their use.

A superintendent's decision to use BOCES services is based on many factors, such as cost, effectiveness, quality, fit, ease of use, local politics, and resources, all of which are reflected in the leadership actions of the BOCES. This research project was not an attempt to define or measure the degree of these criteria but was intended to evaluate the extent that these qualities affected superintendents' perceptions and resultant decisions to use BOCES as a service provider and partner in meeting school district educational and operational goals. Additionally, this study did not attempt to define a measurement method for cost effectiveness, quality, or ease of use of BOCES services.

Definition of Terms

The list of definitions below represents common terms used throughout this research project. These definitions are presented in the context of this study and are intended to provide clarification to the reader.

Board of Cooperative Educational Services (BOCES): The name given to educational service agencies located in NYS. They were formed in 1948 to provide shared services to public schools (NYSED, 1996). Currently there are 37 BOCES in NYS and 688 public districts that belong to a BOCES.

Component school district: a public school district that is a member of a BOCES in NYS. Currently there are 688 component school districts that are members of a BOCES.

Cooperative service (coser): Shared service programs in NYS BOCES are formally called *cooperative services*, but they are commonly referred to as *cosers* (NYSED, 2002).

District superintendent: The CEO of a BOCES. District superintendents in NYS serve a dual role. They are employees of their BOCES as well employees of the state education department. In contrast, the CEO of a public school district is sometimes referred to as

the superintendent of the district, meaning that the person is the superintendent of the school district, not the BOCES.

Educational service agency (ESAs): ESAs are regional public multiservice agencies, organized and authorized by state statute to develop, manage, and provide services or programs to local educational agencies (NCLB Act of 2001). There are 560 ESAs in 40 states, each serving an average of 26 school districts (Arfstrom, 2009).

Regionalism: In the context of public policy, regionalization refers to the growing interest among local governments and nongovernmental organizations to join forces to tackle problems that defy solutions within established political boundaries (Desfosses, 1994). Regionalism is an umbrella concept, which describes the interaction of various levels or segments of government related to efforts to share resources and collaborate together in order to enhance effectiveness and efficiency (Boyne, 1996; Briffault, 2000; Cigler, 1994; Frug, 2000).

Shared services: A form of regionalism where two or more entities collaborate together to perform a service or function that each had done on its own previously. Examples of shared services are consortia activities, inter municipal agreements, and services provided by BOCES.

Chapter 2: Literature Review

The purpose of this chapter is to present analyses of relevant research regarding the regionalization of school services as a reaction to poor national and state economies and simultaneous demands for greater educational performance emanating from business and community stakeholders. One of the reactions from public schools to the loss of resources and demands for greater academic performance has been an increasing interest in the use of shared services (Harmon, Keane, Leddick, Stephens, & Talbott, 2012). This research project focused specifically on organizations intentionally designed to deliver shared services within the public education system in NYS.

This chapter is organized into five sections. The chapter begins with the concept of regionalism, its impact as a factor in public policy decision making, and its subsequent impact upon regionalism in public education. This section presents regionalism in the context of political theory and public policy, with the purpose of establishing the context for a presentation about various forms of regionalism.

The economic, political, and educational conditions prevalent in NYS that have formed the basis for recent governmental and educational reform initiatives are presented second.

The third section describes various forms and types of regionalism and is broken down into the following sub components: common collaborative organizational structures, ESAs, regionalism, and school district organization in NYS and BOCES. The fourth section presents information about participation in shared service collaboratives, which lays out a review of research regarding organizational characteristics present in successful regional collaboratives and shared services. This section presents a review of literature, which describes traits, structures, and perceptions embodied within successful collaborative initiatives and forms.

The final section in this chapter focuses on the impact of perceptions or beliefs on decisions related to the use of shared services. It concludes with a presentation of research about the phenomena of consumer behavior, which is affected by perceptions regarding value, choice, and participation. It is presented to help provide an understanding regarding the possible association between perceptions of NYS school superintendents in relation to their decisions to utilize services provided by BOCES.

Regionalism and Public Policy

In the context of public policy, regionalization refers to the growing interest among local governments and nongovernmental organizations to join forces to tackle problems that defy solutions within established political boundaries (Desfosses, 1994). Regionalism is an umbrella concept, which describes the interaction of various levels or segments of government related to the expansion and contraction of their spheres of influence, resulting in both economic and political impact (Boyne, 1996; Briffault, 2000; Cigler, 1994; Frug, 2000). Regionalization is a response to public policy in combination with organizational responses to a changing economic environment.

Regionalism can take numerous forms and can have different meanings depending upon the context in which it is used. A continuum of regionalism may be described based on its organizational structure. The continuum starts with centralization at one end and ends with decentralization at the other end. Shared services or inter-organizational cooperation resides in the center (Farnsworth-Sipes, 2010). Terms frequently associated with the centralization end of the spectrum include consolidation and merger. On the other end of the spectrum is decentralization. Additional related terms include fragmentation and localism. In the middle are conceptual terms, such as functional consolidation, shared services, and inter-organizational

cooperation (Boyne, 1996; Briffault, 2000; Cigler, 1994; Eggers et al., 2005; Frug, 2000; Hager & Curry, 2009). Regionalism is affected by and involves competition, political structure, finance, autonomy, and distribution of resources. It is a postulate of political theory and is simultaneously used as an umbrella term to describe a broader set of public policy outcomes, which are reflected in organizational structures.

Centralization, consolidation, and merger refer to the movement from smaller groupings, entities, or resource centers to larger groupings or entities and the pooling of resources (Frug, 2000). Decentralization, fragmentation, and localism refer to the concept of unpacking larger centralized entities, services, or functions into smaller, more regionalized or local geographic areas (Frug, 2000). Regionalization is a reflection of restructuring and reform efforts on the part of government entities. In the context of NYS government regionalization initiatives, it is recognition by state government for the need to reform government structures for purposes of greater efficiency and effectiveness. It is a response to competition for scarce resources and a public policy reaction to current or emergent conditions and is frequently subject to the political process (Briffault, 2000).

Regionalism is often a response to the need for greater efficiency, effectiveness, and more equitable distribution of resources for governmental entities (Boyne, 1996). Regionalism is affected and impacted by competition for resources, power, and the political processes of government (Frug, 2000).

Competition for power and resources occurs at all levels of government, including states, cities, counties, towns, villages, and public schools (Boyne, 1996). Competition among and within government entities is a significant factor that influences a government's ability to operate effectively (Boyne, 1996). According to Boyne (1996), competition among government entities

is influenced by their organizational structure, the degree of operational autonomy that each possesses, and the overall fiscal environment. Competition among governmental units occurs in several ways: geographic competition, political competition, inter-government competition, and intra-government competition (Boyne, 1996). Examples of competition are political competition, which refers to competition between political parties, such as Democrat vs. Republican; inter-government competition, which refers to the competition related to struggles between units of government, such as city vs. county; and intra-government competition, which refers to competition within sub-units of a government unit.

An additional example of competition occurs in NYS's distribution of state aid to schools, whereby support for schools is impacted by *regional shares* or politically determined distribution amounts instead of by student need (Statewide School Finance Consortium, 2012). According to the Statewide School Finance Consortium (2012), a political shift in power in the late 1980s resulted in the application of school aid distribution processes according to school enrollment within political regions, thus creating the basis for two decades of unequal and inequitable school aid funding. The political shift in power resulted in strengthening the influence of downstate politicians in Long Island and wealthy counties north of New York City, where there were proportionately larger populations of students, in comparison to upstate NY. The concept of the distribution of school aid by regional shares is the result of the political struggle for power and allocation of resources (Statewide School Finance Consortium, 2012).

The organizational structures of entities are an important component of regionalism because the structure of an organization is a reflection of its purpose and how it delivers services. Structure, in this context, refers to the degree that governments or a unit of government is consolidated or fragmented. Consolidation refers to services, which are provided by a single unit

serving a large area. Fragmentation, on the other hand, refers to the provision of services by levels, predicated on the services to be delivered (Boyne, 1996). Proponents of choice espouse a fragmented approach because they believe that it allows for healthy competition for a finite local tax base and that it leads to more flexibility in provision of service based on needs, and hence greater participation by citizens, thus enhancing the democratic process (Boyne, 1996). Autonomy refers to a governmental unit's ability to act without sanctions or rules being placed upon it from higher levels of government (Boyne, 1996). Proponents of choice argue that autonomy allows local governments to create services that represent the needs and desires of their constituent population (Boyne, 1996). Last, monetary control significantly influences the deployment of regionalized activities. Boyne (1996) illustrates this point by stating that the greater the degree of centralized funding, the less desire there is for localized competition. The greater the centralized fiscal control, the less incentive there is among local units to work collaboratively to solve common local problems because they control less of their ability to form their own rules of engagement (Boyne, 1996).

Key points from the literature regarding the advantages and disadvantages of regionalism can be summarized as follows. These characterizations are directly applicable to the struggles of public school districts in NYS. The advantages and disadvantages of regionalization referenced from the perspective of centralization and decentralization are summarized in the following eight points: (a) people tend to see centralization as a loss of local control and local identity (Briffault, 2000); (b) resistance to centralization stems from the self-interest of local officials and other interest groups who benefit from strong local control (Briffault, 2000); (c) centralized power is viewed by many as a means of government coercion (Frug, 2000); (d) proponents of localism believe that decentralization of power enhances efficiency, democracy, and self-determination

(Briffault, 2000); (e) localism also acts as a catalyst in participative democracy by making citizen participation more accessible to a greater number of people (Briffault, 2000); (f) centralization allows for the broader re-allocation and targeted programming for disadvantage populations, and funding for these programs can occur across a broader range of fiscal resources (Frug, 2000); (g) centralized government services are more productive in the reduction of racial and income segregation, in comparison to a government structured with local control, because public policies can be designed to addresses a broader population base (Lowery, 2000); and (h) localism, reflected in fragmentation of government entities, leads to choices that result in greater segregation because individuals with greater resource capacity tend to make choices to live within areas that have a common homogenous population, and these enclaves tend to consolidate resources and power, resulting in greater power (Lowery, 2000).

Regionalization of governmental services has advantages and disadvantages, depending upon the perspective and context from which control and power are viewed. Briffault (2000), Frug (2000), and Lowery (2000) present arguments in support of and against regionalization of governmental services based on activities related to power and control. The pro and con positions represented about regionalism appear, from the literature, to have no single best solution to the struggle over power and control.

Frug (2000) suggests that centralization-decentralization proponents need to address core issues related to control, power, and resources in a way that will enhance the benefits of centralization without detracting from the benefits of local control. Eggers et al. (2005) contend that shared services are the answer to the struggle for identity and control on the one hand and greater efficiencies on the other. Lowery (2000) contends that a more effective inter-governmental process would address needs related to boundary issues between governments.

Boundaries are important because they define the breadth of inclusion and exclusion; they facilitate sorting of programmatic priorities, and they define political rules for execution (Lowery, 2000). Briffault (2000) contends that political leaders need to present solutions that call for new legal and political structures that temper the struggle between local control and greater efficiency.

Given the political dynamic imbedded in the centralization and decentralization aspect of regionalism, in which political struggles regarding autonomy, scarce resources, and identity are the norm, it may suggest why functional consolidation in the form of shared services may be a less a politically provocative solution for greater efficiencies and effectiveness among government units, particularly in the case of public school districts (Eggers et al., 2005). Sharing of services has rapidly gained popularity because of its proven ability to reduce costs and reduce political barriers to cooperation (Eggers et al., 2005). A study co-conducted by Deloitte Research and the Reason Foundation concluded the following about shared services:

> Shared services allows for the best of both worlds, creating lean, flat organizations that share processes and provide consistent services. Shared services create economies of scale, consistency of process, and results that come with centralized models. They also allow districts to maintain the benefits of decentralized control over the most mission-critical educational decisions related to the school. Shared services provide the best of big and small, centralized and decentralized (Eggers et al., 2005, p. 15).

Economic, Political, and Educational Conditions as a Context for the Formation of Regionalized Services

This section focuses on the conditions present in NYS and includes a theoretical explanation of the establishment of government cooperation based on political control and local

capacity. The conditions which have enhanced the likelihood for the formation of regionalized shared services are described from three perspectives: NYS political, economic, and educational environment; specific situational conditions that lead to organizational cooperation; and the likelihood of organizational cooperation based on control and capacity.

NYS has consistently faced economic challenges during recessionary economic activity from 2007-2009, and this situation continues to plague government operations at all levels in NYS (*Taxes*, 2013). In 2008, newly elected Governor Cuomo faced an immediate budget shortfall of $10 billion and an estimated four-year budget deficit of $63 billion (NYS, Governor's Office, Spending and Government Efficiency [SAGE] Commission, 2013).

Two conditions appear to have exacerbated the poor economic state of affairs described above and continue to support the current trend of government restructuring, particularly with shared services. The first condition was the cumulative impact of a state tax policy in which every major tax since 1995 was cut, amounting to a total of nearly $167 billion by 2008-2009 (*Taxes*, 2013). Frank Mauro of the NYS Fiscal Policy Institute testified that this tax policy created a situation where state government was fiscally less prepared for the effects of the recession (*Taxes*, 2013).

The second condition, which had a much greater impact on the economic situation, was the condition of a state government that had not been reorganized since 1927 (NYS, Governor's Office, SAGE Commission, 2013). The outdated condition of NYS governmental structures and processes resulted in an inability of the state to effectively and efficiently handle the impact of the recessionary conditions and thus negatively exacerbated overall conditions within the state (*Taxes*, 2013). In response to a need for substantial governmental reform, Governor Cuomo launched a reform initiative aimed at all levels of NYS government, including public education.

The multitude of reform initiatives, coupled with an anemic economic recovery, spurred renewed activities in the delivery of municipal services (*Taxes*, 2013). Governor Cuomo's reform agenda was organized around four commissions or teams, each designed to focus on certain aspects of state government, with three major goals in mind: reorganizing state government through consolidation and *right-sizing*, reducing costs and improving service through modernized technology initiatives, and building a culture of performance and accountability (NYS, Governor's Office, SAGE Commission, 2013). Specific actions and recommendations were made to the Governor by the four commissions and were part of an active reform platform put forth by the Governor. The four commissions and a brief description of their areas of focus are outlined below:

- *SAGE Commission (Spending and Government Efficiency Commission):* The focus of this commission was on the reorganization of government departments and agencies that were under the control of the executive branch (NYS, Governor's Office, SAGE Commission, 2013).
- *Medicaid Redesign Team:* The purpose of this initiative was to make system wide changes to Medicaid in NYS for greater efficiencies and cost reductions (NYS, Governor's Office, SAGE Commission, 2013).
- *Governors Mandate Relief Council*: This council was designed to investigate savings opportunities and efficiencies that local governments could implement and to advance efforts to reduce regulatory burdens that inhibit greater efficiencies among local governments (NYS, Governor's Office, SAGE Commission, 2013).
- *New NY Education Reform Commission*: This commission was designed to comprehensively evaluate the current status of the NYS public education system and

> to make recommendations for greater efficiency and effectiveness for NYS schools. The recommendations put forth by this committee to the governor, and subsequently proposed by Governor Cuomo in the state budget, were intended to drive education reform in NYS for the foreseeable future (NYS, Governor's Office, New NY Education Reform Commission, 2012).

The preceding paragraphs described the general economic and political landscape present in NYS that has led to the beginning of governmental reform and which has included a greater emphasis on regionalism. The next component of this section describes the financial, demographic, and educational conditions present in NYS public education, one of the largest segments of state operations.

The public education system in NYS is characterized by enormous variation in geography, enrollment, wealth, demographic composition, and student need, which creates significant operating and educational challenges for the state and its school system (NYS, Governor's Office, New NY Education Reform Commission, 2012; New York State Council of School Superintendents [NYSCOSS], 2012).

Enrollment variations in NYS school districts are representative of its vast and varied geography, which reflect massive population centers like New York City and extremely rural areas like Long Lake with a population of 547 and a district enrollment of 65 (NYSED, 2012). NYS has 2.7 million students in grades k-12, of which just over 38%, or one million pupils, reside in New York City (NYS, Governor's Office, New NY Education Reform Commission, 2012). An additional 4% are enrolled in the Big Four City districts of Buffalo, Rochester, Syracuse, and Yonkers, totaling another 116,000. There are also approximately 200,000 students in Pre-k programs in the state. Overall enrollment has declined across the state during the last

decade, with 83% or 558 districts experiencing a decline. Fifty-three percent of those districts experienced an enrollment decline of at least 10% during that same period (NYS, Governor's Office, New NY Education Reform Commission, 2012).

According to the Education Reform Commission (2012), there are 676 public school districts, 241 of which have enrollments of less than 1000 students. This represents 35% of the total school districts in NYS. In addition, there are 37 BOCES in the state and 201 charter schools (NYS, Governor's Office, New NY Education Reform Commission, 2012). NYS has vast disparities in the wealth of its citizens and schools, which creates difficulty for state government to distribute resources equitably in support of public education. NYS spends $58 billion annually on education and more per pupil than any other state at $18,618 (NYS, Governor's Office, New NY Education Reform Commission, 2012). However, there is tremendous disparity among districts due to differences in local district ability to fund education and concentrations of high need students (NYS, Governor's Office, New NY Education Reform Commission, 2012).

NYS primarily measures the fiscal capacity of its public schools in two ways, by combined wealth ratio (CWR) and by need-to-resource capacity (NRC). The CWR is a measure of a school district's property wealth and income wealth measured against the state average. The state average is 1.0. There were 454 school districts identified in the SAGE Commission Report with a CWR under the state average of 1.0, representing almost 1.1 million students and 67% of students outside of New York City (NYS, Governor's Office, SAGE Commission, 2013).

The NRC is the second measurement of fiscal capacity, and it focuses on the ability of a local school district to fund its commitment based on student need. Districts are classified into three groupings: high need, average need, and low need. The high need category is further sub-

divided into large city, urban/suburban, and rural. There are 207 high need school districts, representing 56% of the total student population in NYS that reside in high need districts according to the New NY Education Reform Commission Report (NYS, Governor's Office, New NY Education Reform Commission, 2012).

The operational and performance challenges for NYS public school districts have been exacerbated by the significant loss in resources since the 2007 recession (NYSCOSS, 2012). The following points are made in order to illuminate the difficult circumstances that schools in NYS face.

A study conducted by the New York State Council of School Superintendents (NYSCOSS) (2012) surveyed NYS superintendents in regard to fiscal and operational concerns facing their districts. Summary highlights of the survey are illustrated next and amplify the reasons school districts are concerned about their future. According to NYSCOSS (2012):

- Fifty-two percent of schools indicated that their financial condition had worsened from 2011. Ninety-two percent of district revenues were subject to caps.
- Eighty-three percent were concerned or very concerned by the heavy use of reserves to fund recurring costs.
- Forty-one percent anticipated that their districts would reach financial insolvency within 4 years, and 71% thought they would reach educational insolvency within the same period, meaning that they would not be able to fund all of the federal and state mandates required of them.
- Districts reduced staff by nearly 10% since the 2010-2011 school year, resulting in 59% of the districts increasing class size. Forty percent of districts said that their districts' budgets had a negative impact on core instruction and student supports.

- Sixty-seven percent of districts indicated that the property tax cap forced them to adopt a budget below what they would have otherwise adopted.
- The three most significant concerns were the tax levy cap, the lack of state aid, and the lack of mandate relief.

The NYS Office of the State Comptroller (1994) outlined the following conditions, which often precede the formation of cooperative service agreements between governmental entities. In preparation for evaluation of a shared agreement, entities should conduct a feasibility study or a needs assessment to determine if an inter-municipal cooperative arrangement would improve efficiency and/or effectiveness. An inter-municipal arrangement should cover the following basic operational items: a method or formula for equitably allocating resources, a mechanism for compensating employees and personnel, some provision for equipment and/or facilities, and an understanding of how liabilities will be handled (NYS, Office of the State Comptroller, 1994).

Cigler (as cited in Morse, 2005) outlines several preconditions that were present in three cases of inter-governmental collaboratives that she observed. Characteristics present in the three cases studied were:

- Each had a disaster with which it had to respond.
- There was a political atmosphere conducive to inter-organizational cooperation.
- Supportive capacity building and incentives were provided by external sources.
- There was early and continued support by elected officials.
- Visible advantages of cooperation existed for participating governments.
- A policy entrepreneur exhibited leadership.
- There was an early focus on visible, effective strategies.
- There was an emphasis on collaborative skills building. (Cigler as cited in Morse,

2005)

Jansen (1994) presents information on the preconditioned establishment of successful government collaboratives from the perspective of political control, which she refers to as centrality and local capacity. Jansen provides a theoretical framework for analyzing relationships between different levels of government from these two perspectives and says that they are predictive factors associated with successful shared service arrangements. She defines the tension between levels of centrality of government and local government capacity as predictors for types of inter-governmental relationships. Centrality is defined as "having physical and/or organizational linkages with the economic and political centers of decision-making, or the economic or political 'core'" (Jansen, 1994, p. 60). Local capacity is defined as "having the institutions necessary to deal with information" (Jansen, 1994, p. 60).

Jansen (1994) suggests that when both centrality and local capacity are present or when both are absent, relationships are stable. When there is a disparity between the levels of centrality and local capacity, a region will seek to equalize the forces (Jansen, 1994). In other words, when resource capacity is in balance with the level of decision making authority, the governmental environment is likely to be stable. When this equilibrium does not exist, then government will react to stabilize the equilibrium.

This section presented the context and conditional environment, which explored circumstances and factors that might relate to the formation of regionalized shared services. Focus was directed on the conditions present in NYS, which may explain the increasing usage of shared services. Preconditions for shared service arrangements were described from three perspectives: NYS political, economic, and educational environment; specific situational conditions that lead to organizational cooperation; and the likelihood of organizational

cooperation based on control and capacity.

Types and Forms of Regionalism

This section presents an overview of the changing economic and operational environment with respect to the regionalization of services by government. An overview of the types and levels collaborative regionalized initiatives is also explained in this section.

Government reform and shared service collaboratives are on the rise because legal and political structures cannot adequately address urban social issues, concentrations of poverty, and new educational demands exacerbated by 21st century economic pressures (Briffault, 2000). Local government, as it is structured currently, cannot keep up with the demands of a 21st century environment (Briffault, 2000). Warner and Hebdon (2001) introduce two concepts that are emerging in the area of regionalism: governmental entrepreneurialism and reverse privatization. Entrepreneurialism refers to government creativity in fulfilling certain operations or functions in ways that government has traditionally not done. Privatization refers to transferring components of operations or services previously done by the government entity to the private sector, often procured through a competitive letting process.

New formations of government operations are emerging due the necessity for government institutions to be more effective and efficient. Local government restructuring should no longer be viewed as a simple delineation between private or public sector provision. Government reform efforts utilize varying combinations of public and private business relationships to deliver services more effectively and efficiently. A 1997 survey of chief elected township and county officials in NYS showed that local governments use both private and public sector mechanisms to structure the market, create competition, and attain economies of scale (NYS, Office of the State Comptroller, Division of Local Government and School

Accountability, 2010).

According to Warner and Hebdon (2001), local government restructuring is guided primarily by practical concerns about information, monitoring, and service quality. They state that restructuring should be viewed as a complex, pragmatic process where governments combine public and private provision with an active role as service provider and market player (Warner & Hebdon, 2001). Further, the formation of new operating arrangements is often the result of creative dedication by leaders striving to fulfill the mission of the organization they work for (Hager & Curry, 2009). Restructuring service delivery also requires capacity to take risks and is more common among experienced local officials in larger, higher income communities (Warner & Hebdon, 2001).

Common collaborative organizational structures. The AIM Alliance, in conjunction with Arizona State Universities' Lodestar Center, investigated over 600 models of collaboration for the purposes of dissecting and understanding models of collaboration. Collaborations were evaluated based on the presentation of quantifiable evidence that the initiative significantly reduced redundancy and duplication of resources and achieved impactful results (Hager & Curry, 2009). The study revealed eight different organizational forms of collaboration. The focus of the analyses in the study was on the structural design and varied models of the collaborations. Each model resulted in effectiveness because it satisfied certain organizational or operational conditions which precluded its formation, and which ultimately resulted in quantifiable benefits for each participant (Hager & Curry, 2009). A brief overview of the eight collaborative structures follows.

A fully integrated merger occurs when two or more entities combine their operations in support of a common or complimentary mission to form a new organization. Preconditions for

formation are common missions, similar service offerings, competition for resources, and outside pressure to reduce duplicative structures (Hager & Curry, 2009). Challenges to forming a fully integrated merger include assimilation of organizational cultures, operational control, and supporting capacity needs of the other partner (Hager & Curry, 2009). Benefits of a fully integrated merger include additional resources, reduction of costs by eliminating duplicative back office operations, and elimination of competition (Hager & Curry, 2009).

A partially integrated merger occurs when two entities recognize the importance of keeping their individual identities for strategic purposes. Individual identity and operations are not completely integrated (Hager & Curry, 2009). Preconditions leading to this type of collaboration are characterized by one entity that is stronger or larger than the other. There is overlap in mission and services (Hager & Curry, 2009). Challenges to forming a partially integrated merger include perceptions that the collaboration is a takeover; the smaller partner may feel dominated by the larger stronger partner. Potential benefits include organizational stability, resource capacity, and elimination of competitive and overlapping services (Hager & Curry, 2009).

A joint program office is defined when two complimentary entities have common programs, which may benefit from joint support and overlapping complementary programming (Hager & Curry, 2009). Challenges of a joint program office include establishing operational rules, effective communication between entities, and establishing an effective contribution from each collaborator (Hager & Curry, 2009). If successful, benefits include organizational synergies, reduced resource outlays for operations, and maintenance of individual identity (Hager & Curry, 2009).

Joint partnerships with affiliated programming are collaborations characterized by a

relationship that is designed to take advantage of organizations that have shared missions but that provide different services. Two or more entities combine operational resources in support of coordinated services along a broader or deeper spectrum (Hager & Curry, 2009). Challenges in the formation of joint partnerships include agreement on parameters for reporting successes to the customer (who gets credit) and difficulties in defining operational responsibilities when there is no clear ownership (Hager & Curry, 2009). When successful, benefits include a greater depth and breadth of service to customers, culminating in greater benefits to stakeholders and a leveraging of resources (Hager & Curry, 2009).

Joint partnership for issue advocacy occurs when two or more entities with similar interests decide to advocate for issues that influence their operational environment. For purposes of speaking with a collective voice, these organizations join forces on long- and short-term goals for communication on common issues. Involved organizations offer leadership and staff in support of specific issues related to advocacy. Pooling of resources is leveraged for the communication of a stronger common message (Hager & Curry, 2009). Challenges often involve establishment of philosophical balance on issues and establishment on rules for sharing of cost associated with the initiative(s) (Hager & Curry, 2009). The benefits of these collaborations are reflected in successful messaging and advocacy that enhance the position of the entity.

Sometimes a partnership results in the birth of a new formal organization. This type of collaboration occurs when two or more entities with similar missions decide that a formal partnership is best executed by creating a new organization. There is usually recognition by leadership that the specific mission is best served in the long term by a newly formed entity. Leadership is characterized by an entrepreneurial culture and a maturity of purpose (Hager &

Curry, 2009). Challenges in the formation of a new entity include sustaining consistent funding, perception from stakeholders about the creation of duplicated services, and willingness of participants to give up ownership (Hager & Curry, 2009). Benefits include new programming without having to give up individual identity, availability of resource support, and targeted strategic focus on the new initiative (Hager & Curry, 2009).

Another model of collaboration is the sharing of back office systems and staff to form a joint administrative back office to perform common functional tasks associated with each entity. Back office operations include business processes, human resource processes, and other administrative processes. Conditions that influence the formation of shared back office collaboratives include the need for greater efficiency and reduction of personnel for business and political reasons (Hager & Curry, 2009). Challenges to this model include the uncomfortableness of participants with new organizational boundaries, merging of cultures, and establishment of common operational rules that benefit all partners. Benefits include greater efficiency, effectiveness, and opportunities for other collaborations (Hager & Curry, 2009).

The final collaborative model in the AIM study (Hager & Curry, 2009) is defined as a confederation. A confederation is an umbrella organization which has a number of individual entities connected to it. It is characterized by having multiple similar entities that serve different communities. The degree of control and resource support by the central entity can vary. Common challenges include balancing centralized control with individual identity, assurance that operational rules have a mutual benefit for the entire confederation, and establishing clear and consistent communication (Hager & Curry, 2009). Successful confederations reflect a broad coordination of service delivery across a broader geographic region, greater levels of resource coordination, and support.

The collaborations identified in the AIM study (Hager & Curry, 2009) reflect the eight most common organizational formations that were found in a review of 600 collaborative arrangements.

Educational service agencies (ESAs). The purpose of this subsection is to provide an overview of the purpose and structure of ESAs.

ESAs have existed in many states for decades and have been codified or written into state law or regulation in the 40 states in which they formally exist (Arfstrom, 2009). According to Arfstrom (2009), the term ESA was officially defined in the 1994 reauthorization of the Elementary and Secondary Education Act (ESEA) of 1965. The No Child Left Behind (NCLB) Act of 2001 defines an educational service agency as a regional public multiservice agency authorized by state statute to develop, manage, and provide services or programs to local educational agencies (LEAs). ESAs are named differently and are governed differently in the 40 states in which they appear (Arfstrom, 2009). They have a common operating mission, which is to provide cost-efficient, effective program services and leadership to the school districts they serve (Arfstrom, 2009). There are 560 ESAs in 40 states, each serving an average of 26 school districts (Arfstrom, 2009). As stated previously, ESAs are regional public multiservice agencies organized and authorized by state statute to develop, manage, and provide services or programs to LEAs (NCLB Act of 2001).

ESAs serve two major roles. First, they provide leadership instruction, support, and management services to school districts (Arfstrom, 2009). Second, they also manage many un-wieldy state education functions, such as student data collection, teacher certification, and technical assistance to districts (Stephens, 2004).

There are three basic types of ESA structures described by Stephens (2004). Each type of

ESA is delineated by the legislative or formative organizational act, which provided for its creation. The three types of ESA structures are special district ESAs, regionalized ESAs, and cooperative ESAs. A brief description of each type of ESA is explained next.

Special district ESAs are entities created by an act of state government to serve a body of specific school districts in conjunction with acting on behalf of the state's education agency (SEA). Governance tends to emanate from a local board of education, which is representative of its constituent districts. Its services are designed to support the local constituent districts and the SEA. Funding generally is a mix of local, regional, state, and federal resources (Arfstrom, 2009). BOCES in NYS fall into this category.

Regionalized ESAs are sometimes a branch of SEAs. This type of ESA is designed to deliver services to the SEA. The legal framework for these types of service agencies resides in SEA regulation; its governance is professional and advisory only. Programs are designed to support the SEA with funding emanating either from the state or federal governments (Arfstrom, 2009).

Cooperative ESAs are a loose consortium of LEAs and reflect the view that ESAs should be established by two or more local districts. Service and governance framework is designed to support school district needs and is reflected in inter-governmental statutes designed to help governments cooperate with one another. These types of cooperatives can be single purpose, limited purpose, or multi-purpose (Arfstrom, 2009).

Educational environments and operational conditions led to the development of ESAs across the nation as a major component of public education. Harmon, Keane, Leddick, Stephens, and Talbott (2012) outlined several conditions that led to the increased role of ESAs. First, despite the number of school district consolidations that have taken place nationally in the last

half-century, there are still a large number of small rural school districts who benefit from the economies of scale that ESAs provide. Second, educational and legal requirements for special needs students have increased. As a result, cost effectiveness is only achievable through economies of scale and regionalized programs. The third condition identified that led to the increased utilization of ESAs came from the realization by urban and suburban districts that they have experienced the same financial and educational reform pressures as rural and less wealthy districts and, therefore, would also benefit from shared services (Harmon et al., 2012).

In addition to these environmental conditions, Harmon et al. (2012) identified institutional practices that also contributed to the national growth of ESAs. These contributing factors were: organizational flexibility, regional perspectives, and service operations, which span traditional relationship boundaries between organizations. ESAs also act as regional advocates and coalition builders, thus providing avenues for gathering intellectual capacity and creating region wide efficiencies in the delivery of educational services. Despite the overall growth and effectiveness of ESAs, according to Harmon et al. (2012) and Arfstrom (2009), ESAs face greater competition and public choice. The following influential trends were identified as institution changing events that will shape the future of ESAs: growing public support for providing public choice in public services, growing use of performance measurement as a means of judging effectiveness, increasing demand for accountability and transparency, changes in the demographic profile of the nation, increased reliance on technology, increased educational outcomes for all children, and the apparent decline in public support for public education (Harmon et al., 2012).

New York State school district organization and regionalism. NYS has attempted to provide venues for school districts to reorganize by developing and adopting laws and rules for

reorganizing for purposes of educational effectiveness and efficiency.

School district reorganization in NYS is governed by a master reorganization plan. The Master Plan is an administrative and statutory effort intended to support school district reorganization (New York State School Board Association [NYSSBA] & New York State Bar Association [NYSBA], 2010). Its purpose is to provide education facilities in the most efficient and economical manner, while also serving the best interests of children. The plan was originally adopted by the New York State Education Department (NYSED) in 1947 and was designed to encourage consolidation, annexation, and centralization in order to improve the functioning of public schools. The plan resulted in the reorganization of many districts, a reduction in the number of school districts in the state, and the creation of larger districts (NYSSBA & NYSBA, 2010).

School district reorganization is a form of regionalization. There are numerous types of school reorganization available to NYS public schools. Each type is dependent upon its classification as a school district. Each has specific laws, rules, and procedures that must be followed. The following is an overview of school reorganization options under NYS law.

School district reorganization is the term used to define the statutory processes by which two or more school districts merge into a single district or when a school district is dissolved. The various methods of school district reorganization include centralization, annexation, consolidation, and dissolution; each has a different purpose and implication (NYSSBA & NYSBA, 2010).

Centralization is the most common form of reorganization (NYSSBA & NYSBA, 2010). A new central school district is created by the merger of two or more contiguous districts with a new school board and boundaries that encompass the area of the districts being reorganized

(NYSSBA & NYSBA, 2010).

Annexation is a reorganization procedure whereby any school district, other than a city school district, is dissolved, and its territory is annexed to a contiguous central school district or to a union free school district. The dissolution of the annexed district is a part of the annexation process and is different from the dissolution of a school district ordered by the district superintendent (NYSSBA & NYSBA, 2010). Unlike centralization, annexation does not result in the creation of a new district nor is a new school board elected. The operation of the annexing school district remains the same before and after the annexation. Residents of the annexed district become eligible to vote and may be elected to the school board of the annexing district in subsequent elections (NYSBBA & NYSBA, 2010).

Consolidation is a reorganizational procedure that may involve the merger of any combination of common or union free school districts to form a new common or union free school district (NYSSBA & NYSBA, 2010). Central and city school districts may not participate in the consolidation of union free and/or common school districts. However, consolidation may also involve the incorporation of districts contiguous to city school districts of cities with populations of less than 125,000 residents into the city school district. The resulting school district becomes known as an enlarged city school district. Similar to annexation, the district to be consolidated ceases to exist (NYSSBA & NYSBA, 2010).

Dissolution is another form of reorganization, in which a district superintendent, by order, dissolves one or more school districts within their supervisory district and forms a new district from such territory. Alternatively, the district superintendent may dissolve a district and unite the territory with an adjoining district or districts, other than a city school district (NYSSBA & NYSBA, 2010).

A district superintendent may also partition existing union free, central, central high school, and enlarged city school districts. The district superintendent may dissolve and reform the district if necessary or form a new union free or city school district out of such territory upon certain specified conditions set forth in the Education Law section 2218 (NYSSBA & NYSBA, 2010).

Forms of regionalization occur between schools. They are often designed to perform a function or group of functions common to the districts. The goal of the collaboration is to gain efficiencies and effectiveness in providing a service or solving a perceived common problem. The formation of these collaborations is usually between public sector entities in like settings, for example county-to-town, town-to-village, or school district-to-school district collaborations. One shared services arrangement allowed under NYS law is the formation of a consortium (NYS, Office of the State Comptroller, 1994). A consortium is an arrangement where two or more public entities collaborate to form an entity designed to solve a particular problem or perform the operation of a particular function that is common to the entities (NYS, Office of the State Comptroller, 1994). In NYS, a form of consortia activity occurs when school districts form a cooperative to manage health insurance or workers compensation insurance. These are often formed under Section 119–o of the NYS General Municipal Law or sometimes NYS Insurance Law Article 44 or 47, which allows for self insurance (NYS, Office of the State Comptroller, 1994).

Inter-municipal agreements or inter-municipal collaborations are defined as agreements or arrangements between two or more governments for accomplishing goals, providing services, or solving problems (NYS, Office of the State Comptroller, 1994). In NYS, under Article 5-G of the General Municipal Law, any municipal corporation or district may participate in a

cooperative agreement (NYS, Office of the State Comptroller, 1994). While other laws exist that enable municipalities to act in concert with each other, Article 5-G provides the statutory authority for cooperative agreements. This is important because this law does not determine the underlying activity or service, is simply allows for the legal formation of the agreement. In other words, Article 5-G allows for the formation of collaborative initiatives, but it does not determine the collaboration's operational rules. Any combination of cities, towns, villages, BOCES, fire districts, or school districts is eligible to participate. Two types of agreements are identified in relation to this law. The first is an agreement where municipalities jointly provide an activity, while the other is a contractual arrangement between participants (NYS, Office of the State Comptroller, 1994).

Functional consolidation is the arrangement between two or more entities to provide a common service among the entities. An example of this is the shared business office function that a BOCES provides for its component districts (Eggers et al., 2005). A common form of shared services and functional consolidation in public education within NYS occurs within the BOCES structure. The next section discusses the depth, breadth, and structure of BOCES in NYS.

Boards of cooperative educational services (BOCES). ESAs, in the form of BOCES, have been operating as part of the public education system in NYS since 1948, have grown in depth and breadth of services, and are increasingly called upon by NYSED to carryout state education policy. A brief history on the formation and operational footprint of the BOCES is presented next.

BOCES is the name given to ESAs in NYS (NYSED, 1996). BOCES have been rooted in the organizational history of the states' public education system since their formation by the

NYS legislature in 1948 (NYSED, 1996). Their mission is to provide shared services to school districts and to act as an intermediary agency between the state education department or agency and the school district (NYSED, 2011). The legislative action in 1948 by the NYS legislature to create BOCES was a reaction to concerns over equitable educational opportunities for rural students and was a result of the organizational structure in place at the time (NYSED, 1996).

The state legislature adopted a statute in 1910 that was designed to provide greater territorial jurisdiction and supervision over the public education system by creating supervisory districts and the title of *District Superintendent* (NYSED, 1996). The act was intended to provide greater supervision over school districts (NYSED, 1996).

During the 1930s, there were groups concerned with educational opportunities for rural children who began to push for the formation of intermediate school units or regional service agencies intended to support local school districts (NYSED, 1996). Also during this period, the legislature acted to consolidate the number of school districts and supervisory districts. By the early 1940s, the number of supervisory districts was reduced to 183 (NYSED, 1996). In 1943, the Council on Rural Education was formed and began to advocate for the creation of a regional educational system to provide educational opportunities to rural students based on the notion that the small-centralized districts lacked sufficient resources to provide the same opportunities that city and suburban districts had (NYSED, 1996). Two proposals were introduced to the legislature. One was for the creation of intermediate school units, which were proposed to have independent taxing authority. The second proposal was for the creation of regionalized service entities to fall within the boundaries of the previously established supervisory districts, which were to be managed by district superintendents (NYSED, 1996).

In 1948, the NYS legislature created intermediate school districts, which included a

provision for the establishment "of a board of cooperative educational services for the purpose of carrying out a program of shared educational services in the schools of the supervisory district" (NYSED, 1996, p. 2). In order to form a BOCES, a group of local school districts within the supervisory district needed to petition the Commissioner of Education for its creation. Each cooperative was to have five board members elected by the school districts representing the supervisory districts. The district superintendent would act as the CEO of the BOCES. The provision for establishment of BOCES led to the creation of 11 BOCES by the end of 1949 (NYSED, 1996). In 1972, the law creating intermediate schools districts was repealed without the creation of a single intermediate unit (NYSED, 1996).

The BOCES have grown to become an integral part of the educational structure within NYS since their inception in 1948. Today, there are 37 BOCES in NYS that include 688 member school districts. Expenditures for BOCES statewide in the 2009-2010 school year were $2.8 billion, with 1.54 million students being served (NYSED, 2011). Appendix A provides a summary of BOCES service expenditures and shows the growth of BOCES since 1996 (NYSED, 1996, 2011).

BOCES are often asked to carry out work for the SEA, as well as to provide services to local school districts. This role is reflected in the dual responsibility of the BOCES district superintendent, who acts as CEO of the BOCES and who is an employee of the state. The district superintendent is the liaison to the field for the Commissioner of Education. BOCES are governed by a board of education, whose members are elected from the citizens representing the supervisory district that the BOCES serves. School boards from the component schools vote on BOCES board membership and the administrative budget of the BOCES (NYSED, 2011).

Programs offered by BOCES today represent the growing sophistication of public

education and the needs of school districts and provide much needed leadership on regional education issues. Services today encompass direct instructional programming in the form of career and technical education (CTE), special education (SPED), instructional staff development (ISD), management and administrative services (MAS), and technology services (NYSED, 2011). There are over 350 different programs approved by NYSED as services that could be provided by BOCES in the following areas: vocational education (167), special education (16), general education (64), instructional support (66), and non-instructional support (40) (NYSED, 2010). Each individual program has detailed criteria that must be met in order to be approved by NYSED as a service and to qualify as eligible for incentive aid.

Shared service programs in NYS BOCES are formally called cooperative services (NYSED, 2002). Within the education community, they are commonly referred to as cosers (NYSED, 2002). In order to be approved as a shared service, certain legal and regulatory criteria must be met. These are either stipulated in NYS Education Law §1950, which is the law that established the BOCES, or they are part of NYS Commissioner of Education regulations. Education Law §1950 established BOCES "for the purpose of carrying out a program of shared educational services in the schools of the supervisory district" (NYSED, 2002, p. 1). NYSED has regulatory oversight over the operations of the BOCES and has further refined the operating guidelines applicable to the BOCES (NYSED, 2002). NYSED (2012) outlined the general parameters and philosophical basis from which BOCES are intended to operate. First, BOCES are responsible to be proactive leaders in developing regional education programs for the benefit of their component districts in a manner that is responsive and efficient to the needs of the school districts and the state education department. Second, BOCES are required to develop clear operational procedures for the development and execution of educational services using

resources in the most effective and efficient manner. Third, BOCES are supposed to operate on a regional basis and to cooperate with other BOCES for the delivery of requested services, particularly when greater economy, effectiveness, or efficiency can be achieved. NYSED also developed specific criteria for the operation of shared services through BOCES. These specific criteria are presented in the next paragraph.

More specific requirements for the operation of cooperative services are as follows: a) services must be approved by the NYSED annually; (b) services must involve two or more districts in order to be eligible for incentive aid; (c) services must meet all requirements of education law; (d) services must meet or exceed standards related to current budget efficiency or current effectiveness of delivery in order to receive NYSED approval; (e) BOCES must file for incentive aid annually for each of its component school districts; (f) a single district is limited to 60% aid on the cost of a full-time equivalent person's time; (g) sharing is established when BOCES employees deliver services to districts, and sharing can occur concurrently, meaning multiple districts can be served at the same time, or in succession, meaning multiple districts are served one after the other; and (h) aid on consultants is allowed only in cases specifically approved by the education department (NYSED, 2002).

Characteristics of Successful Shared Service Arrangements

Shared services, as a form of regionalization, have emerged as common organizational reactions to current operational conditions and have become commonplace in government, particularly across school districts (Eggers et al., 2005). Shared service arrangements create economies of scale and duplicate the positive impact of standardization that result from centralization (Eggers et al., 2005). Shared service models also allow for the continuation of local control and local identity, a problem often associated with consolidations and mergers

(Eggers et al., 2005). Sharing of services across governmental entities, particularly for schools, has been an increasingly used strategy to deal with these issues.

Farnsworth-Sipes (2010) conducted a mixed methods study of a consortium operating at the university level in the metropolitan Chicago area, which encompassed 18 public and private universities. The study was designed to investigate the presence of *success* attributes present in the consortia and utilized prior research regarding success attributes present within other forms of regionalized collaboratives. Based on the research, she evaluated 10 common attributes present in successful consortia operations: "(1) shared vision, (2) clearly defined goals, (3) strategic planning processes, (4) benefits for all members, (5) finance structures which benefit all members, (6) shared decision making, (7) frequent informal and formal communication, (8) marketing plans for the attainment of new members, (9) climate of cooperation, and (10) commitment to operations that are in the best interest of the whole" (Farnsworth-Sipes, 2010, p. 49).

Eggers et al. (2005) describe a number of critical attributes that a shared service needs to possess in order to represent a successful transformational process. First, the shared arrangement must have a clear vision and mission. It needs a reason to exist that is understood by participants. Second, business demands of the organizations involved must be such that they force a compelling reason to share. Third, the system leaders must understand change management. Fourth, staff must be experienced and well trained to perform the tasks. Last, the business processes of the sharing enterprise must be clearly understood.

Harmon (2006) outlined 12 essential characteristics based on qualitative data that were described in interviews conducted with superintendents about ESAs. These essential characteristics described by the 25 different superintendents interviewed by Harmon were: (1)

The service agency must practice a servant mentality; (2) The service agency must nurture relationships with local superintendents and the state education department; (3) The service agency should understand the rural context and the conditions caused by limited resources and increased requirements of heightened academic standards; (4) The service agency listens to and responds to district needs; (5) The service agency employs credible personnel; (6) The service agency provides cost saving services; (7) The service agency keeps up to date with current issues and best practices; (8) The service agency manages data effectively; (9) The service agency uses technology efficiently and embraces the use of technology, particularly ones that enhance efficiency; (10) The service agency demonstrates effective leadership, communicates clear vision, and uses decision making processes effectively; (11) The agency provides targeted and timely staff development; and (12) The service agency exhibits friendliness and a cooperative attitude.

Theoretical Constructs That Influence Consumer Behavior

The purpose of this section is to present information relating to the factors that affect consumer opinions about product/service quality and, consequently, that impact decisions to purchase those products/services. Perceptions of quality, value, and choice affect a consumer's opinion and decision to use services provided by organizations. In the case of governmental entities, perceptions of citizens greatly influence their perception of the quality, value, and efficacy of services provided by government organizations.

Consumers perceive quality in their own unique ways, and, for service organizations, their preferences should be treated as non-negotiable performance standards (Garvin, 1987). Consumers' definitions of quality have changed over time because consumer expectations change to match current societal norms (Garvin, 1987). According to Garvin (1987), no matter

the degree of consumer perception about quality, it always equates to pleasing the consumer.

Garvin's (1987) research on consumer behavior outlined eight dimensions of quality, which are transferable to all entities, regardless of the product or service. These eight dimensions of quality are: 1) Performance, which refers to products primary operating characteristics; 2) Features, which are a secondary aspect of performance and whose characteristics supplement performance and are sometimes described as the bells and whistles; 3) Reliability, which is a dimension that refers to the likelihood of the item malfunctioning; 4) Conformance, which is the degree to which a products design or a service design meets established standards; 5) Durability, which is a measure of the product life or how much use one can get out of the product before it deteriorates; 6) Serviceability, which refers to the speed, courtesy, competence, and ease of repair and which is important because consumers are often concerned about how quickly and the degree of ease in repairing what goes wrong; 7) Aesthetics, which refers to how the product looks feels, sounds, or smells, and this is often a matter of personal judgment and a reflection of personal preference; and 8) Perceived quality, which represents a less tangible proof of quality. Perceived quality is based on individual perceptions, which are often received in an indirect manner. Therefore, these are inferences about quality rather than reality.

Kenyon and Sen (2012) link the dimensions of quality and the creation of consumer perceptions of quality to the products and services purchased by the consumer. They state that consumer satisfaction is directly related to how consumer expectations are met. Expectations are developed from perceptions that consumers have. If an organization develops new products or services, it must understand how the various product or service attributes affect consumer perceptions. Organizations can gain a competitive advantage by understanding the causal

relationships between the various dimensions of quality (Kenyon & Sen, 2012). In other words, if organizations understand how consumers evaluate products and services, they can gain a competitive advantage and adjust their marketing and product development accordingly.

Kenyon and Sen (2012) developed a model from their research about consumer behavior to help understand why consumers judge the quality of services in the manner that they do. Kenyon and Sen state that information processing by consumers relates to the behavior of the consumer and that consumers frequently make judgments and decisions based on limited information and knowledge. Product impression becomes a result of perception and interpretation of information processed by the consumer. Further, they state that expectations influence the overall product/service evaluation and assessment. According to Kenyon and Sen (2012), two types of consumer expectations influence perception and behavior: predictive and normative. Predictive expectation refers to a consumer's preconceived notion about the product/service. Normative refers to value judgments related the product/service. Consumers measure product/service performance against the predictions or expectation they had prior to their use of a product or service. Therefore, information processing on the part of the consumer has an impact on his/her perception.

Consumer information processing has three components and is important in understanding the behavior of consumers. A brief summary of Kenyon and Sen's (2012) three components are outlined below:

- Search properties. These are product or service characteristics that can be easily identified, evaluated, and compared by a consumer prior to purchase. This assessment is often an objective measure of performance. These include such things as color, style, price, fit, and smell.

- Experience properties. These are product characteristics or service attributes that can only be identified after purchase or use. These include such things as taste, wear-ability, and purchase satisfaction.
- Credence properties. These are product or service attributes that cannot be discerned before or after purchase or consumption. In other words, customers have difficulty evaluating because they do not have enough knowledge to evaluate. These are things such as insurance, surgical procedures, auto maintenance work, or other professional level work.

Kenyon and Sen (2012) also link their conceptual model to customer loyalty and customer retention. They state that loyalty and retention have both a long-term and a short-term component to them. Long-term loyalty is focused on customer satisfaction, and short-term loyalty is transaction specific (Kenyon & Sen, 2012).

They explain loyalty and satisfaction in the following manner. Satisfaction has two principal components. Appraisal satisfaction, which is a need based approach. This means that the customer behavior/evaluation process matches perceived reality to current experience or expectation. In other words, it is the interpretation of the experience balanced against expectation (Kenyon & Sen, 2012; Tian-Cole & Crompton, 2003). The second component of satisfaction is expectancy-disconfirmation theory, which has two separate but connected pieces: the development of expectations for a particular outcome and the disconfirmation judgment that results from comparing the outcome against the expectation (Kenyon & Sen, 2012; Oliver, 1980). Stated more simply, preconceived consumer expectation about the product/service plays an important role in the consumer's positive or negative perceptions of the outcome.

The notion of preconceived consumer expectations is also found in research by Korda

and Snoj (2010), who contend that perceived service quality is strongly linked to customer satisfaction and that perceived value acts as a mediator between quality and customer satisfaction. They state that there are three factors relevant to service quality: safety, confidence, and physical evidence. Odekerken-Schroder et al. (2001) define three dimensions of quality:

- Technical quality refers to the depth, breadth, mix, and composition of products or services offered.
- Functional quality focuses on courteous and professional communication with the customer.
- Relational quality refers to the customer's ability to affiliate with others during the service encounter.

Hayes (2008) identified a measurement model for evaluating quality within a number of dimensions. Specific examples of these dimensions are: "availability of support, which is the degree by which customers can obtain service support; responsiveness of support, which is the degree to which the provider reacts to customer requests; timeliness, which is the degree to which the provider reacts and responds to the need for support based on customer expectations; completeness of support, which is defined as the degree to which the support is completed; and pleasantness of support, which is the degree to which service providers utilize established expectations for professional politeness and courteousness" (Hayes, 2008, p. 13).

When measuring customer perceptions and attitudes, researchers need to ensure that definitions of perceptions and attitudes are clear to the consumer and understood by researcher (Hayes, 2008). Hayes (2008) states that notions of customer satisfaction and perception of quality have observable actions related to variables that can be defined and measured (p. 34).

The chapter began with a presentation about the concept of regionalism, its impact as a

factor in public policy decision making, and its subsequent impact upon regionalism in public education. Regionalism was presented in the context of political theory and public policy.

The second section was a presentation regarding the economic, political, and educational conditions prevalent in NYS that have formed the basis for recent governmental and educational reform initiatives.

The third section presented a discussion about trends in regionalism and the increased use of shared service models, which was intended to set the context for a discussion on types of shared service models. It also described various collaborative organizational models based on research conducted jointly by three major universities and then moved to a presentation about ESAs, as institutions specifically designed to support shared service initiatives within the US public school system. This section also focused on regionalism and BOCES in the NYS public education system.

The section also presented information about participation in shared service collaboratives and research regarding organizational characteristics present in successful regional collaboratives and shared services. This section presented a review of literature that investigated traits, structures, and perceptions embodied within successful collaborative initiatives. The final section in this chapter focused on the elements of consumer behavior, which influence consumer perceptions about value, choice, and participation.

The next chapter describes the methods, purpose, and rationale that formed the basis of this quantitative study.

Chapter 3: Methods

This chapter describes the purpose, rationale, and methods that were the basis of this research. This chapter includes details about research design, population, sample, instrumentation, data collection, bias, variables, data analysis, validity and reliability, and research delimitations.

This study was designed to investigate the specific factors that influenced NYS school superintendents' decisions to use services provided by BOCES. This study surveyed superintendents in NYS school districts that belonged to a BOCES and sought to answer the following research questions developed by the researcher.

1. What perceptions do superintendents hold about the service and leadership attributes associated with the programs and services offered by BOCES?
2. What factors influence a superintendent's decision to use or not use BOCES services?
3. Is there a relationship between a superintendent's decision to use BOCES services and the view of BOCES as a strategic partner in helping solve the district's operational and educational challenges?
4. Is there a relationship between certain school demographic characteristics and a superintendent's perception of BOCES?

Research Design

This is a quantitative study. The researcher collected data via an online survey from all NYS school superintendents whose school districts belonged to one of the 37 BOCES in NYS. Currently, 688 school districts out of 697 districts in NYS are members of a BOCES. A survey instrument was used to collect data in order to answer the research questions. The survey was designed and organized to capture information related to the perceptions of superintendents and

subsequent factors that influenced the decisions of superintendents to use BOCES services for their districts.

Additionally, the questionnaire collected demographic information that allowed for disaggregation and analysis by school size, geographic location, wealth, and local resource capacity. Wealth was measured using the CWR, which is a measurement of a school district's property and income wealth measured against a statewide average. Local resource capacity was measured using the NRC, which is a measurement of the district's ability to meet the needs of its students with local resources. Both of these measurements are utilized by NYSED for distribution of state aid to schools.

A quantitative research survey method was chosen for this project for several reasons. First, this type of research is best suited for the systematic collection of opinions and actions of a population. Second, it allows for the generalization or extrapolation from a sample to a larger population (Creswell, 2009). Surveys can be an effective instrument to collect data from an identified population. However, survey responses often do not reflect the entire population that the research project covers, therefore it is important to be able to construct analyses of the data that are generalizable to the larger population. Finally, results can be analyzed using descriptive and inferential statistics to provide a detailed description of the phenomena (perceptions) and any correlational or comparative relationships between the variables (decisions and demographics). These statistical tests provided the basis for analyses, which answered the research questions and ultimately resulted in summative conclusions about the research (Creswell, 2009).

The independent variable in the study was the perception of the superintendent. Independent variables are those that influence, or cause, certain outcomes to occur (Creswell, 2009). The dependent variable is this study was the decision of the superintendent, which was

impacted by perceptions, the independent variable. This study also encompassed moderating variables, which were the demographic items. A moderating variable is one that has an influence upon the relationship between the independent variable and the dependent variable (Vogt & Johnson, 2011).

This research project also endeavored to understand if there was a relationship between a school district's demographic characteristics and the impact upon a superintendent's perception and the subsequent decision to use a BOCES service. A descriptive and correlational design was a well-matched method for this research because the descriptive design captured perceptions of superintendents about regionalized education services through BOCES and in subsequent decisions to use BOCES services. Data collection, design, and analyses were based primarily on the following eight service related attributes: cost, applicability to district needs, quality, staff expertise, participant input, clarity of participation rules, quality of interaction with BOCES staff, and incentive for participation. These service constructs were then sub-grouped into three categories: service and performance, financial considerations, and rules and regulations.

In addition, superintendents' perceptions of BOCES organizational and institutional leadership qualities were measured. The leadership construct included the following qualities: communication related to fiscal operations, communication related to services it provides, perceived development of innovative services, timely development of services, perception of leadership regarding state and regional issues, customer service orientation, and understanding of school district needs. Chi-square, cross tabulation, and regression analyses revealed relationships between and among the service attributes and perceptions. In addition, analyses revealed relationships among the service attributes and the actions of superintendents in the identified service and leadership attributes, as well as within BOCES program areas. Analysis

also indicated that there was impact that certain demographic characteristics had as moderating variables on these processes.

A Survey Monkey online survey tool was used for questionnaire design and data collection. This tool and process were chosen by the researcher because of the low cost, the convenience of design options, and the ability to collect survey data in a confidential manner. Email addresses of superintendents were obtained from NYSED and were imported into Survey Monkey using Microsoft Excel software.

Population and Sample

The population of superintendents from 688 school districts surveyed was determined by their districts' memberships in BOCES. There are currently 37 BOCES in NYS and 697 public school districts, including New York City. The big five school districts, New York City, Buffalo, Yonkers, Syracuse, and Rochester, were not included in this study. In addition, Albany City School District, Hoosic Falls School District, Momaroneck School District, and Newburgh City School Districts were not members of a BOCES and were not included in the study.

This study targeted the perceptions of superintendents because of their leadership responsibility as the chief school administrator in their respective districts. The 688 superintendents receiving the online tool via email represented the broadest census possible given the scope of the research. In survey research, selection of the population and sample to be studied is critical to the collection of valid and reliable data (Gall, Borg, & Gall, 1996). Population validity was achieved in this research project through the selection of a broad target population, not a sample of the population. In this study, the sample population represents the entire population. Therefore, the selection of the entire population of NYS superintendents who

were members of a BOCES was most appropriate because it allowed for greater representation of the target population. The next section describes the survey instrument.

Survey Instrument

Survey questions were specifically designed to gather data that answered the research questions using constructs central to the study of consumer behavior, organizational leadership, and successful shared services. Items in the survey were based on concepts related to service and performance, financial considerations, rules and regulations relating to participation in shared services, organizational leadership, and strategic partnerships. The researcher developed the survey items based on these concepts that were found in research about service organizations, shared services, and leadership along with consumer perceptions of quality, effectiveness, and value. These elements appear in the work of the following researchers: Afrstrom, 2009; Calabrese, 2012; Garvin, 1987; Harmon, 2006; Kenyon and Sen, 2012; and Macdonald, Wilson, Martinez, and Toossi, 2011. Survey questions were developed by the researcher using the conceptual constructs mentioned previously and were then designed to fit the specifics of this research project. In order to ensure a well-balanced survey instrument, the researcher developed a matrix that aligned survey question design, content, and narrative to the research questions.

The complete survey consisted of four parts with 28 questions (see Appendix E). Twenty-one of the questions utilized a four-point Likert scaling method. The remaining seven questions required the respondent to choose an option based on categorical ranges. A Likert scaling method is the most widely used scaling method in the social sciences because of its reliability in addressing attitudes, opinions, and perceptions (Vogt & Johnson, 2011). The initial seven questions in the survey were designed to capture demographic information related to the school district, as well as experiential information about the superintendent. Demographic

questions focused on size of the district, measured by 2011-2012 enrollment and budget of the district. Socio-economic status was captured through the collection of two common wealth based ratios used by NYSED to determine distribution of state aid. The first was CWR, which is a measurement of a district's income and property wealth. The second measurement was NRC, which is a measurement of a district's ability to meet its needs with local resources. Response options for these demographic questions were grouped or clustered into ranges to facilitate ease of response and to help protect the identity of respondents.

There were 10 geographic regions identified on the survey. Respondents were asked to provide the geographic location of their district, based on those 10 regions, which were identified by groups of counties. Part two of the survey consisted of seven questions, all targeted toward perceptions related to regionalized education services and BOCES. The questions used a Likert scale to measure perceptions ranging from very negative (1) to very positive (4). Questions were structured to seek information about perceptions based on eight identified service attributes and characteristics related to organizational leadership of BOCES. The eight service attributes were consistently used throughout parts two, three, and four of the survey. The eight attributes which encompassed the service attributes construct and which were framed in the survey to be investigated as perceptions or factors that influenced behavior were: reduction of cost, services that fit district needs, quality of service, expertise of staff, participant input, clarity of participation rules, quality of interaction with staff, and monetary incentive to participate. These eight service attributes were then subdivided into three categories to aid in the analysis of the data. The three sub-groups were service and performance, rules and regulations, and financial considerations.

Leadership characteristics included effectiveness of communication related to fiscal and service activity, development of timely and innovative services, leadership about state and regional education issues, and the degree to which district needs are understood by BOCES. Research related to successful shared service collaborations and consumer behaviors identified these similar attributes or constructs in the measurement of effectiveness and quality (Arfstrom, 2009; Garvin, 1987; Harmon, 2006).

Part three of the survey consisted of seven questions designed to gather perceptions related to specific BOCES programs in the superintendent's BOCES. Programs were divided into the following areas: career and technical education (CTE) programs, special education (SPED) instructional programs, related services (RS), instructional staff development (ISD), instructional technology (INSTECH), administrative technology (ADMTECH) provided by regional information centers (RIC), and management and administrative services (MAS). Each service area was evaluated using the eight service attributes mentioned above.

Part four of the survey sought to collect information concerning decisions or actions made by superintendents based on the eight service attributes. There were six questions, each connecting decisions and actions to the eight service attributes and leadership qualities present in BOCES. The survey concluded by asking superintendents the degree to which they believed BOCES was a strategic partner in helping them solve district needs.

The survey instrument was built to utilize the benefits of statistical techniques designed to capture and assess attitudes about the perceptions that superintendents had about BOCES. The constructs and attributes to be measured, in terms of superintendent attitudes toward BOCES, were embedded in the survey questions and were analyzed within three sub-groupings. The three sub-groupings were service and performance, financial considerations, and rules and

regulations. These groupings were intended to help in understanding the conceptual phenomena resulting between individual variables that were related in meaning, but that were within a larger construct. For the purposes of this study, they were constructed to specifically capture attitudes of superintendents regarding their perceptions about the quality of services provided by BOCES and their perceptions about the leadership attributes displayed by BOCES. These constructs were used to measure a range of attitudes (perceptions) about features of service delivery provided by BOCES and leadership attributes present in BOCES as service agencies and were intentionally selected as critical characteristics of an effective BOCES organization.

The construct related to consumer behavior covered two components within the research. First, the construct was used to capture perceptions, and then the construct variables (service attributes) were used to capture the range of decisions related to the perceptions. As stated previously in this chapter, these constructs were extracted and developed from general concepts taken from a review of the literature pertaining to attitudes and perceptions that impact consumer behavior. Individual variables were rated on a continuous four-point scale ranging from 1 (not important) to 4 (very important). The eight-item construct was used to gather data about regional educational collaboratives, about BOCES as a whole, and, more specifically, about targeted areas of BOCES services. The same eight-item construct was used to gather data about superintendent's decision making, as it relates to utilization of BOCES.

The leadership construct consisted of the following characteristics: effectiveness of communication related to fiscal and service activity, development of timely and innovative services, leadership about state and regional education issues, and the degree to which district needs were understood by BOCES. This construct was specifically designed with these variables because of their relationship to the service related attributes. This construct was also

encompassed in the survey questions that were designed to seek information about the superintendent's decision making process.

Survey questions also targeted demographic and socio-economic data about the superintendent's school district, as well as experiential information about the school district superintendent. These questions were addressed in the survey instrument with questions 1-7. This section of data was analyzed using inferential methods to examine the relationships that existed between demographic characteristics and a superintendent's perceptions about BOCES and decisions to use BOCES services. Comparisons were analyzed for each of the demographic questions. Bivariate and multivariate correlational methods or analyses of variance were used to examine the moderating impact of socio-economic information on perceptions and decisions. Bivariate and multivariate correlations measure the *strength* of the relationship between two or more variables (Borg & Gall, 1989).

The survey contained instructions and brief statements, which explained each section. In addition, the instructions also contained information that told participants that they could opt out at any time.

Data Collection

Survey Monkey, an online data collection tool, was used to collect data from the population. In addition, the online survey tool allowed for the confidential collection of data from participants.

In preparation for the release of the survey, a letter was sent electronically to all BOCES district superintendents informing them of the research project (see Appendix C). The letter informed the BOCES district superintendents of the research project, the project's significance for BOCES, and the details about execution of the survey. The 688 superintendents received

communication through email notifying them of the research project and survey along with instructions about completing the survey, including notification that the survey was voluntary and confidential (see Appendix B). In addition, each participant superintendent received an informed consent notification that outlined the minimal risk involved in the study and that participation was voluntary (see Appendix D). No incentive to participate was offered. Approximately one week after sending the initial survey, an email was sent to each school superintendent reminding him or her to complete the survey. Additional emails were sent weekly as reminder notices until the survey closed. The purpose of the reminders was to increase the response rate. The survey was available for 28 days.

Survey results were downloaded from Survey Monkey into Microsoft Excel and imported into IBM Statistical Package for Social Sciences (SPSS) software, version 20, for analysis. The data were analyzed using a number of specific statistical techniques designed to examine the relationships between the unit of analysis (superintendent), dependent (decision), independent (perception), and moderating (demographic) variables. Data, which were determined by the researcher to be critical and pertinent to the study, are displayed and discussed in chapter four of the study report.

Confidential data collection was intentionally chosen by the researcher in an effort to reduce potential participant anxiety. The researcher also expected that confidentially would enhance the quality of responses, as well as the response rate, and thus allow for more meaningful insight about the research topic.

Validity and Reliability

Validity and reliability of the survey were confirmed as part of the research process. Validity was confirmed using face validity, a standard research technique used when constructing survey instruments.

To determine the validity of the survey and to reduce researcher bias, the researcher selected a panel of experts from the field of education to review the survey for overall efficacy and ease of completion before it was distributed. The panel of experts consisted of two retired school superintendents, three sitting district superintendents, and three other school administrators. In order to confirm validity, the researcher had the survey instrument field tested by the field experts listed previously. Field experts were asked to confirm the face validity of the instrument using a rubric constructed by White and Simon (n.d.), which utilized a Likert scale, ranging from not acceptable (1) to exceeds expectations (4). Criteria for evaluation consisted of clarity, wordiness, negative wording, overlapping responses, balance, use of jargon, and appropriateness of response options. In addition, every effort was made by the researcher to create a balanced and neutral set of questions.

Experts in the field of education were also consulted in the design of the survey before field testing. In addition, internal reliability analysis of the survey was done using Cronbach's alpha, which measured the internal consistency of items within the survey (Vogt & Johnson, 2011).

Bias

Avoidance of research and response bias in a research project is critically important to the efficacy of the research. Bias occurs when any element of the research project produces systematic errors in research findings. It can occur at any point in the design and/or execution of

the study. Bias or reflexivity can generally be broken into two components: researcher bias, which is an acknowledgement by the researcher of personal predispositions and how they can influence observations, and responder bias, which occurs when unanswered responses from a survey instrument skew results of the survey (Vogt & Johnson, 2011). Bias is difficult to avoid completely because the researcher, in many instances, is part of the context from which the study emanates (Gall et al., 1996). In this case, the researcher was a deputy superintendent at a BOCES in NYS. In order to reduce bias, the researcher had the survey field tested by experts in the field of education. The researcher also consulted with two educational research experts during the development of the instrument in order to create a well-balanced survey that was free from words that could suggest researcher bias.

Data Analysis

Survey responses were downloaded from Survey Monkey into Microsoft Excel and imported into IBM SPSS software, version 20, for analysis. The data were analyzed using a number of specific statistical techniques designed to examine the relationships between the unit of analysis, dependent, independent, and moderating variables. Data, which were determined by the researcher to be critical and pertinent to the research questions, are displayed and discussed in the next chapter. All analyses were conducted and reported in aggregate. Combinations of descriptive and inferential statistical methods were used to analyze the data in the context of addressing the four research questions. Various statistical methods were utilized in order to extract as much information from the data as possible. The analysis of data examined relationships within individual variables and also examined the relationships between sets or groups of variables. The research questions, in combination with the structure of the survey questions, determined the type of statistical tests used.

Descriptive methods were used to examine all variables within the study and helped to answer basic questions contained in the survey, which pertained to the four research questions. Further, they acted as a basis for the application of inferential statistical tests, which were used to analyze the deeper relationships that existed in the data (Borg & Gall, 1989). The analysis of the deeper relationships between the variables helped the researcher to draw conclusions about the major constructs in the research.

According to Creswell (2009), descriptive statistics involve the analysis and organization of data to reflect the general tendencies within the data. They include frequency counts, frequency distribution, measures of central tendency, measures of range, and cross tabulation. They are used to describe the variability in the data (Borg & Gall, 1989). Inferential statistics are used in the process of analyzing data and relationships that exist within components of the data and focus on comparing groups of data or relating two or more variables within the research data (Creswell, 2009). Inferential techniques enable the researcher to make inferences or predictions about the population based on survey results and extrapolations to a larger population. This study investigated the perceptions of school district superintendents in NYS about BOCES.

The population selected for the study encompassed all of the available population of school superintendents who were members of a BOCES. However, not all of the invited participants chose to participate. The inferential methods used in the research project included, the following analytical testing methods: ANOVA, chi-square, multiple linear regression, and Pearson product-moment correlation. These are statistical methods used to show relationships between components or variables in social science research studies. Appendix G provides a listing of tables cross referenced by survey question, research question, and the type of statistical test used. The researcher used the results of the analyses to explain the phenomenological

relationships that existed between superintendents' perceptions of services provided by BOCES, leadership characteristics present in BOCES, and the degree to which demographic characteristics had a moderating impact on perceptions and decisions to use BOCES services, as well as their view of BOCES as a strategic partner. Cronbach's alpha was used to determine the internal validity and reliability of the variables within the constructs and between the questions.

Summary

This chapter described the methodology used in this quantitative study. The next chapter discusses and investigates the responses to the survey instrument and provides analyses of the data collected in the context of the four research questions.

Chapter 4: Data Analysis

This study surveyed superintendents in NYS school districts that belonged to a BOCES and sought to answer the following research questions:

1. What perceptions do superintendents hold about the service and leadership attributes associated with the programs and services offered by BOCES?
2. What factors influence a superintendent's decision to use or not use BOCES services?
3. Is there a relationship between a superintendent's decision to use BOCES services and his/her view of BOCES as a strategic partner in helping solve their district's operational and educational challenges?
4. Is there a relationship between certain school demographic characteristics and a superintendent's perception of BOCES?

The purpose of this chapter is to present the data from the survey about each research question. The chapter is organized and presented according to research questions and begin with an overview of participant characteristics.

Participant Characteristics

Survey invitations were emailed to the 688 superintendents who belonged to a BOCES in NYS. There were 281 (41%) who responded to the survey invitations. A total of 237, or 84%, completed the entire survey. There were 44 partial completers.

Table 1 presents an overview of descriptive demographic data relating to the responding population of superintendents. Data were derived from seven survey questions designed to capture information about the superintendent and his or her school district. Demographic questions were designed around four areas: superintendent work experience, district wealth, district size, and district geographic location.

Table 1 shows that 48% of the respondents indicated that they had between 0 and 5 years of experience, and 29% indicated that they had between 6 and 10 years of experience. Therefore, 77% had up to 10 years experience. In addition, 67% of respondents indicated that they were serving within their first five years of the superitendency in their current districts, and another 28.1% indicated that they were serving between their 6th and 10th years at their current district. Combined, nearly all of the superintendents (95%) indicated they had 10 years or less experience in their current district.

Over half of the total respondents (52%), reported that their districts were classified as high need districts. Of the group that reported that they were a high need district, 43% were in high need-rural districts. The other 9.0% indicated that they were in high need-urban/suburban districts. In addition, 37% indicated their districts were average need.

Table 1

Demographic Information: Superintendent Experience, District Size, and District Wealth

Demographic feature	*N*	*n*	%
Years as a superintendent	279		
0-5 years		135	48.4%
6-10 years		82	29.4%
11-15 years		31	11.5%
16-20 years		12	4.3%
21+ years		18	6.5%
Years as a superintendent in this district	280		
0-5 years		187	66.8%
6-10 years		73	26.1%
11-15 years		11	3.9%
16-20 years		7	2.5%
21+ years		2	0.7%
District budget (in millions)	278		

$0-$25		144	51.8%
$26-$50		64	23.0%
$51-$75		25	9.0%
$76-$100		15	5.4%
$100+		30	10.8%
Combined wealth ratio	202		
High need: 0.0-0.7706		116	57.4%
Average need: 0.76061-1.188		49	24.3%
Low need: > 1.188		37	18.3%
Need to resource capacity	277		
High need-urban/suburban		25	9.0%
High need-rural		120	43.3%
Average need		102	36.8%
Low need		30	10.8%

Districts were also asked about their CWR. CWR is a measurement of a school district's income and property wealth expressed in relation to a statewide average. School districts are often grouped by wealth according to CWR. For purposes of this research project, CWR numerical values were grouped into three categories: high need, average need, and low need. The categories shown in Table 1 are grouped using the same numerical values used to group NRC. They may also be grouped by wealth and need according to NRC. The groupings according to NRC are high need, average need, or low need.

Table 1 also shows the need of those districts that responded to the survey according to CWR. Fifty-seven percent of responding superintendents indicated that their district had a CWR of less than of less than .7706, which indicated that they were a high need district. In addition, 18% indicated they were a low need district, having a CWR of greater than 1.188.

School district size was measured by the number of students in the district. Size was also measured by total budget dollars. A majority (58%) of the superintendents indicated that their

districts had an enrollment of 1500 students or less. Another 23% indicated they had an enrollment between 1501-3000. Combined, 75% had enrollments less than 3000. Over half, 52%, had budgets under $25 million, and another 23% had budgets between $26-50 million.

In comparison, the profile of NYS schools, outside of New York City, for this category of demographic data was similar to that of the respondent population. They were as follows: $0-25 million (44%), $26-50 million (24%), $51-75 million (12%), $76-100 million, and $100+ million (13%). The one group with the greatest variation was reflected in the $0-25 million group, where the respondent population represented 52% of the total. In comparison, the statewide population in this category was 44%, a difference of approximately 7%.

The geographic distribution of respondents is reported in Table 2. Respondent representation was evenly distributed across the 11 regions. The largest three regions were Capital Region with 15% of the total respondents, and the North Country and Long Island at 12.9% each. The region with the fewest respondents was the Mid-Hudson Valley at 5% of the sample.

Table 2

School District Geographic Location

Geographic location	*n*	%
Long Island	36	12.9%
Lower Hudson Valley	20	7.1%
Mid-Hudson Valley	14	5.0%
Capital Region	42	15.0%
Mohawk Valley	21	7.5%
Central New York	27	9.6%
North Country	36	12.9%
Southern Tier	29	10.4%
Finger Lakes	23	8.2%

Western New York	32	11.4%

Note. $N = 280$.

No data readily existed statewide that could be used to draw comparisons between the respondent population and the statewide population of school districts according to geography. This is because districts are not categorized statewide in this specific regionalized approach.

The purpose of this section was to describe and summarize the respondent population in for this research.

Research Question #1: What perceptions do superintendents hold about the service and leadership attributes associated with the programs and services offered by BOCES?

This research question sought to understand what perceptions were held by superintendents about BOCES. This research question was designed to capture perceptions from varying levels of perspectives, ranging from a very general perspective about regionalized education services to perceptions of leadership attributes about BOCES, as well as perceptions about specific BOCES programs. General institutional level questions were addressed by questions 8-14 in the survey. Questions about seven specific areas of BOCES services (CTE, SPED, RS, ISD, INSTECH, ADMTECH, and MAS) were addressed in questions 15-22 in the survey.

The data analyses were designed and organized into eight categories in order to gain insight into superintendents' perceptions.

Research question one endeavored to gather information on two levels. First, it sought to gather information about the perceptions and beliefs of superintendents about regionalized education initiatives and BOCES, focused at an institutional level, as initiatives designed to provide shared services. The analysis of data for this research question was organized into the following subparts or components:

- Perceptions of regionalized education services
- Perceptions of service attributes that contribute to effective BOCES services
- Overall perceptions of BOCES
- Perceptions of BOCES leadership attributes
- Perceptions of individual BOCES programs
- Perceptions by service attribute
- Changing perceptions resulting from the recent economic recession
- Perceptions of superintendents based on prior experiences with BOCES

Descriptive statistics, means, chi-square, cross tabulations, and multiple regression were used to analyze the data and to determine what relationships existed.

Perceptions of regionalized education services. Regionalized education services included shared services such as those offered through BOCES, district-to-district shared services, consortia activities, inter-municipal agreements, and other possible collaborations. Table 3 indicates the level of importance of selected service attributes, which contributed to the effectiveness of regionalized education services. Service attributes were grouped into three categories of similar items in order to facilitate the analyses. The three categories, which are reflected in Table 3, were service and performance, rules and regulations, and financial considerations. Reduction of costs, services fit district's needs, and quality of service were ranked as the three most important service attributes that contributed to the effectiveness of regionalized shared education services. Reduction of costs falls within the financial considerations category, and the other two fall within the service and performance category. The lowest ranked service attributes, in terms of importance in contributing to the effectiveness of

regionalized education services, were clarity of participation rules (34.5%) and participant input (39.1%). These both fall within the rules and regulations category.

Table 3

Perceptions of Service Attributes that Contribute to Effective Regionalized Education Services

	Not important		Somewhat important		Important		Very important	
Service attribute	*n*	%	*n*	%	*n*	%	*n*	%
Service & Performance								
Quality of service	0	0.0%	2	0.8%	62	24.2%	192	75.0%
Service fits district's needs	0	0.0%	4	1.6%	66	25.8%	186	72.7%
Expertise of staff	0	0.0%	7	2.8%	82	32.3%	165	65.0%
Quality of interaction with staff	0	0.0%	22	8.6%	113	44.1%	121	47.3%
Rules & Regulations								
Participant input	0	0.0%	36	14.1%	120	46.9%	100	39.1%
Clarity of participation rules	0	0.4%	40	15.7%	126	49.4%	88	34.5%
Financial considerations								
Reduction of costs	0	0.0%	10	3.9%	63	24.6%	183	71.5%
Monetary incentive to participate	0	1.2%	26	10.2%	70	27.3%	157	61.3%

Perceptions of service attributes that contribute to effective BOCES services. Table 4 indicates the level of perception of importance of the selected service attributes that contributed to the effectiveness of services provided by BOCES. Eight service attributes were measured for their importance in contributing to the overall effectiveness of BOCES services.

The data indicated that three of the eight service attributes were rated the highest in terms of the importance of their contribution toward effective BOCES services. The three most frequent attributes contributing to the importance of effective BOCES services were service fits district's needs (77.3%), quality of service (75.7%), and reduction of costs (67.7%). Quality of service and service fits district's needs fall within the service and performance group. Reduction of costs falls within the financial considerations group. In addition, expertise of staff received a relatively high frequency of importance at 65.7%. The least important of the responses were

participant input at 39.1% and clarity of participation rules at 34.5%. These results followed the same general response pattern as was evidenced in perceptions about regionalized education services and indicated that service and performance, followed by financial considerations, far outweighed the importance of participation and understanding of sharing rules as they related to creating effective services.

Table 4

Perceptions of Service Attributes that Contribute to Effective BOCES Services

	Not important		Somewhat important		Important		Very important	
Service attribute	*n*	%	*n*	%	*n*	%	*n*	%
Service & Performance								
Service fits district's needs	0	0.0%	2	0.8%	56	22.0%	197	77.3%
Quality of service	0	0.0%	3	1.2%	58	22.7%	193	75.7%
Expertise of staff	0	0.0%	4	1.6%	82	32.3%	167	65.7%
Quality of interaction with staff	0	0.0%	18	7.1%	113	44.7%	123	48.6%
Rules & Regulations								
Participant input	0	0.0%	26	10.2%	120	47.1%	109	42.7%
Clarity of participation rules	2	0.8%	29	11.5%	124	49.2%	97	38.5%
Financial considerations								
Reduction of costs	0	0.0%	11	4.3%	72	28.3%	172	67.7%
Monetary incentive to participate	4	1.6%	19	7.5%	69	27.2%	162	63.8%

Overall perceptions of BOCES. This section seeks to understand the overall positive or negative perception about the effectiveness of BOCES. Respondents were asked about their perception from this broad perspective, using a four-point Likert scale ranging from very negative (1) to very positive (4).

Survey questions 10 and 11 (see Appendix E), sought to address the overall perceptions of the effectiveness of BOCES as an organization designed to deliver shared services. Superintendents were asked to rate their overall perceptions about the cost of BOCES services, the quality of BOCES services, the quality of interaction with BOCES staff, the expertise of

BOCES staff, the processes in place for participation, the clarity of sharing rules, BOCES aid as an inducement for participation, and if BOCES services met district needs. These attributes were subdivided into service and performance, rules and regulations, and financial consideration. Table 5 shows these groupings and also illustrates the frequency of responses to the overall effectiveness of BOCES, as well as for the eight selected service attributes about BOCES.

Superintendents viewed the overall effectiveness of BOCES as somewhat positive almost 58% of the time and very positive nearly 33% of the time. The statistics indicated a positive overall perception of the effectiveness BOCES as organizations designed to provide regionalized education services.

Table 5 shows that three of the eight service attributes which received the most amount of frequent responses for not important or somewhat important, from the perception of the superintendent, were: cost of services (35.6%), BOCES aid as an inducement for participation (19.8%), and clarity of sharing rules (15.5%). Mean scores for the same three attributes, were 2.66, 3.08, and 2.97 respectively (see Table 6).

Table 5

Perceptions of Overall Effectiveness of BOCES and Selected Service Attributes

	Not important		Somewhat important		Important		Very important	
Service attribute	*n*	%	*n*	%	*n*	%	*n*	%
Overall effectiveness								
Overall organizational effectiveness	5	2.0%	19	7.6%	145	57.8%	82	32.7%
Service & Performance								
Quality of interaction with staff	1	0.4%	23	9.0%	151	59.2%	80	31.4%
Expertise of staff	2	0.8%	37	14.5%	164	64.3%	52	20.4%
Quality of services	6	2.4%	30	11.8%	168	66.1%	50	19.7%
Services meet district needs	6	2.4%	28	11.0%	166	65.1%	50	19.6%
Rules & Regulations								
Processes in place for participation	1	0.4%	23	9.0%	187	73.3%	44	17.3%
Clarity of sharing rules	3	1.2%	36	14.3%	179	71.0%	34	13.5%

Financial considerations								
Cost of services	12	4.7%	78	30.8%	148	58.5%	15	5.9%
BOCES aid as an inducement for participation	7	2.8%	43	17.0%	127	50.2%	76	30.0%

Service and performance appear to be most important to superintendents, followed by financial considerations and rules and regulations, based on frequencies of response and mean analysis. Individual service attributes receiving the most responses for important or very important fell within the service and performance group. They were quality of interaction with staff at 90.6%, processes in place for participation at 90.6%, and quality of services at 85.8%.

A multiple regression analysis was conducted to evaluate the extent to which the eight service variables contributed to the perception of BOCES as effective organizations. The test was used to understand the extent to which each independent variable contributed to the perception of overall effectiveness. The dependent variable in this specific regression test was "overall effectiveness of BOCES as organizations designed to provide effective regionalized education services." Eight independent variables are presented in Table 6 under service and performance, rules and regulations, and financial considerations.

Table 6

Mean Scores: Perceptions of Overall Effectiveness of BOCES and Selected Service Attributes

Service attribute	*n*	*M*	*SD*
Overall effectiveness			
Overall organizational effectiveness	251	3.21	.663
Service & Performance			
Quality of interaction with staff	255	3.22	.612
Expertise of staff	255	3.04	.616
Quality of services	254	3.03	.640
Services meet district needs	255	3.02	.649

Rules & Regulations			
Processes in place for participation	255	3.07	.523
Clarity of sharing rules	252	2.97	.571
Financial considerations			
BOCES Aid formula as inducement for participation	253	3.08	.760
Cost of services	253	2.66	.664

The overall regression test (see Appendix H, Table 29) revealed that the regression model, which included all eight service attributes, was significantly related to the overall perceptions of the effectiveness of BOCES. The multiple correlation coefficient was .748. The R^2 value was .560. This indicated that 56% of the variance in perceptions about the effectiveness of BOCES as organizations designed to offer regionalized education services was accounted for by service attributes related to service and performance, rules and regulations, and financial considerations. A deeper analysis of the standardized beta coefficients of the independent variables revealed three specific service attributes were most significant in their contribution toward overall perception of BOCES effectiveness. They were quality of services, service meets district needs, and cost of services. Two of the variables fall in the service and performance group: quality of services and service meets district needs. The standardized beta coefficients indicated that 27% percent of the influence was related to the quality of services and that almost 23% came from the attribute service meets district needs. In summation, approximately 50% of the influence of these attributes to the positive perception of BOCES came from attributes related to service and performance.

The third significant variable fell within the financial consideration sub-group and was cost of service. This was an indicator that approximately 16% of the influence was attributable to how much the service costs. Also notable was the low standardized beta coefficient and high p value associated with expertise of staff (b^* = .033, p = .632) and quality of interaction with

staff (b^* = .078, p = .226). These two data points were an indicator that these variables had a statistically insignificant linear relationship associated with the perceptions of the overall effectiveness of BOCES.

The data indicated a strong perception of the effectiveness of BOCES. They further demonstrated that there were several service attributes which contributed to this positive perception and several which were less critical to the effectiveness of BOCES. Clearly service and performance were the most important contributors to perceptions of effectiveness. Financial considerations, particularly the cost of services, were evidenced as significantly important in the perceptions of superintendents.

Perceptions of BOCES leadership attributes. Superintendents were asked about their perceptions regarding the extent or frequency that they believed the central office leadership of their BOCES displayed the following leadership attributes: effectively communicates information related to its fiscal operations, effectively communicates issues related to its services, develops innovative services, develops new services timely, provides effective leadership regarding state and regional issues, operates with a customer service orientation, and understands the needs of its component districts. Table 7 shows the frequencies for the seven leadership attributes.

Table 7

Frequencies: Perceptions of Leadership Attributes Displayed by BOCES

	Never		Occasionally		Frequently		Always	
Leadership attribute	*n*	%	*n*	%	*n*	%	*n*	%
Effectively communicates issues related to its fiscal operations	5	2.1%	59	24.7%	99	41.4%	76	31.8%
Effectively communicates issues related to its services	4	1.7%	52	21.8%	104	43.5%	79	33.1%
Develops innovative services	13	5.4%	83	34.7%	94	39.3%	49	20.5%

Develops new services timely	10	4.2%	73	30.5%	101	42.3%	53	22.2%
Provides effective leadership regarding state and regional issues	9	3.8%	46	19.2%	71	29.7%	113	47.3%
Operates with a customer service orientation	15	6.3%	45	18.8%	94	39.3%	85	35.6%
Understands the needs of its component districts	10	4.3%	54	23.5%	99	43.0%	76	33.0%

The leadership attributes that received the highest percentage of responses for frequently or always displaying the leadership attribute were provides leadership regarding state and regional issues at 77%, effectively communicates issues related to its services at 76.6%, and understands the needs of its component districts at 76.1%. The leadership attributes receiving the lowest percentages of responses to always or frequently were related to the development and deployment of new services. Specifically, the least frequently perceived leadership attributes being displayed were develops innovative services at 59.9% and develops new services timely at 64.4%. The leadership attribute receiving the highest percentage of never responses was the attribute related to operating with a customer service orientation, which received a response rate of 6.3%.

Further analysis was conducted in order to examine the relationships between superintendents' perceptions of the effectiveness of BOCES and superintendents' perceptions of the leadership attributes displayed by the central office leadership in the superintendent's local BOCES. These leadership attributes are displayed in Table 7. A multiple regression analysis was conducted to evaluate the extent to which the seven leadership variables related to the perceptions of BOCES as effective organizations. The dependent variable was "overall effectiveness of BOCES as organizations designed to provide effective regionalized education services." The independent variables were the seven leadership attributes presented in Table 7.

The overall regression test (see Appendix H, Table 30) revealed that the regression model which included the seven leadership attributes was significantly related to the overall perceptions of the effectiveness of BOCES, F (8,224) = 19.389 ($p < .001$). The multiple correlation coefficient was .614. This indicated that almost 38% of the variance in perceptions about the effectiveness of BOCES as organizations designed to offer regionalized education services was accounted for by these leadership attributes.

Analysis of the standardized beta coefficients of the independent variables revealed three specific leadership attributes that were significant in their contribution toward overall perception of BOCES effectiveness. The leadership attributes were: understands the needs of its component districts, develops innovative services, and effectively communicates issues related to its fiscal operations. The standardized beta coefficient indicated that the most influential element, or 21% percent of the relationship, was related to understanding component districts needs, and that almost 20% came from the leadership attribute develops innovative services. The data indicated that understanding district needs and development of innovative services had a statistically significant relationship to perceptions of the effectiveness of BOCES. The data revealed that the most frequent response to always displays leadership was the leadership attribute directed at providing leadership regarding state and regional issues at 47%. However, the regression analysis showed that this attribute was a low predictor in terms of its relationship toward the perception of an effective BOCES ($b^* = .081$, $p = .362$).

Perceptions of individual BOCES programs. Superintendents were asked about their perceptions of individual programs offered by their BOCES. Seven specific programs or service areas that were commonly offered as services across the 37 BOCES in NYS were identified: CTE, SPED, RS, ISD, INSTECH, ADMTECH, and MAS. Each program area had its own

survey question that used a four-point Likert scale. Response options included very negative (1) and somewhat negative (2) to somewhat positive (3) and very positive (4). The eight service attributes were broken down into the three sub groupings: service and performance, rules and regulations, and financial considerations (see Table 8).

Individual mean scores for all of the service attributes in those two programs reflected a range of mean scores from a low of 2.99 to a high mean score of 3.35 for MAS. The range for SPED reflected a low mean score of 2.33 to a high score of 3.05. The three most highly ranked individual mean scores were all within the MAS program area. These individual mean scores, in rank order, were expertise of staff, quality of service from BOCES staff, and quality of interaction with BOCES staff.

Total mean scores across all seven program areas ranged from a high of 25.90 for MAS to a low of 22.82 for SPED. The largest mean score possible was 28. The highest total mean score across all eight service attributes was expertise of staff, which had a total mean score of 22.47 with an average mean score of 3.21. In contrast, the lowest total mean score for the eight service attributes was 19.42 for the cost of service attribute.

Table 8

Means Scores for Perceptions of Service Attributes by BOCES Program

		M by BOCES program						
Service attribute	*M*	CTE	SPED	RS	ISD	INS TECH	ADM TECH	MAS
Service & Performance								
Expertise of staff	22.47	3.20	3.05	3.13	3.25	3.22	3.28	3.35
Quality of service from BOCES staff	22.26	3.29	2.95	3.10	3.23	3.16	3.20	3.34
Quality of interaction w BOCES staff	22.25	3.25	2.94	3.09	3.40	3.16	3.19	3.33
Programs meet district needs	21.58	3.11	2.86	3.01	3.12	3.05	3.15	3.26
Rules & Regulations								
Clarity of sharing rules	21.46	3.12	2.94	2.96	3.17	3.02	3.07	3.18

Participants have adequate input	21.21	2.99	2.82	2.93	3.15	3.04	3.02	3.26
Financial considerations								
Incentive aid as a critical inducement for participation	21.62	3.13	2.94	2.99	3.09	3.12	3.16	3.20
Cost of service	19.42	2.95	2.33	2.53	3.01	2.79	2.80	2.99
Total M by program		25.05	22.82	23.75	25.29	24.56	24.87	25.90

Note. CTE = Career and technical education; SPED = Special education; RS = Related services; ISD = Instructional staff development; INSTECH = Instructional technology; ADMTECH = Administrative technology; MAS = Management and administrative services. *M* for row & column totals are a summation of the means for each respective row or column.

Full details of frequencies and standard deviation by program area and service attribute can be found in Appendix F. Mean totals in the above table are a summation of mean scores for each service attribute or program. The results of frequencies and mean responses for each program follow.

Career and technical education (CTE). CTE programs consist of vocational and occupational education programs. Examples include traditional vocational programs, such as automotive mechanics, building trades, and culinary arts, and newer offerings ranging from theater arts and engineering to aviation mechanics. The overall mean score for CTE was 25.05, which ranked as the third highest viewed program of the seven. Superintendents ranked quality of service from BOCES staff (3.29), quality of interaction with BOCES staff (3.25), and expertise of staff (3.20) as the highest viewed service attributes associated with CTE programs. Superintendents responded either positively or very positively nearly 92% of the time for the three service attributes. The lowest viewed attributes for CTE were cost of service and participant input with mean scores of 2.95 and 2.99 respectively. Superintendents responded somewhat negatively or very negatively approximately 20% of the time for these two lowest viewed service attributes. In addition, the highest mean scores and frequencies were attributable to service attributes that fall within the service and performance category.

Special education (SPED). SPED instructional services include instructional programs for student with disabilities. These include programs that are located at BOCES building sites, as well as BOCES programs that are housed with rented classrooms at component school districts. SPED instruction represents the second substantial instructional program offered by the BOCES. The overall mean score for SPED was 22.82, which was lowest total among the seven program areas. Mean scores were consistently among the lowest for this program across all service attributes. Superintendents ranked expertise of staff and quality of service from BOCES staff as the most positive service attributes associated within the SPED program area. All other remaining service attributes had a mean score under 2.95. Within SPED programs, superintendents viewed expertise of staff positively or very positively 84.5% of the time. Superintendents viewed the quality of service attribute positively or very positively nearly 72% of the time. The most negatively viewed attributes were cost of service and participant input, with mean scores of 2.33 and 2.82 respectively, for the SPED service area. For these two service attributes, superintendents responded somewhat negatively or very negatively approximately 40% of the time.

Related services (RS). RS are programs that most often support SPED instruction and are targeted at the needs of students based on their individualized education plans. These services include occupational therapy, physical therapy, speech services, social worker support, and psychological counseling. Services are delivered in individual sessions to specific students or in group sessions, depending upon need. They are delivered in support of BOCES run programs and are also offered in an itinerant model to school districts. The overall mean score for RS was 23.75, which was the second lowest score among the seven programs. Superintendents ranked expertise of staff, quality of service from BOCES staff, and quality of

interaction with BOCES staff as the highest service attributes associated with RS programs. All other remaining service attributes had a mean score under 3.01. Each of the three most positively viewed attributes for RS received a positive or very positive response at least 89% of the time. Service attributes most often viewed negatively fell within the rules and regulations and financial considerations categories. Superintendents responded somewhat negatively or very negatively approximately 50% of the time for the cost of service attribute and just under 20% of the time for the clarity of sharing rules attribute.

Instructional staff development (ISD). ISD programs support the instructional goals and needs of schools, most of which are focused on improving instruction to students through professional development. For example, a current focus of programs offered by BOCES include: guidance on annual professional performance requirements (APPR), Race to the Top (RTTT) initiatives, and support of what is known as common core curriculum.

The overall mean score for ISD was 25.29, which was the third most highly viewed program of the seven. Across all eight service attributes, individual mean scores were above 3.0. Superintendents ranked expertise of staff, quality of service from BOCES staff, and quality of interaction with BOCES staff as the most positive service attributes associated ISD programs. All other remaining service attributes had a mean score ranging from a low of 3.01 to a high of 3.17. Superintendents responded either positively or very positively to attributes related to expertise of staff nearly 81% of the time, quality of interaction with staff 86% of the time, and quality of service from BOCES staff nearly 88% of the time.

Service attributes within this program area that received the lowest mean scores were cost of service and incentive aid as a critical inducement for participation, with mean scores of 3.01 and 3.09 respectively. Superintendents responded somewhat negatively or very negatively

approximately 25% of the time for the cost of service attribute and just over 20% of the time for incentive aid as a critical inducement for participation attribute. Although cost of service was the lowest scoring attribute, ranked by mean score, it received a higher score in comparison to SPED and RS for the same attribute. The pattern was consistent that the most highly viewed attributes were those where scores for service and performance attributes consistently received the highest scores. Additionally, this was the only occurrence that incentive aid as a critical inducement for participation received the lowest mean score for any of the seven program areas. As with CTE, SPED, and RS programs, attributes associated with staff and service quality were consistently viewed as the most highly of the seven service attributes.

Instructional technology (INSTECH). INSTECH programs are services that encompass computer technology as a central component or theme in the delivery of the program. These include distance learning; inclusion of technology into instruction, also known as Model Schools; and online credit recovery programs.

The overall mean score for INSTECH programs was 24.56, which ranked it the fourth most highly viewed program of the seven. The three highest ranked individual service attributes based on mean scores fell within the service and performance category and were the same three areas reflected as highest in the programs discussed thus far. They were expertise of staff, quality of interaction with BOCES staff, and quality of service from BOCES staff. Mean scores were 2.79 and 3.02 respectively for cost of service attributes and clarity of sharing rules. Nearly 33% of the time superintendents responded negatively or very negatively to the cost of services. Clarity of sharing rules received negative responses approximately 18% of the time. There was a similar negative response rate of 20% for participant input.

Administrative technology (ADMTECH). ADMTECH services in this study were those services that were delivered within the RIC structure across the BOCES. There are 12 RICs across the state. Each of the 12 RICs is located in one of the 37 BOCES supervisory districts and services a predetermined multi-BOCES area. Examples of technology system services provided by the RIC include wide area networks, local area networks, student data systems, financial software support, and student testing collection for the state education department.

The overall mean score for perceptions of ADMTECH was 24.87. The three highest individual service attribute scores were all related to quality of staff. Expertise of staff received a mean score of 3.28, followed by quality of service by BOCES staff at 3.20 and quality of interaction with BOCES staff at 3.19. All of these attributes fell within the service and performance category. The most frequently viewed negative perceptions were reflected in the cost of service attribute and in the clarity of sharing rules attribute, which is in the financial considerations group.

Management and administrative services (MAS). These are essentially the operational and business related functions pertinent to school operations. These include services such as shared business office operations, actuarial services, labor relations, public relations, and risk management.

MAS programs received the highest overall mean score of all seven programs, reflecting a mean score of 25.90. All but one individual attribute received a mean score above 3.0. Individually, service attribute mean scores ranged from a high of 3.35 to a low of 2.99. MAS received the highest mean score for each of the eight service attributes when compared against all of the other program areas. Attributes within the service and performance category were all viewed more highly than those in any of the other two categories.

In sum, the data showed that MAS, ISD, and CTE were the most highly viewed programs. SPED and RS were the lowest viewed programs.

Perceptions by service attribute. This subsection will present data about perceptions according to service attributes. Perceptions about these services were organized within three major categorical groupings: service and performance, rules and regulations, and financial considerations. Table 8 shows the mean scores for each of the eight service attributes. Attributes were scored and ranked by total mean score within the three categories. Scores were determined by frequency of responses related to a four-point Likert scale ranging from very negative (1) to very positive (4). The higher the mean score the more frequently respondents perceived the attribute more positively.

The three most highly ranked service attributes across the three categories were expertise of staff, quality of service from BOCES staff, and quality of interaction with BOCES staff. Each of these three specific service attributes fell within the service and performance category. The perceived service attributes included cost of service, which received the lowest ranking with a mean score of 19.42. Second lowest was processes in place for participation, which had a mean score of 21.21. Cost of services scored lowest in every single program. Incentive aid as an inducement for participation in BOCES services received an overall mean score of 21.62, which placed it in the middle of all service attributes. The data indicated a consistent frequency of response in two areas. The category of service and performance, and its four attributes, were most frequently viewed as being important or very important in the perceptions of superintendents about the effectiveness of BOCES programs, as they consistently received the highest mean scores. The most frequently viewed negative perception across all programs and

service attributes was cost of service, as this attribute consistently received the lowest mean score across all programs and attributes.

Changing perceptions resulting from the recent economic recession. The survey instrument asked superintendents if the recent economic recession had an impact on their perceptions related to shared services. Superintendents were asked to rank the degree of change in their perceptions about several common shared service arrangements. These included consortia, inter-municipal agreements, BOCES, district-to-district shared services, and regionalized education services in general. Response options were structured using a four-point Likert scale using the choices: no change (1), minimal change (2), moderate change (3), or substantial change (4).

Table 9 summarizes the frequency of responses into two groupings: (1) no change and minimal change and (2) moderate and substantial change. Responses indicated that the economic recession had changed superintendents' perceptions of shared service arrangements, either moderately or substantially at least 61% of the time. The highest frequency of response reflecting moderate or substantial change was for the category of district-to-district collaborations (76.3%). The lowest frequency of response for moderate to substantial change was in the BOCES services category, which had a response rate of just over 61%. The average mean score related to changing perceptions of shared services arrangements also followed the same trend as the frequencies. The average mean score for all groupings of shared services was 2.82. The highest was district-to-district shared services at 3.09, and the lowest was BOCES with a mean score of 2.69. It is important to note that this question did not address the degree of superintendent favorability or preference for shared service arrangements, only that their perceptions about them changed.

Table 9

Extent of Economic Recession on Perceptions of the Viability of Shared Services

Type of shared service	No or minimal change		Moderate or substantial change				
	n	%	*n*	%	*M*	*SD*	*N*
District-to-district collaborations	73	28.9%	181	71.5%	3.09	0.912	253
Regionalized educational services in general	98	38.6%	155	61.0%	2.93	0.919	254
Inter-municipal agreements with other units of government	90	35.6%	163	64.4%	2.77	0.919	253
Consortia	90	35.6%	163	64.4%	2.73	0.895	253
BOCES	60	23.7%	193	76.3%	2.69	0.886	253
Total Mean Score					14.21		

Perceptions of superintendents based on prior experience with BOCES. This question sought to understand what relationships, if any, existed between a superintendent's experience in working with BOCES prior to being a superintendent and his or her current perceptions as a superintendent. In addition to investigating the relationship of prior experience and perception, the study also asked about the quality of that relationship. Degree of impact was structured based on frequency using the categories: never, occasionally, frequently, or always. Quality of experience was evaluated from a negative or positive relationship perspective. Results are displayed in Table 10.

The responses showed that 38% indicated that prior experience with BOCES had an occasional impact on current perceptions of BOCES. Another one-third (33.3%) indicated that their pre-superintendent experience with BOCES frequently had an impact on current perception of BOCES. Thirty-two of the 255 (12.5%) respondents indicated that prior experience always impacted current perceptions of BOCES. Only 16% responded that it had never impacted their current perception of BOCES.

Table 10

Frequencies: Pre-Superintendent interactions with BOCES

Interaction	Never		Occasionally		Frequently		Always	
	n	%	*n*	%	*n*	%	*n*	%
Pre-superintendent experience with BOCES and the impact on current perception of BOCES	41	16.1%	97	38.0%	85	33.3%	32	12.5%
	Very negative		Negative		Positive		Very positive	
	n	%	*n*	%	*n*	%	*n*	%
Quality of experience with BOCES prior to being a superintendent	0	0.0%	18	7.2%	185	73.7%	48	19.1%

Superintendents were also asked about the quality of their relationship with BOCES prior to being a superintendent. Responding superintendents indicated 93% of the time that they had a positive relationship or experience with BOCES prior to being a superintendent (see Table 10). It is important to note that these questions did not provide data or answers relating to the impact or extent to which the existence of a positive or negative pre-superintendent experience with BOCES was related to decisions to use BOCES services.

Research Question #2: What factors influence a superintendent's decision to use or not use BOCES services?

Factors influencing superintendent decisions to use or not use BOCES services.

Research question two sought to understand what factors may or may not have influenced a superintendent's decision to utilize services provided by a BOCES. Eleven variables were sub grouped into four categories. The four categories were service and performance, rules and regulations, financial considerations, and operational conditions or circumstances. The first three categories were the same attributes used earlier in this section. The fourth category, operational conditions, was newly introduced in the analyses and refers to circumstances within the superintendent's district that may have been factors or circumstances that impact decisions to use

BOCES services. Superintendents were asked about the importance of certain service attributes associated with BOCES services as they related to decisions to use BOCES. These were the same attributes previously used to capture data about superintendent perceptions. In this section, they were used to capture data related to decisions to use BOCES services. The operational conditions category consists of four items that related to circumstances that the superintendent may have faced when making decisions to utilize services provided by BOCES. The 11 variables and four categories are presented in Table 11. Superintendents were asked to what degree the items impacted their decisions to use BOCES services. All of the survey questions related to these variables utilized a four-item Likert scale ranging from never (1) or not at all (2) to always (3) or fully (4).

Decision making and service attributes. Table 11 shows the degree to which certain factors impacted superintendent decisions to use BOCES services and indicates the frequency and mean responses. All 11 variables were ranked by their mean scores. A higher mean score indicated a greater the degree or frequency that the attributes had an impact on a superintendent's decision to use BOCES services.

The mean scores ranged from a high of 3.50, for quality of interaction with staff and service meets district needs, to a low of 2.81, for the service attribute related to the clarity of sharing rules. Cost of service also ranked very highly with a mean score of 3.35. The least impactful service attributes, in terms of mean scores, were clarity of sharing rules and processes in place for participation. Both mean scores for these two attributes were well below the average mean of all attributes (3.23). Superintendents indicated at least 88% of the time that these attributes frequently or always had an impact on their decisions when deciding to use or not to use BOCES services.

Table 11

Degree to Which Certain Factors Impact Superintendent Decisions to Use BOCES Services

	Never or occasionally		Frequently or always				
Service attribute	*n*	%	*n*	%	*M*	*SD*	*N*
Service & Performance							
Quality of interaction with staff	24	10.2%	212	90.2%	3.50	.616	235
Services meet district's needs	13	5.6%	222	94.9%	3.50	.616	234
Expertise of staff	29	12.3%	207	87.7%	3.32	.644	236
Quality of services	21	8.9%	215	91.1%	3.17	.637	236
Rules & Regulations							
Processes in place for participation	57	24.2%	179	75.8%	2.91	.712	236
Clarity of sharing rules	69	29.4%	166	70.6%	2.81	.709	235
Financial considerations							
Cost of service	37	15.7%	198	83.9%	3.35	.670	236
BOCES aid as inducement for participation	15	6.4%	219	93.2%	3.30	.772	235
Operational conditions/circumstances							
Potential reduction of my district's personnel	131	56.2%	102	43.8%	3.00	.692	233
Elimination of BOCES aid	50	21.3%	185	78.7%	2.67	.840	235
Experience prior to being a superintendent	108	46.4%	125	53.6%	2.34	.915	233

Decision making and district operational conditions. This component of the research study considered what other conditions or circumstances may have had an impact on decisions to use BOCES services. The three operational conditions or circumstances included reduction of district personnel, elimination of BOCES aid, and superintendent's experience with BOCES prior to becoming a superintendent.

Mean scores for the three operational conditions ranged from a high of 3.0 to a low of 2.34. The highest mean score possible was 4, and the lowest possible mean score was 1. In comparison to the mean scores and frequencies of response for the most frequently influential

service attributes, district operational considerations received lower mean scores in comparison to the service attributes. The condition with the highest mean score of 3.0 was the potential reduction of staff in the superintendent's district. The second highest mean score was for the potential reduction or loss of BOCES aid, which received a mean score of 2.67. Aid as an inducement for participation received a mean score of 3.30 for its influence or impact on decision making. The third item in this category was superintendent's experience. Superintendents were asked if they thought that their experience with BOCES prior to being a superintendent affected their decisions to use BOCES services in their current position as a superintendent. Responses were nearly split 50-50 between having an occasional or no influence (46.4%,) on decision making and frequently or always having an influence (53.6%,) on decision making.

Decision making and future use of BOCES services. Programs were categorized into the following service areas: CTE, SPED, RS, ISD, INSTECH, ADMTECH, and MAS. Responses were structured using a four-point Likert scale as follows: not at all (1), minimal (2), substantially (3), or a great deal (4). These results are presented in Table 12.

Table 12

Frequencies: Decision Making and Future Use of BOCES Services

	Never		Occasionally		Frequently		Always	
Programs and services	*n*	%	*n*	%	*n*	%	*n*	%
Career and technical education	8	3.4%	19	8.1%	100	42.6%	108	46.0%
Special education	7	3.0%	55	23.3%	95	40.3%	79	33.5%
Instructional technology	2	1.0%	24	11.8%	116	57.1%	61	30.0%
Administrative technology	3	1.4%	35	16.4%	111	52.1%	64	30.0%
Management and administrative services	0	0.0%	79	33.6%	93	39.6%	63	26.8%
Instructional staff development	3	1.3%	54	23.1%	116	49.6%	61	26.1%
Related services	6	3.0%	42	21.2%	108	54.5%	42	21.2%

The two most likely programs to be purchased based on the superintendent's perception that the service met districts needs were CTE and INSTECH. Each had a response rate of over 85%, indicating superintendents would purchase the service either frequently of always because the service was effective in meeting district needs. The data were also analyzed in terms of mean score responses. A mean score of 3.0 or higher indicated that the service would be utilized frequently or always because it was effective in meeting district needs. A mean score of less than 3.0 meant that the service would be utilized less than occasionally. The two programs receiving the lowest mean scores were RS (2.94) and MAS (2.93). MAS received the most responses from superintendents, indicating they would never or only occasionally purchase these services based on the perception that they met district needs. The response rate for MAS was nearly 34% in this instance. MAS also received the lowest mean score (2.93) amongst all seven programs for this same question (see Table 13).

Table 13

Mean Scores: Decision Making and Future Use of BOCES Services

Programs and services	*n*	*M*	*SD*
Career and technical education	235	3.31	.76
Instructional technology	203	3.16	.66
Administrative technology	213	3.11	.72
Special education	236	3.04	.83
Instructional staff development	234	3.00	.74
Related services	198	2.94	.74
Management and administrative services	235	2.93	.78

Data in regard to mean scores, as shown in Table 13, indicated that superintendents would frequently utilize BOCES programs in five of the seven program areas because they met

district needs. This was because the five programs received a mean response of at least 3.0. These services included CTE, INSTECH, ADMTECH, SPED, and ISD.

Research Question #3: Is there a relationship between a superintendent's decision to use BOCES services and the view of BOCES as a strategic partner in helping solve the district's operational and educational challenges?

BOCES' role as a strategic partner in helping districts solve operational and educational challenges.

Descriptive and inferential statistics were utilized to investigate the relationships that existed in the data collected for this research question. Inferential statistical methods used included chi-square, cross tabulation, and multiple regression. Chi-square was used to test for strength of association between the view of BOCES as a strategic partner and decisions to use BOCES services. The cross tabulation and chi-square tests compared survey question 28 to survey questions 23 through 27 (see Appendix E). Multiple linear regression analyses were used to test the relative contribution of independent variables to superintendents' perceptions of BOCES as a strategic partner. Independent variables included the eight service attributes and the seven leadership attributes. Additionally, regression analysis was used to analyze superintendents' perceptions about overall BOCES effectiveness and their view of BOCES as a strategic partner.

The presentation of data for this research question is broken down into three sections. The first part of the analysis looked at the question about strategic partner from 11 different decision variables. The 11 variables were subdivided into four groupings of like constructs. In other words, attributes that were similar in theme but that described different aspects of the construct or theme were grouped together. The groupings were service and performance, rules

and regulations, financial considerations, and district operational conditions. These groupings were also used for research question two.

Part two of the analysis for this research question considered the strategic partner concept from the perspective of future decisions to purchase BOCES services by program. Superintendents were asked what programs they were most likely to purchase in the future, based on their perceptions of the effectiveness of the program in meeting district needs. The responses from this question were compared against the responses of the view of BOCES as a strategic partner. The purpose was to see what relationships existed between the view of BOCES as strategic partner and what programs superintendents may purchase in the future.

Part three of the analysis for this question utilized multiple regression analysis to determine the overall fit and impact of independent variables on superintendents' views of BOCES as a strategic partner. The dependent variable was BOCES as a strategic partner, and the independent variables were service attributes, leadership attributes, and overall organizational effectiveness.

BOCES as a strategic partner. Table 14 indicates that 45.9% of responding superintendents frequently viewed BOCES as a strategic partner, and another 29.2% always viewed BOCES as a strategic partner. Nearly 75% of the responding superintendents frequently or always viewed BOCES as a strategic partner in helping solve their districts' educational and

Table 14

Frequencies: BOCES as a Strategic Partner

	Never		Occasionally		Frequently		Always	
Interaction	*n*	%	*n*	%	*n*	%	*n*	%
As a strategic partner?	10	4.3%	48	20.6%	107	45.9%	68	29.2%

operational challenges. Only 4.3% indicated that BOCES was never considered as a strategic partner in helping solve their districts' educational and operational challenges

Strategic partnerships and decision variables. A cross tabulation and chi-square analyses were conducted to determine if there were any statistically significant differences between observed and expected frequencies (Vogt & Johnson, 2011). In this instance, significance was measured by $p < .05$. A two-tailed chi-square test was utilized to analyze what relationships existed between the 11 decision variables and the frequency to which superintendents viewed BOCES as a strategic partner (see Table 15).

Table 15

Relationships Between Decision Variables and BOCES as a Strategic Partner

Decision variable	$\chi 2$	*df*	*p*
Service & performance			
Quality of interaction with staff	17.69	9	0.039
Quality of services	25.59	9	0.002
Expertise of staff	25.76	9	0.002
Services meet district's needs	33.46	6	0.000
Rules & regulations			
Processes in place for participation	22.72	9	0.007
Clarity of rules	26.96	9	0.001
Financial considerations			
Cost of service	19.40	9	0.022
BOCES aid as an inducement for participation	11.34	9	0.253
District operational considerations			
Experience prior to being a superintendent	19.98	9	0.018
Potential reduction of my district's personnel	23.35	9	0.005
Elimination of BOCES aid	26.60	9	0.002

Table 15 shows the obtained chi-square values for the 11 decision variables that were evaluated against superintendents' views of BOCES as a strategic partner. All variables examined but one achieved statistical significance with values less than $p < .05$. Inducement for participation was the one item that was not statistically significant. Significance ranged in strength from $p < .001$, for programs meet district needs, to a low of $p = .253$, for aid as an inducement for participation.

Service and performance. This decision category had four items, which were measured for significance and relationships against the strategic partner variable. The four items in this category focused on the quality of BOCES personnel and performance of staff in meeting district needs. All four service attributes related to service and performance were statistically significant at $p < .05$ level, meaning that the data suggested a strong relationship between a superintendents view of BOCES as a strategic partner, decisions to use BOCES services, and the four service and performance attributes. The most statistically significant decision variable in this category was services meet district's needs ($\chi^2 = 33.456$, $p < .001$). The least significant decision variable was quality of interaction with staff ($\chi^2 = 17.69$, $p = .039$).

Superintendents responded in 75.3% of the instances that they frequently or always viewed BOCES as a strategic partner for the attribute services meet district needs (see Appendix I, Table 34). This group also indicated that 73.6% of the time meeting the needs of the district was frequently or always a factor in decisions to use BOCES services. In addition, superintendents indicated that they viewed BOCES as a strategic partner only occasionally or never 24.6% of the time. This group of superintendents indicated that meeting district needs was a factor in their decision making 80.7% of the time when they were making decision to use BOCES services. Cross tabulation data in this section are supported by Appendix I, Table 34.

The next most statistically significant decision variable was expertise of staff (p = .002), which fell within the service and performance category. Superintendents responded in 75.1% of the instances that they frequently or always viewed BOCES as a strategic partner (see Appendix I, Table 34). This group also indicated that 71.2% of the time expertise of BOCES staff was frequently or always a factor in decisions to use BOCES services. In addition, superintendents also indicated that they viewed BOCES as a strategic partner only occasionally or never 24.6% of the time. For this category of superintendents, expertise of BOCES staff was a factor in their decision making in 79.3% of the instances when they were making decision to use BOCES services. This was a strong indicator of the importance of the expertise of staff, regardless of the superintendent's view of BOCES as a strategic partner.

The third decision variable within the service and performance category that achieved statistical significance in the chi-square analysis was quality of services (p = .002). Quality of services refers to the perceived value or performance in the execution of BOCES services. Superintendents responded 75.4% of the time that they frequently or always viewed BOCES as a strategic partner. This group of superintendents also indicated that 96.6% of the time the quality of services was frequently or always a factor in decisions to use BOCES services. In addition, the percentage of superintendents who indicated that they viewed BOCES as a strategic partner only occasionally or never was 24.6%. This sub group of superintendents indicated that the quality of services was a factor in their decision making 87.8% of the time when they were making decisions to use BOCES services.

The fourth decision variable within the service and performance group that also achieved statistical significance in the chi-square analysis was quality of interaction with staff (p = .039). Quality of interaction with staff refers to the perceived degree of worth related to interpersonal

relationships of staff in performance of the service. In other words, the attribute was a reflection of the superintendent's view of the relationship with BOCES in the execution of the service. Superintendents responded 75.1% of the time that they frequently or always viewed BOCES as a strategic partner. This group also indicated that 68.2% of the time the quality of interaction with staff was frequently or always a factor in decisions to use BOCES services. The percentage of superintendents who indicated that they viewed BOCES as a strategic partner only occasionally or never was 24.9%. This sub group indicated that the quality of interaction with staff was a factor in their decision making 77.6% of the time when they were making decisions to use BOCES services.

In summary, the data indicated that all of the defined service and performance variables were important components in the decision making process of the superintendents, regardless of superintendents' views of BOCES as a strategic partner.

Rules and regulations. Rules and regulations refer to guidelines related to participation in shared services and the degree of participation that districts have in regard to delivery of services. The two decision variables in the rules and regulation category achieved significance at $p < .05$, indicating a statistically significant relationship between a superintendent's view of BOCES as a strategic partner and these two variables.

The greatest statistical significance in this category, according to the chi-square analysis, was clarity of sharing rules related to participation ($p = .001$). Clarity of sharing rules refers to the perceived ease and clarity in which guidelines for sharing requirements are understood for the service. These include state regulations, BOCES rules, and individual service criteria. Superintendents responded 75.4% of the time that they frequently or always viewed BOCES as a strategic partner. Superintendents in this group indicated that 57.8% of the time the clarity of

sharing rules related to participation was frequently or always a factor in decisions to use BOCES services. The percentage of superintendents who indicated that they viewed BOCES as a strategic partner only occasionally or never was 24.6%. This sub group of superintendents indicated that the clarity of sharing rules was a factor in their decision making 50.0% of the time when they were making decisions to use BOCES services.

The second variable in this category, which also reflected statistical significance based on the chi-square analysis, was adequacy of participant input ($\chi^2 = 22.72$, $p = .007$). Adequacy of participant input refers to the level or degree of involvement in decisions related to critical components of the service. These include service delivery elements, staffing, and pricing options. Superintendents responded 75.1% of the time that they frequently or always viewed BOCES as a strategic partner. Survey responses also indicated that 59.7% of the time adequacy of participant input was frequently or always a factor in decisions to use BOCES services for this sub group. In addition, the percentage of superintendents who indicated that they viewed BOCES as a strategic partner only occasionally or never was 24.9%. This sub group of superintendents indicated that adequacy of input was a factor in their decision making 63.8% of the time when they are making decisions to use BOCES services.

Financial considerations. The financial considerations category focused on two components related to cost. The first consideration was the cost of the service, which is how much the BOCES charges for the service. The second component relates to how much BOCES incentive aid impacts decisions to uses BOCES services. The cost of service variable was found to be significant at the $p = .022$ level. This indicated that there was a strong relationship between the cost of a BOCES service and the decision to use that service. In contrast, aid as an inducement for participation in BOCES services was not found to have a level of statistical

significance. Aid was the only variable of the 11 decision variables that did not show a statistical significance in relation to the concept of BOCES as a strategic partnership.

A closer look at cross tabulations for these variables indicated that superintendents responded 75.1% of the time that they frequently or always viewed BOCES as a strategic partner. The survey responses also indicated that 69.5% of the time the cost of the service was frequently or always a factor in decisions to use BOCES services. In addition, the percentage of superintendents that indicated that they viewed BOCES as a strategic partner only occasionally or never was 24.9%. This sub group of superintendents indicated that the cost of the service was a factor in their decision making in 81.0% of the instances when they were making decisions to use BOCES services. Cost appears to reflect a greater influence on decisions nearly 12% more often for those superintendents who did not view BOCES as a strategic partner. The frequency of impact of BOCES aid on decision making was about the same regardless of the superintendent's view of BOCES as a strategic partner. The survey response data indicated that just over 75% of the time BOCES aid was either frequently or always a factor in decisions to use BOCES services.

District operational conditions. This category of decision variables included certain district level conditions or circumstances that were believed to be associated with a superintendent's decisions to use BOCES services. The variables were analyzed in the context of perceptions about BOCES as a strategic partner. All three conditions in this category represented very different situations for the superintendent, yet the data showed a statistically significant relationship between all three variables and the view of BOCES as a strategic partner. The most significant item was related to the superintendent's experience with BOCES prior to being a superintendent ($p = .018$).

The decision variable within the district operational conditions category that achieved the greatest statistical significance in the chi-square analysis was the superintendent's experience with BOCES prior to being a superintendent (p = .018). Superintendents responded in 74.8% of the instances that they frequently or always viewed BOCES as a strategic partner (see Appendix I, Table 34). They also indicated that 33% of the time their experience was frequently or always a factor in decisions to use BOCES services or, stated in conversely, that it was not a factor 67% of the time. In addition, those superintendents that indicated that they viewed BOCES as a strategic partner occasionally or never (25%) also indicated that their experience with BOCES prior to being a superintendent was a factor in their decision making 43% of the time when they were making decisions to use BOCES services. The data indicated that when superintendents occasionally or never viewed BOCES as a strategic partner, their experience with BOCES prior to being a superintendent had a more frequent influence on their decisions to use BOCES services in slightly more than 10% of those instances.

The second decision variable within the district operational conditions category that achieved the statistical significance in the chi-square analysis was the reduction of district personnel (p = .005). Superintendents responded in 74.8% of the instances that they frequently or always viewed BOCES as a strategic partner. This group also indicated that 44.8% of the time reduction of district personnel was frequently or always a factor in decisions to use BOCES services. In addition, superintendents indicated that they viewed BOCES as a strategic partner occasionally or never 25% of the time. The superintendents in this sub group indicated that the reduction of their district personnel was frequently or always a factor in their decision making in 36.2% of the instances when they were making decisions to use BOCES services. The data indicated that, for those superintendents that frequently or always viewed BOCES as a strategic

partner, reduction of their districts' personnel influenced their decisions to use BOCES services nearly 10% more of the time.

The third decision variable within the district operational conditions category that also achieved statistical significance in the chi-square analysis was the elimination of BOCES aid (p = .002). Superintendents responded that 75% of the time they frequently or always viewed BOCES as a strategic partner. This group indicated that 62.5% of the time the elimination of BOCES aid would substantially or fully impact the amount services their districts would purchase. The results were similar to results from districts that never or only occasionally viewed BOCES as a strategic partner, with 65.5% of the superintendents in this sub group indicating that BOCES purchases would be substantially or fully impacted. The data regarding this decision variable indicated that the potential elimination of aid had a strong impact on superintendent decisions, irrespective of the view of BOCES as a strategic partner.

Strategic partnerships and decisions to use BOCES programs. Part two of the analysis of research question three focused on superintendent perceptions of BOCES as a strategic partner and future decisions to use specific services offered by BOCES. Superintendents were asked to what degree they viewed BOCES as a strategic partner. Response options were constructed on a four-point Likert scale ranging from never (1) to always (4). The data from these responses were compared against data collected in response to answers in which superintendents were asked what BOCES services were they most likely to consider in the future because of the overall effectiveness of the service in meeting district needs. Chi-square and cross tabulation tests were utilized to determine what relationships existed between the two sets of data.

Table 16 shows that statistically significant relationships existed between the superintendent's view of BOCES as a strategic partner and all but one of the program or service areas. Levels of significance are presented in Table 16 and are supported by cross tabulation analysis for each program/service area (see Appendix I, Table 35).

Table 16

Relationships Between BOCES Programs and BOCES as a Strategic Partner

BOCES program	χ^2	*df*	*p*
Instructional staff development	53.593	9	0.000
Management and administrative services	33.544	6	0.000
Special education	26.587	9	0.002
Administrative technology	26.323	9	0.002
Instructional technology	24.048	9	0.004
Related services	22.461	9	0.008
Career and technical education	8.216	9	0.513

The programs exhibiting the strongest statistically significant relationship were ISD ($p < .001$) and MAS ($p < .001$). In terms of strength of statistical significance, these were followed by SPED, ADMTECH, INSTECH, and RS. The data did not show a statistically significant relationship between the perception of BOCES as a strategic partner and future decisions to utilize CTE services from the BOCES.

Instructional staff development (ISD). Superintendents responded 75.4% of the time that they frequently or always viewed BOCES as a strategic partner. This sub group indicated that they would use ISD services in the future based on its effectiveness in meeting district needs. In addition, those superintendents who frequently indicated that they viewed BOCES as a strategic partner also indicated that they would utilize ISD services either frequently or very frequently 74.5% of the time. In contrast, those districts that indicated that they viewed BOCES

as a strategic partner only occasionally or never, 24.6%, indicated that they would purchase ISD services in only 14.7% of the instances.

Management and administrative services (MAS). Superintendents responded 75.4% of the time that they frequently or always viewed BOCES as a strategic partner. Those in this group of responders indicated that that they would purchase MAS either frequently or very frequently 74.2% of the time because the service met district needs. In contrast, the percentage of districts that indicated that they viewed BOCES as a strategic partner only occasionally or never was 24.6%. Superintendents in this group indicated that they would purchase MAS in only 10.8% of the instances.

Special education (SPED). Superintendents responded 75.1% of the time that they frequently or always viewed BOCES as a strategic partner. Those in this group indicated that that they would purchase SPED services either frequently or very frequently 80.6% of the time because the service met district needs. In contrast, the percentage of those districts that indicated that they viewed BOCES as a strategic partner only occasionally or never was 24.9%. Superintendents in this group indicated that they would purchase SPED services in only 12.9% of the instances.

Administrative technology (ADMTECH). Superintendents responded 76.7% of the time that they frequently or always viewed BOCES as a strategic partner. Those in this group of responders indicated that that they would purchase ADMTECH services either frequently or very frequently 85.7% of the time because the service met district needs. In contrast, the percentage of those districts that indicated that they viewed BOCES as a strategic partner only occasionally or never was 23.3%. This group of superintendents indicated that they would purchase ADMTECH services in only 16.2% of the instances.

Instructional technology (INSTECH). Superintendents responded 76.7% of the time that they frequently or always viewed BOCES as a strategic partner. Those in this group of responders indicated that they would purchase INSTECH services either frequently or very frequently 85.7% of the time because the service met district needs. In contrast, those districts that indicated that they viewed BOCES as a strategic partner only occasionally or never, 23.3%, indicated that they would purchase INSTECH services in only 16.2% of the instances.

Related services (RS). Superintendents responded 73.9% of the time that they frequently or always viewed BOCES as a strategic partner. Those in this group of responders indicated that they would purchase RS either frequently or very frequently 60.2% of the time because the service met district needs. In contrast, the percentage of those districts that indicated that they viewed BOCES as a strategic partner only occasionally or never was 25.9%. This group of superintendents indicated that they would purchase RS in only 15.3% of the instances.

The data indicated that there were strong relationships between those districts that viewed BOCES as a strategic partner and their indication that they would purchase certain services from the BOCES based on the effectiveness of the service in meeting district needs. The first two sections of this research question evaluated perceptions of BOCES as a strategic partner in helping districts solve educational and operational challenges.

Service, leadership, and organizational effectiveness: Impact upon views of BOCES as a strategic partner. Part three of the analysis for this research question examined the degree to which service attributes, leadership attributes, and views of BOCES as effective organizations had an impact on perceptions of BOCES as strategic partners. In order to do this, linear multiple regression was used with the dependent variable being strategic partner. Service, leadership, and organizational effectiveness were used as independent variables.

Overall effectiveness and strategic partner relationships. In this regression test, the dependent variable was "to what degree do you view BOCES as a strategic partner in helping your district solve its operational and educational challenges." The independent variable was "my overall perception about the effectiveness of BOCES as organizations designed to deliver regionalized education services." The test was used to understand the effect to which the independent variable contributed to the perception of BOCES as a strategic partner.

The overall regression test (see Appendix H, Table 31) revealed that the model described in the previous paragraph was significantly related to the overall perceptions of BOCES as a strategic partner, $F(1,226) = 86.763$ ($p < .001$). The multiple correlation coefficient was .527. The R^2 value for the test was .277. This indicated that nearly 30% of the perceptions about BOCES as a strategic partner were related to a superintendent's view of BOCES as an organization designed to provide effective regionalized education services to districts. In summation, the data indicated a strong influence on the impact of the independent variable on the dependent variable in this analysis.

Service attribute impact on strategic partner perceptions. The dependent variable in this regression test was "to what degree do you view BOCES as a strategic partner in helping your district solve its operational and educational challenges." The independent variables were those presented in Table 6 categorized under the following subgroups: service and performance, rules and regulations, and financial considerations. There were eight independent variables tested. The test was used to understand the effect to which each independent variable contributed to the perception of BOCES as a strategic partner.

The overall regression test (see Appendix H, Table 32) revealed that the regression model with all of the eight service attributes included was significantly related to the overall perceptions

of BOCES as a strategic partner ($p < .001$). The multiple correlation coefficient was .592. The R^2 value for the test was .350. This indicated that 35% of the perceptions about BOCES as a strategic partner were related to service attributes in the service and performance, rules and regulations, and financial considerations sub groups.

Analysis of the standardized beta coefficients of the independent variables revealed three specific service attributes were the most significant in their contribution toward overall perception of BOCES as a strategic partner. Two were related to service and performance: expertise of staff ($p = .008$) and service meets district needs ($p = .067$). This indicated that 22.4% of the influence was related to the expertise of staff and that 18% came from the attribute service meets district needs. In summation, approximately 40% of the influence came from attributes related to service and performance.

The third most significant variable fell within the financial considerations category and was cost of service ($p < .001$). This was an indicator that approximately 30% of the influence was attributable to how much the service cost. In total, these three attributes accounted for nearly 70% of perceptions about BOCES as a strategic partner. There was also a low standardized beta coefficient and high p value associated with quality of service ($b^* = -.024$, $p = .803$) and quality of interaction with staff ($b^* = .084$, $p = .281$).

Leadership attributes impact on strategic partner perceptions. Further analysis was conducted in order to examine the relationships that may have existed between a superintendent's perception of BOCES as a strategic partner and the impact that certain leadership attributes had on that perception. The specific leadership attributes were displayed in Table 7.

A multiple regression analysis was conducted to evaluate the extent to which the seven leadership variables contributed to the perception of BOCES as a strategic partner. In this specific regression test, the dependent variable was BOCES as a strategic partner in helping districts solve their educational and operational challenges. The independent variables were seven leadership attributes presented in Table 7. The regression test (see Appendix H, Table 33) revealed that the model that included all seven leadership attributes was significantly related to the overall perceptions of BOCES as a strategic partner to school districts ($p < .001$). The multiple correlation coefficient was .589. This indicated that almost 35% of the perceptions about the BOCES as strategic partner were accounted for by these leadership attributes. An analysis of the standardized beta coefficients of the independent variables revealed four specific leadership attributes that were relatively equal in their contribution to the overall perception of BOCES as a strategic partner. They were effectively communicates issues related to its financial condition ($b^* = .198$, $p = .05$), operates with a customer service orientation ($b^*.143$, $p = .182$), develops innovative services ($b^* = .124$, $p = .243$), and develops new services timely ($b^* = .123$, $p = .247$). The cumulative beta coefficients (b^*) for these four attributes, which were significant at the .05 level, indicated that almost 60% of the view of BOCES as a strategic partner was related to these four independent variables. This was an indicator that these variables had an important linear relationship associated with the perceptions of BOCES as a strategic partner.

The data revealed that the most frequent response to always displays leadership was the leadership attribute directed at providing leadership regarding state and regional issues. At 47%, this was one of the lowest scoring independent variables in terms of its contribution toward perceptions of BOCES as a strategic partner (see Table 7). The regression analysis showed another leadership attribute as a very low predictor in terms of its contribution toward the

perception of an effective BOCES. The leadership attribute understands the needs of its component districts ($b^* = .0$, $p = .997$) was the lowest scoring variable.

Research question three focused on numerous factors associated with the perceptions of BOCES as a strategic partner in helping school districts solve educational and operational challenges. The next section presents findings about the perceptions of BOCES and their relationship with selected demographics used in this research study.

Research question #4: Is there a relationship between certain school demographic characteristics and a superintendent's perception of BOCES?

Relationships between school district demographics and superintendent perceptions of BOCES. Demographic variables were grouped into four categories for analysis for purposes of analyzing the data for this research question. The categories were wealth, district size, years of experience, and school district geographic location. These demographic data were compared against superintendents' overall perceptions of the effectiveness of BOCES and overall perceptions of the eight service attributes, which were previously described discussed in this chapter. The eight attributes were categorized into three major categories: service and performance, rules and regulations, and financial considerations.

District wealth and superintendent perceptions of BOCES effectiveness. The purpose of this component of research question four was to investigate what relationships existed between selected wealth related demographic characteristics of the respondent population and their perceptions of BOCES. The researcher chose two commonly used wealth measurements found in NYSED state aid formulas: NRC and CWR.

Superintendents were asked their perceptions about the overall effectiveness of BOCES as an organization designed to deliver regionalized education services. Response options utilized

a four-point scale ranging from very negative (1) to very positive (4). These results were analyzed against wealth related demographic responses using chi-square and cross-tabulation tests. The purpose was to investigate what relationships existed between a district's wealth and the perceptions of the superintendent. The results of the chi-square test are displayed in Table 17. Results of cross tabulation data for this section are provided in Appendix I, Table 36.

Table 17

Relationships Between Effectiveness of BOCES and Need-to-Resource Capacity

Service attribute	$\chi 2$	*df*	*p*
Overall organizational effectiveness			
Overall effectiveness of BOCES	17.457	9	0.042
Service & performance			
Quality of interaction with BOCES staff	7.583	9	0.577
Quality of service from BOCES staff	1.529	9	0.997
Expertise of staff	7.961	9	.538
Services meet district's needs	3.660	9	.932
Rules & regulations			
Participants have adequate input	6.409	9	0.698
Clarity of sharing rules	7.453	9	0.590
Financial considerations			
Cost of service	8.405	9	0.494
Aid as an inducement for participation	31.713	9	0.000

Table 17 shows a strong relationship between a district's NRC and the perception of the superintendent about the overall effectiveness of BOCES. Table 17 also shows a statistically significant relationship between a district's NRC and the superintendent's perception of aid an inducement for participation in BOCES services. A cross tabulation analysis revealed that districts that were classified as high need-rural most frequently viewed the BOCES aid formula

as a very positive inducement for effectiveness 56.6% of the time. In contrast, superintendents in low need districts had the same view only 30% of the time.

The analysis revealed that the greater the need of the district, the more frequently the superintendent viewed BOCES positively: high need-rural at 87.5%, high need-urban at 60.9%, average need at 81.3%, and low need at 53.8%. The chi-square test also revealed that there was nearly no difference between the expected and observed frequencies for two of the service attributes. Quality of service from BOCES staff and program meets district needs both received a *p* value of greater than .9, which means that they were not statistically significant.

Superintendents were also asked to identify their district's CWR. CWRs were grouped in the ranges presented in Table 18. These ranges and grouping descriptions were selected by the researcher because they matched the grouping ranges used in the NRC measurement and thus allowed for consistency in describing a district's relative wealth as high need, average need, low need. The numeric ranges are displayed in Table 18.

Table 18

Frequencies: Combined Wealth Ratios (CWRs)

District wealth classification	*CWR Range*	*N*	%
High need	< .7706	116	57.4%
Average need	.77061-1.188	49	24.3%
Low need	> 1.188	37	18.3%

The data in Table 18 shows that nearly 58% of the responding districts in this study were classified as high need, and approximately 24% were classified as average need. Nearly 82% were either average need or high need. NRC data, which are reflected in Table 1, show that a very similar number of districts that responded to this study were either average need or high need at just over 80%.

A Pearson correlation test was run to see what relationships existed between the eight service attributes and CWR. The test revealed three attributes achieved significance ($p < .05$). The attributes were expertise of staff, clarity of sharing rules, and participants have adequate input. These correlational data are reflected in Table 19 and suggest a moderately significant negative correlation to CWR.

Table 19

Pearson Correlations Between Service Attributes and Combined Wealth Ratio

Service attribute	*r*
Cost of service	- 0.080
Quality of interaction with BOCES staff	- 0.031
Quality of service from BOCES staff	- 0.006
Expertise of staff	- 0.245**
Participants have adequate input	- 0.172*
Clarity of sharing rules	- 0.253**
Aid as an inducement for participation	0.012
Programs meet district's needs	- 0.025

Note. *$p < .01$, two-tailed. **$p < .05$, two-tailed.

Relationship patterns of school size and superintendent perceptions of BOCES effectiveness. Research question four investigated relationships between size of the school district and perceptions of BOCES. The study used two elements that indicated the size of a school district: enrollment and size of the district's budget.

Superintendents were asked their perception about the overall effectiveness of BOCES as organizations designed to deliver regionalized education services. Response options utilized a four-point Likert scale ranging from very negative (1) to very positive (4). Superintendents were also asked to provide similar responses to the eight service attributes previously described. These results were analyzed against responses related to the size demographics. Chi-square and

cross tabulations were used to investigate what relationships existed between a district's size and the perceptions of the superintendents in this study.

The results of the chi-square tests for the size demographic variables are displayed in Table 20. The chi-square tests revealed a statistically significant relationship between only two variables within the size demographics data set. The data showed a significant relationship between district enrollment and the expertise of BOCES staff ($p < .05$). In addition, the data showed a significant relationship between school district budget size and aid as an inducement for participation in BOCES services ($p < .05$).

Table 20

Effectiveness of BOCES by District Size Demographics

	District enrollment			District budget size		
Service attribute	*χ2*	*df*	*p*	*χ2*	*df*	*p*
Overall effectiveness						
Overall effectiveness of BOCES	12.969	12	0.371	17.515	12	0.131
Service & Performance						
Quality of interaction with BOCES staff	8.870	12	0.714	11.141	12	0.517
Quality of service from BOCES staff	6.622	12	0.882	12.692	12	0.392
Expertise of staff	24.552	12	0.017	18.881	12	0.091
Programs meet district's needs	7.566	12	0.818	13.227	12	0.353
Rules & Regulations						
Participants have adequate input	5.939	12	0.919	9.137	12	0.691
Clarity of sharing rules	17.757	12	0.123	17.038	12	0.148
Financial considerations						
Cost of service	14.145	12	0.292	13.483	12	0.335
Aid as an inducement for participation	14.404	12	0.276	23.174	12	0.026

Cross tabulation data for the enrollment demographic and the expertise of staff service and performance attribute suggested a strong relationship and frequency of response, which supported the positive or very positive perception of BOCES at least 81% of the time for superintendents in districts with enrollment of less than 6000 students. Additionally, the data showed that as school district enrollment got larger, the frequency of positive or very positive

responses regarding the expertise of staff decreased from approximately 55% to a low of approximately 2%. Cross tabulation data for the enrollment demographic are supported by Appendix I, Table 37.

There was a statistically significant relationship was between budget size and aid as an inducement for participation. A cross tabulation analysis revealed that there were only very small variations in perceptions by district budget size regarding a district's positive or very positive view of BOCES aid as an inducement for participation. For example schools with budgets between $0 and $25 million responded positively or very positively 79% of the time. In contrast, districts with budgets greater than $76 million responded positively or very positively 79% of the time as well. All other categories based on budget size had a similar frequency of positive or very positive responses to aid as an inducement for participation. Cross tabulation data for the budget size demographic are supported by Appendix I, Table 38.

In terms of the overall perception of the effectiveness of BOCES and district size, cross tabulation analysis revealed the following notable items. Districts with an enrollment of 0-1500 students were significantly more likely to positively (53.8%) or very positively (60%) view BOCES as effective organizations for the delivery of regionalized education services. In comparison, districts that had an enrollment of 6001-9000 (1.2%) or greater than 9000 (2.5%) were much less likely to view BOCES as effective organizations.

The same pattern existed based on budget size. Districts in the smallest budget category, $0-25 million, were much more likely to positively (46.5%) or very positively (56.8%) view BOCES as effective organizations for the delivery of regionalized education services. According to the data, districts with budgets between $76-100 million and over $100 million were likely to respond very positively only 6.2% and 7.4% of the time respectively.

Budget size and aid as an inducement for participation indicated a statistically significant relationship. A cross tabulation analysis revealed that the smaller the school district, the more frequently it had a positive or very positive view of BOCES aid as an inducement for participation. Schools with budgets between $0 and $25 million responded very positively 60% of the time. In contrast, districts with budgets greater than $76 million were only likely to respond very positively 8% of the time. Only 2.8% of total responses were categorized as very negative.

Experience and superintendent perceptions of BOCES effectiveness. The purpose of this component of research question four was to investigate what relationships existed between the work experience of the superintendent and his or her perceptions of BOCES. The study used two interrelated experiential elements. Superintendents were asked how many years they had held the position of superintendent and how many years they had served as superintendent in their current district.

Superintendents were asked their perception about the overall effectiveness of BOCES as organizations designed to deliver regionalized education services. Response options utilized a four-point Likert scale ranging from very negative (1) to very positive (4). Superintendents were also asked to provide similar responses to the eight service attributes previously described. The results of these data were evaluated in conjunction with responses from data related to the experiential demographics. Chi-square and cross tabulations were used to investigate what relationships might have existed between the experience of the superintendent and his or her perceptions of BOCES. The results of the chi-square tests for demographic variables related to experience are displayed in Table 21, and the results of the cross tabulation analyses are represented in Appendix I, Tables 39 and 40. The chi-square test revealed no statistically

significant relationships between overall experience as a superintendent and perceptions regarding the effectiveness of BOCES. However, the chi-square test revealed six statistically significant relationships ($p < .05$) between the service attributes and the superintendent's experience in his or her current district. The data showed a significant relationship between experience as a superintendent and the expertise of BOCES staff ($p = .05$).

Table 21

Effectiveness of BOCES by Superintendent Experience

	Experience as a superintendent			Experience as a superintendent in current district		
Service attribute	χ^2	*df*	*p*	χ^2	*df*	*p*
Overall effectiveness						
Overall effectiveness of BOCES	9.005	12	0.703	28.726	12	0.004
Service & Performance						
Quality of interaction with BOCES staff	11.681	12	0.472	34.767	12	0.001
Quality of service from BOCES staff	15.542	12	0.228	33.041	12	0.001
Expertise of staff	8.503	12	0.745	21.011	12	0.050
Programs meet district's needs	16.375	12	0.175	36.152	12	0.000
Rules & Regulations						
Participants have adequate input	8.519	12	0.743	8.482	12	0.746
Clarity of sharing rules	8.454	12	0.749	10.044	12	0.612
Financial considerations						
Cost of service	18.775	12	0.094	31.024	12	0.002
Aid as an inducement for participation	11.238	12	0.509	5.992	12	0.917

Geographic location and perceptions of overall BOCES effectiveness. This study sought to understand if geographic variations existed in the perceptions of the effectiveness of BOCES. The researcher divided the state into 10 geographic locations by grouping counties into contiguous regions and labeling them according to the general region of the state in which they reside. The geographic regions and counties were described in the survey question for the respondents. Chi-square and cross tabulations were used to examine superintendent responses to geographic location and perceived effectiveness of BOCES. The chi-square test revealed that

there was a statistically significant relationship between the perceived effectiveness of BOCES as an organization designed to provide regionalized education services and the geographic location in which the school district is located ($\chi^2 = 65.733$, $p < .001$) (see Table 22).

Table 22

Relationships Between Geographic Location and Perception of Overall BOCES Effectiveness

	χ2	*df*	*p*
Geographic location	65.7333	27	0.000

Data from the cross tabulation analysis were grouped into two categories for purposes of condensing the information into a simpler format to assist with interpreting the results. Positive and very positive responses were grouped into one category and labeled *positive*. Negative and very negative responses were combined and put into a category called *negative*. Geographic regions were then ranked high to low, based on the percentage of positive responses. These results are displayed in Table 23.

Across all regions of the state, superintendents responded on average just over 90% of the time that they had a positive perception of the effectiveness of their BOCES in fulfilling their mission to provide effective shared services to schools. Five regions had a positive score greater than 90%. In fact, two regions received responses in which all of the superintendents in the geographic local viewed their BOCES positively from this perspective. In rank order, the five most positively viewed geographic regions for effectiveness were: Mid-Hudson Valley (100%), Mohawk Valley (100%), Long Island (96.6%), Capital Region (94.6%), and North Country (93.9%).

Table 23

Superintendent Perceptions of Effectiveness by Region

Geographic region and corresponding counties	Positive		Negative	
	n	%	*n*	%
Mid-Hudson Valley: Dutchess, Orange, Sullivan, & Ulster	12	100%	0	0%
Mohawk Valley: Fulton, Herkimer, Montgomery, Oneida, & Schoharie	21	100%	0	0%
Long Island: Nassau & Suffolk	28	96.6%	1	3.4%
Capital Region: Albany, Columbia, Greene, Rennselaer, Saratoga, Schenectady, Warren, & Washington	37	94.6%	2	5.4%
North Country: Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, & St. Lawrence	31	93.9%	2	6.1%
Western New York: Allegany, Cattaraugus, Chautauqua, Erie, & Niagara	27	90.0%	3	10.0%
Lower Hudson Valley: Putnam, Rockland, & Westchester	17	89.5%	2	10.6%
Southern Tier: Broome, Chemung, Chenango, Delaware, Otsego, Schuyler, Stueben, & Tioga	23	88.5%	3	11.5%
Central New York: Cayuga, Cortland, Madison, Onondaga, & Oswego	19	82.6%	4	17.4%
Finger Lakes: Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, & Yates	7	65.0%	13	35.0%
Averages and totals (*M* and *N*)	222	90.1%	30	9.9%

Comparison of Perceptions and Decisions

The final section of this chapter presents findings related to a comparison of superintendents' perceptions of the eight service attributes with data regarding the impact that the eight service attributes had on superintendents' decision making. The data, which are presented in Table 24, compare mean scores from survey questions 11 and 23 (see Appendix E), which were also presented in Tables 6 and 11. The purpose of this component of the analysis was to compare what superintendents' perceptions were about the eight service attributes with

the impact that the service attributes had on the superintendents' decision making process when purchasing services or programs from BOCES. More simply stated, it compares what they believed to what they did.

Table 24

Comparison of Mean Scores for Service Attributes: Perceptions vs. Decisions

	Perceptions (Table 6)			Decisions (Table 11)		
Service attribute	Mean	Rank	N	Mean	Rank	N
Service & Performance	12.31			13.49		
Quality of interaction with BOCES staff	3.22	1	255	3.50	1	235
Services meet my district's needs	3.02	5	255	3.50	2	234
Expertise of staff	3.04	3	255	3.32	5	236
Quality of services	3.03	4	255	3.17	6	236
Rules & Regulations						
Processes in place for participation	3.07	3	255	2.91	7	236
Clarity of sharing rules	2.97	7	252	2.81	8	235
Financial considerations						
Cost of service	2.66	8	253	3.35	3	236
Aid as an inducement for participation	3.08	2	253	3.30	4	235
Total for all service attributes	24.09			25.86		

The total mean score for all eight service attributes for the impact on decision making was higher than for the total mean score of perceptions at 25.86 to 24.09 respectively. Attributes also scored higher as sub groups when viewed as decision criteria when analyzed within the three attribute groupings: service and performance attributes, financial considerations, and rules and regulations, which was the only group that received a higher score when viewed as perceptions.

A deeper analysis and comparison of the individual service attributes when ranked by mean score resulted in variations of importance among the eight attributes. Quality of interaction with staff was ranked first in both instances. Services meet my district's needs had a mean score of 3.5, which was ranked the second most influential attribute when treated as a

decision variable. However, in contrast, the attribute services meet my district's needs ranked fifth in terms of perception. The rules and regulations group for decision attributes ranked seventh and eighth and received a total mean score as a subgroup of 5.72. In contrast, the same two attributes received a sub group mean score of 6.04 when viewed as a perception. The corresponding ranks for these two items when evaluated as a perception were three and seven.

Cost of service was the third most influential attribute when viewed as a decision making factor. When cost was viewed as a perception of superintendents, it was ranked eighth. Cost was the most negatively perceived attribute and, when taken together as a decision attribute, the data suggested that cost was one of the most frequent factors in superintendents' interactions with BOCES.

In summary, the data showed that there were moderate differences in the perceptions of superintendents when the eight attributes were evaluated in contrast to when the attributes were viewed from a decision making perspective. In the case of quality of interaction with staff and cost of services, the data showed a more consistent relationship between perceptions and decisions. Overall, five of the eight service attributes had a difference in their mean score ranking by two or less points. This suggested that influence from the attributes somewhat consistently impacted interactions with BOCES regardless if it were viewed from the perspective of a perception variable or a decision variable, but there were moderately distinguishable differences between beliefs and actions.

Conclusion

The purpose of chapter four was to analyze the data collected in the survey instrument and to describe the results of the analyses of those data.

In summary, the data indicated that most superintendents believed that BOCES were effective organizations. They also believed that there were certain attributes that contributed more to the belief that BOCES were effective organizations. Service and performance and cost were reported in most instances to be the most important contributors to perceptions about effectiveness.

Decisions to use BOCES services were also most frequently impacted by a combination of service and performance attributes, although the attributes were not identical in their impact when compared to beliefs or perceptions.

In addition, perceptions and decisions also reflected variation in responses based on demographic characteristics, geographic location, and experience of the superintendent.

The next chapter presents a summary of the findings, conclusions, and recommendations.

Chapter 5: Summary of Findings, Conclusions, and Recommendations

The purpose of this chapter to is to present findings, conclusions, and recommendations about the data that were collected in this research project. This chapter begins with a brief reiteration of the problem statement, research questions, and background information about the participants in the study. The chapter is organized with research questions one and four presented first. Research questions two and three are presented next. The findings for research questions one and four are grouped together because they represent the data collected regarding superintendents' perceptions about the effectiveness and leadership attributes displayed by BOCES. Research questions two and three are grouped together because they focus on superintendent decision making in regard to the use of programs and services provided by BOCES. Conclusions are presented immediately following each finding. Recommendations are presented last and are divided into two sections: recommendations for practitioners and organizational leaders and recommendations for future research.

Research Questions

This quantitative study was designed to investigate factors that influenced NYS school superintendents' decisions to use services provided by BOCES. This study surveyed superintendents in NYS school districts that belonged to a BOCES and sought to answer the following research questions developed by the researcher.

1. What perceptions do superintendents hold about the service and leadership attributes associated with the programs and services offered by BOCES?
2. What factors influence a superintendent's decision to use or not use BOCES services?

3. Is there a relationship between a superintendent's decision to use BOCES services and the view of BOCES as a strategic partner in helping solve the district's operational and educational challenges?
4. Is there a relationship between certain school demographic characteristics and a superintendent's perception of BOCES?

Introduction

A survey instrument was sent to the 688 superintendents in NYS whose districts were members of a BOCES. The response rate represented 41% of the population. Eighty-four percent of the respondents completed the survey, and 16% of the surveys were partially completed. Geographic representation of the respondents was uniformly distributed across the state with no single area unrepresented or over represented. A snapshot profile of respondent districts showed that nearly 52% had budgets of less than $25 million. The data indicated that 58% of respondents had enrollments of less than 1500 and that 57% of them were classified as poor or high need with CWRs of less than .771. The data also showed that 145 districts identified themselves as high need districts according to NRC. This group included 120 high need-rural districts. The demographic profile based on work experience of the respondent superintendents indicated that 48% had less than five years experience as a superintendent and nearly 67% had less than five years experience in their current district.

In summary, the profile based on these demographic characteristics showed that the majority of respondents had limited experience as superintendents and that their districts were relatively small and uniformly distributed across the geographic regions identified in this study.

Summary of Findings and Conclusions: Research Questions One and Four

Research question one investigated the perceptions held by superintendents about the service and leadership attributes associated with the programs and services offered by BOCES. Research question four sought to understand what relationships may have existed between superintendent perceptions and certain demographic characteristics of the respondent population. These two questions were combined in the summary of findings and conclusions because they both represent data that are interrelated and build upon one another. Data regarding perceptions were analyzed against the data collected regarding the demographic information. Therefore, the summary of findings for these two research questions are presented together.

The findings and conclusions for these two research questions are organized into the following thematic components. First, the impact of the recent economic recession on superintendent perceptions of regionalized services is discussed. Second, the importance of selected service attributes that contribute to effective regionalized services and effective BOCES services is discussed. Third, the overall perception of the effectiveness of BOCES as organizations designed to provide shared educational services is discussed. The fourth subsection narrows the focus of superintendents' perceptions to those views specific to programs in the superintendent's local BOCES. In total, there are six findings and conclusions related to what superintendents believe about BOCES.

Finding #1. More than 70% of superintendents indicated that their perceptions about the viability of shared educational service arrangements had moderately or substantially changed since the economic recession. The four types of shared educational arrangements were district-to-district collaborations, inter-municipal agreements with other units of government, consortia arrangements, and BOCES. District-to-district arrangements were indicated as the type of

sharing arrangement that received the most responses for moderate or substantial changes in perception. BOCES received the least number of responses to changed perceptions.

Conclusion #1. The data for this finding suggest that pressures from the economic recession, coupled with educational reform initiatives, may have influenced a change in perceptions of superintendents regarding the viability of shared educational services. It is important to note that the data did not specifically indicate the nature of the changed perception (i.e. positive or negative), only that their perception of the viability of shared services had changed.

There are two perspectives that might explain why BOCES operations were the least frequently viewed shared service in which superintendents' perceptions changed. First, the data could be interpreted to mean that BOCES services are not as viable as other shared services or that BOCES is already a well-established and known institution designed to provide shared services. Therefore, because of its familiarity within the educational community, it does not have the novelty of other newer and less familiar shared arrangements.

The extent to which the perception of viability of the selected shared service arrangements have changed since the start of the recession is supported by the data in this study and is supported in the literature. The data indicate that there was nearly a 70% change in the perceptions of the viability of shared services arrangements since the onset of the latest economic recession.

In NYS, 52% of superintendents indicated that their school districts financial condition has worsened since 2011 (NYSCOSS, 2012). Forty-one percent indicated that that their districts would reach financial insolvency within four years (NYCOSS, 2012). Local governments are unable to keep up with the demands of a 21st century economic and educational environment

(Briffault, 2000). Reactions to the need for greater efficiency and effectiveness are often reflected in the creation of shared regionalized services (Boyne, 1996). Shared service arrangements have been a popular operational reaction to these issues because they create economies of scale, duplicate the positive impact of standardization, and allow for the continuation of local control and local identity (Eggars et al., 2005).

Finding #2. The study showed that attributes within the service and performance and financial considerations categories received the most frequent responses to being very important in contributing to the overall effectiveness of a shared service. Rules and regulations were consistently viewed as the least important attributes in contributing to effective services.

The rank order of importance for all individual service attributes was identical for regionalized education services and for BOCES services. The top four attributes contributing to effective regionalized shared services and BOCES services were quality of service, service fits district needs, reduction of cost, and expertise of staff. The least important were participant input and clarity of sharing rules.

Conclusion #2. The data in this study showed that the perceptions of the same attributes that make shared regionalized services effective are also the same as those that contribute to effective BOCES services. Three of the top four service attributes fell within the service and performance group, and one of them, reduction of cost, was in the financial considerations group. The responses of the superintendents represented in this study suggest a strong perception of the importance of performance (i.e. quality of service), technical competence (i.e. expertise of staff), and the service meeting district needs. Reduction of district cost was also a critical contributor to effective sharing of services. Reduction of cost as an element of overall effectiveness was likely one of the top ranked attributes because it is one of the central reasons for regionalized sharing of

services. An interpretation of these data also suggests that cost, service, and performance are viewed as being extremely important to effective execution of shared services.

The work of Farnsworth-Sipes (2010) and Harmon (2006) support this conclusion. A study of success attributes, which encompassed 18 post-secondary universities who were participating in a shared services consortium, identified and evaluated 10 success attributes associated with successful consortia (Farnsworth-Sipes, 2010). Although the 10 items used in that study do not directly duplicate the service attributes used in this study, they conceptually overlap onto the three major groupings used in this study: service and performance, financial considerations, and rules and regulations. Five of the identified success attributes in that study were directly or indirectly related with items associated with service and performance and cost effectiveness. Harmon (2006) identified 12 essential characteristics of successful shared services identified in interviews with school superintendents. The four that match most closely with the four attributes in this study, which were identified previously, are: must possess a servant mentality, the service employs credible personnel, must respond and listen to district needs, and must provide a cost savings. The literature shows that the identified success attributes in these two studies are closely identified with the most important attributes for effective shared services identified in this study.

Finding #3. The data suggested a strong positive perception of the overall effectiveness of BOCES. Superintendents viewed BOCES positively and somewhat positively 90% of the time. The data further suggested that there were service attributes that contributed more to the effectiveness of BOCES and several that were perceived as less critical in contributing to the overall effectiveness of BOCES. Service and performance attributes were the most important contributors to superintendents' perceptions of effectiveness. Financial considerations,

particularly the cost of services, were also evidenced as significantly important perceptions that contribute to effective BOCES services. Variations in the data existed, depending upon the wealth, size, and geographic location of the district.

Deeper analysis revealed that there was a statistically significant relationship between a district's NRC and the perception of the overall effectiveness of BOCES. The data revealed that the greater the need of the district, the more frequently they viewed the effectiveness of BOCES positively. High need-rural and urban districts had overall positive response rates regarding the effectiveness of BOCES at 87.5% and 60.9% of the time respectively. In contrast, low need districts indicated a positive perception of overall effectiveness only 53.5% of the time.

The data also suggested that there were variations in perceptions about the overall effectiveness of BOCES based the size of the district. Cross tabulation data for column frequencies indicated that districts with an enrollment of 0-1500 students were significantly more likely to positively (53.8%) or very positively (60%) view BOCES as effective organizations for the delivery of regionalized education services. In comparison, districts that had an enrollment of 6001-9000 (1.2%) or greater than 9000 (2.5%) were much less likely to view BOCES as effective organizations. The same pattern existed based on budget size. Districts in the smallest budget category, $0-25 million, were much more likely to positively (46.5%) or very positively (56.8%) view BOCES as effective organizations for the delivery of regionalized education services. According to the data, districts with budgets between $76-100 million and over $100 million were likely to respond very positively only 6.2% and 7.4% of the time respectively.

The data also suggest that there were variations in superintendent perceptions about the overall effectiveness of BOCES based on geographic location of the BOCES. Across all regions of the state, superintendents responded just over 90% of the time that they had a positive

perception of the effectiveness of their BOCES in fulfilling their mission to provide effective shared services to schools.

Five regions received a frequency score of 90% or better, indicating a positive perception of the BOCES in their region. Two regions received responses in which all of the superintendents in the identified geographic local viewed their BOCES positively. In rank order, the five most positively viewed geographic regions for effectiveness were: Mid-Hudson Valley (100%), Mohawk Valley (100%), Long Island (96.6%), Capital Region (94.6%), and the North Country region (93.9%).

Conclusion #3. The data in this study indicated that the general perception of the effectiveness of BOCES statewide is positive. The data appear to indicate that there are geographic areas in the state where the perception of BOCES effectiveness varies. In addition, the data also indicated that the smaller or more needy the school district is, the more positive the perception is regarding the overall effectiveness of BOCES. In addition, service and performance attributes, as well as the cost of services attribute, continue to be the most frequently perceived attributes that contribute to positive perceptions of the effectiveness of BOCES as entities designed to deliver shared regionalized education services.

There are several conclusions from these data. First, given the critical need for school districts to find solutions to their economic and educational challenges, BOCES, as entities specifically created for purposes of sharing resources and providing opportunities for school districts, appear to be viewed as an effective option for public schools in NYS. Shared services delivered through a BOCES appear, according to the data, to be a positively viewed option for school districts. These data support the notion of the role of BOCES as an effective solution for greater efficiency and effectiveness for regional educational opportunities for school districts as

indicated in the literature (Arfstrom, 2009; Harmon, 2006; NYS Governor's Office, New NY Education Reform Commission, 2012; Ward, 2007).

The second conclusion relates to the important balance between the cost of services and programs and the execution of quality services. The balance of cost and the level of quality create a delicate equilibrium between affordability and perceptions of overall effectiveness. The data in this study consistently indicated the importance of both cost and performance attributes. The data in this study concluded that both are important to perceptions of effectiveness. The data in this study strongly and consistently reflected the importance of the operational challenge of balancing components of cost with quality of service for BOCES organizations.

Third, the variations in the perceptions of the effectiveness of BOCES are a reflection of the overall varied profile of public schools in NYS. The public education system in NYS is characterized by enormous variations in geography, enrollment, wealth, demographic composition, and student need, which creates significant operating and educational challenges for the state and its school system (NYS Governor's Office, New NY Education Reform Commission, 2012; NYSCOSS, 2012). Therefore, it is no surprise that the data suggest tremendous variations in perceptions of the overall effectiveness of BOCES.

Finding #4. Seven BOCES program or service areas were identified in the study for observation. In rank order by total mean scores the three most positively viewed program or service areas were: management and administrative services (MAS), instructional staff development (ISD), and career and technical education (CTE). The two least positively viewed programs ranked by mean score were, special education (SPED) and related services (RS). Superintendents were asked to evaluate each of the seven BOCES programs using the eight

service attributes. Mean scores for superintendent perceptions were aggregated based on responses to each of the eight individual service attributes to determine the ranking.

Conclusion #4. The data suggested superintendents had the most positive perceptions of MAS, ISD, and CTE. SPED and RS were consistently viewed as the least positive in comparison to the other programs because they received the lowest mean scores. Within the SPED service area, the lowest ranked attributes were cost of service and participant input, which had mean scores of 2.33 and 2.82 respectively. For these two lowest scoring service attributes, superintendents responded somewhat negatively or very negatively approximately 40% of the time. This suggests that superintendents had a negative perception of the cost of SPED programs, as well as having a negative impression of their ability to have input into the SPED programs more frequently than for other programs. In addition, the generally lower mean scores of all service attributes for this program indicated that these programs in general are the least likely to reflect positive perceptions from superintendents.

RS attributes receiving the lowest mean scores fell within the rules and regulations and financial considerations categories. They were cost of service and participant input. This is another indicator that superintendents had a negative perception of the cost of RS programs more frequently when compared to other attributes and programs. The low mean score for the participant input variable for RS programs was also an indicator that superintendents had a less positive view of their ability to have input into the cost of RS, in comparison to other programs. Further, the data also revealed an interesting similarity between SPED and RS programs. The data showed that attributes associated with staff and service quality were viewed positively in both programs, which suggests that superintendents recognized staff as being competent and qualified. However, lower mean scores regarding superintendent negative perceptions existed

for both programs, particularly with cost and participation attributes, in contrast to the other five programs. This may indicate superintendent concern over the inability of superintendents to control costs related to SPED programming in general.

Superintendents in this study responded with the highest scores for positive perceptions across the eight service attributes for MAS, ISD, and CTE programs. There are three specific conclusions that can be drawn from this.

First, perceptions of superintendents consistently showed higher scores across the board for the eight service attributes, which suggests that these services are more frequently viewed positively, in terms of service, performance, cost, sharing rules, and execution.

Second, MAS has been gaining increasing notoriety as consolidations of back office functions are becoming more commonplace. These services require considerable developmental input from willing school leaders who have a significant interest in their success. ISD services also reflected a substantially positive perception from the superintendents in this study. In the case of ISD, the focus of staff development activities in BOCES across NYS recently has been on the regionalization of activities surrounding common core standards, APPR, and RTTT initiatives. Due to the regionalization of efforts on these school improvement initiatives and the importance of their execution, it is not surprising that school superintendents have been actively and directly engaged with their local BOCES regarding these activities. CTE programs were likely to be viewed positively because they are one of the few viable vocational and technical education options for secondary age students. Therefore, they serve as a much necessary component of educational responsibility for local school districts.

Third, it could be concluded that perceptions of these programs are positive because they believed BOCES are in an excellent position to deliver these services for schools. This

conclusion is supported in the literature because BOCES are in a key position as regional advocates to gather intellectual capacity, to leverage economies of scale, and to effectively structure outcomes through shared services (Harmon, 2012).

Finding #5. Expertise of staff was ranked as the most positively viewed attribute in all seven programs areas. Cost of service was the least positively viewed attribute followed by participants have adequate input. Cost of service consistently ranked seventh in all programs followed by the clarity of sharing rules and participants have adequate input.

An analysis of the mean scores for each service attribute across the seven program areas revealed the following rank from most positive to least positive: expertise of staff, quality of service, quality of interaction, incentive aid, program meets needs, clarity of sharing rules, participants have adequate input, and cost of the service.

Conclusion #5. Several important conclusions can be inferred from the data and findings regarding the perceptions of the eight service attributes. The eight service attributes were expertise of staff, quality of service, quality of interaction, incentive aid, program meets needs, clarity of sharing rules, participants have adequate input, and cost of the service.

First, superintendents in this study viewed the quality of service, quality of interaction with staff, and expertise of BOCES staff more favorably than other components of service. Responses from superintendents were very consistent for these three service attributes across all seven program areas. Each of these three specific service attributes fell within the service and performance group. The conclusion that BOCES should target operational strategies that enhance overall quality and effectiveness is also supported in the literature. Garvin (1987) concluded that the primary focus of service organizations should be on the tangible components of service and product quality. He outlined eight components of quality that are important to

consumers: performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality. In addition, the literature indicates that dimensions of quality are directly linked to customer expectations, and expectations are developed from perceptions (Kenyon & Sen, 2012). Therefore, it could be concluded that superintendents' perceptions regarding expectations of quality are strategically critical to BOCES operations and beliefs from superintendents about their overall effectiveness.

Second, cost of service and processes in place for participation consistently received the lowest mean scores. Third, incentive aid as an inducement for participation in BOCES services placed in the middle of all service attributes. This is an indicator that aid on services may be important in some cases, but it is not a predominant attribute that consistently affects overall perception. This is of particular interest because cost was the most frequently rated negative service attribute and shares an important relationship to incentive aid for participating in BOCES services. Incentive aid for BOCES services is paid to the district the year after the district purchases the services and, ultimately, acts to reduce the out of pocket cost to the district.

The lower mean scores in these attributes areas mentioned in the previous paragraph were not surprising. Farnsworth-Sipes (2010), in her study of 18 post-secondary universities shared service (consortia) activities, concluded that two of the top 10 success attributes for collaborative activities included finance structures that benefit all members and shared decision making processes. Two of the three lowest scoring attributes are related to finance structures (cost and incentive aid), and the third, processes in place for participation, aligns with Farnsworth-Sipes (2010) attribute related to shared decision making. Last, given the degree of financial stress that school districts are experiencing, it is not surprising that cost is always a concern for superintendents.

In summary, the data showed a consistent frequency of response in two areas. The category of service and performance, and its four attributes, was most frequently viewed as being important or very important to the perceptions of superintendents about the effectiveness of BOCES programs. This was reflected in the consistently higher mean scores in comparison to the other attributes. The most consistently low scoring attribute in terms of frequency and mean scores across all programs and service attributes was the cost of service.

Finding #6. Leadership attributes that received the most recurrent responses for frequently or always displaying the leadership attribute were provides leadership regarding state and regional issues, effectively communicates issues related to its services, and understands the needs of its component districts.

The leadership attributes receiving the least number of responses to always or frequently, were related to the development and deployment of new services. Specifically, the least frequently perceived leadership attributes being displayed were develops innovative services and develops new services timely. The leadership attribute receiving the most never responses was the attribute related to operating with a customer service orientation.

Conclusion #6. In this study, responding superintendents indicated that the leadership in their local BOCES consistently displayed three specific leadership attributes more frequently than others. BOCES leadership is effective at handling state and regional issues, communicating issues related to its services, and understanding the needs of its school districts. However, they are less effective in the timely development of new and innovative services.

It can be further concluded that the perceived inability of BOCES to effectively develop timely and innovation services is inhibited by the following circumstances. The entrepreneurial capabilities of BOCES may be limited due to state rules and regulations that govern BOCES. In

addition, BOCES financial structures are not constructed to support research and development for new program/service innovations due to state required financial rules. Last, the management structures within individual BOCES may not be set up or may not have processes in place for communication with their schools that would foster the development of new and timely innovations related to services.

In summation, the data indicated the importance of understanding district needs, communicating and operationalizing these items into services that are innovative, and meeting district needs.

Summary of Findings and Conclusions: Research Questions Two and Three

Research questions two and three focused on the decision making process of superintendents and those factors that may or may not have influenced the use of BOCES services. The summary of findings and conclusions for these two research question are organized and presented together because both research questions addressed the factors that influenced the decision making process of superintendents. The data, analyses, and findings related to influences on superintendent decisions build upon one another, and therefore, the summary of findings and conclusions are presented together in order to provide greater clarity for the reader. There are a total of four findings and recommendations in this section.

Finding #7. Superintendents indicated at least 88% of the time that five service attributes had at least a frequent impact on the decision making process when deciding to use or not to use BOCES services. Four of them were in the service and performance group: quality of interactions with staff, services meets district needs, expertise of staff, and quality of service. One of them, BOCES aid as an inducement for participation, was in the financial consideration group.

The range of mean scores ran from a high of 3.50 for quality of interaction with BOCES staff and program meets the district needs to a low of 2.81 for the service attribute related to the clarity of sharing rules. Cost of service also ranked very high with a mean score of 3.35, indicating that cost was also a frequent indicator having a significant impact on decisions to use BOCES services. Other impactful attributes were staff expertise and BOCES aid as an inducement for participation in BOCES services. The least impactful service attributes based on mean scores were clarity of sharing rules and ability to have input into the service operations. Both mean scores for these two attributes were well below the average mean of all attributes, which was 3.32.

The average overall mean scores across all eight service attributes was 3.32 out of a possible scale 4.0, which is an overall indicator that researcher selected attributes in this study played a large role in the decision making process of superintendents when choosing to use or not to use services provided by BOCES.

Conclusion #7. First, these data suggest a strong importance of all four service and performance attributes identified in this study as factors that impact decisions to use BOCES services. Quality of the interaction and expertise of staff, in conjunction with cost of the service and the ability of the service to meet district needs, are frequent variables taken into consideration by superintendents when making decisions to uses BOCES services. Quality of interaction with staff refers to the nature of the relationship with the BOCES staff member and is different from the quality of service. Although both attributes are related to performance, the prior suggests quality of relationship and the latter is an indication of the strength of performance.

Second, the two attributes receiving the most responses indicating the least impact on decision making were processes in place for participation and clarity of sharing rules, which received never or occasionally responses approximately one-quarter of the time. This indicated that one out of four superintendents said that rules and regulations was never or only occasionally an important factor in deciding to use services from BOCES.

The data in this study for the service and performance category continued to indicate the strength of influence and importance in both the perceptions and decisions of superintendents regarding BOCES services. Additionally, within the financial considerations grouping, cost of service was also consistently influential to perceptions and decision making. This contention is supported in the literature and is explained briefly in the next paragraph.

The research literature in regard to consumer behavior links consumer perceptions of product quality to decisions to utilize those services (Garvin, 1987; Hayes, 2008; Kenyon & Sen, 2012). Previous sections of this research discussed perceptions of superintendents about various aspects of BOCES, many of which were viewed positively, particularly service and performance attributes. Given the research literature regarding consumer behavior, it is not surprising that there was a relationship between the most frequently positively perceived attributes of service and performance and the most frequently impactful decision attributes.

Finding #8. The data in this study suggested that district operational considerations as a whole were not as frequently influential in the decision making process for superintendents as were service and performance or financial attributes. The operational condition (circumstance) most frequently impacting the decision making process was the potential reduction of staff in the superintendent's district. The second most impactful district operational circumstance was the potential reduction or loss of BOCES aid. The third most impactful district operational

circumstance was superintendent experience. Superintendents were asked if they thought that their experience with BOCES prior to being a superintendent affected their decisions to use BOCES services in their current position as a superintendent. Responses were nearly split 50-50 between having an occasional or no influence (46.4%) on the decision making process and frequently or always having an influence (53.6%) on the decision making process.

Conclusion #8. Service and performance attributes and financial considerations are more frequently impactful on a superintendent's decision-making process when it comes to decisions related to the use of BOCES services when compared in context to district operational circumstances.

When it comes to receiving aid on services and programs as an inducement for participation in BOCES services and programs, it is a more influential factor for superintendents when deciding to use BOCES services and programs. In contrast, the reduction of aid, when it was taken in the context of an operational circumstance, was not as influential to the superintendents in this study when deciding to purchase BOCES services. The dichotomy of these two items was not fully explainable based on the data variables within this study. However, it could be concluded that aid is a more influential factor when superintendents consider the use of BOCES program, but if BOCES aid were reduced or eliminated, it would not be as critical of a factor when deciding to use BOCES programs.

In conclusion, the data suggest the strongest influence on decision making emanates from service and performance attributes and financial attributes. District operational circumstances were also shown to have a moderate impact. Last, the data also suggest a strong impact based on experiences with BOCES prior to being a superintendent.

Finding #9. Nearly 75% of the responding superintendents frequently or always viewed BOCES as a strategic partner in helping solve their districts' educational and operational challenges. Only 4.3% indicated that BOCES was never considered as a strategic partner in helping solve their districts' educational and operational challenges.

The data suggested that all of the variables except one had an impact on decision making regardless of whether or not the BOCES is viewed as a strategic partner. The range of impact for each variable differed. As stated previously, the eleven variables were sub grouped into four categories: service and performance, financial considerations, rules and regulations, and district operational circumstances. The highest impact variable was quality of service from BOCES staff at 96% frequency of impact when the district views BOCES as a strategic partner. Correspondingly, the same variable influenced decisions nearly 88% of the time when BOCES was not viewed as a strategic partner. Overall, the data indicated that service and performance variables, when taken as a group, had a greater frequency of impact on decision making than rules and regulations, financial considerations, or district operational considerations.

In addition, seven of the variables had a more frequent influence on superintendents' decision making when the district never or only occasional viewed BOCES as a strategic partner.

Conclusion #9. The data indicated that the less frequently BOCES was viewed as a strategic partner, the more likely superintendents were influenced by the eight service attributes and the three district operational circumstances when decisions were being made to uses BOCES services. As a result, it may be inferred that those districts that do not view BOCES as a strategic partner are more likely to approach their relationship with BOCES in a more pragmatic business type manner. This means that the impact of these identified attributes is that they act as more definitive transaction-based decision points for districts that do not view BOCES as a

strategic partner. Stated conversely, those districts that view BOCES as a strategic partner may be willing to sacrifice short term, transaction specific service elements, for tangible long term benefits related to strategic partnerships.

Finding #10. This study found a statistically significant relationship between superintendents' views of BOCES as a strategic partner and their likelihood to use BOCES services in the future because the service is effective in meeting district needs. Approximately 75% of the respondent population frequently or always viewed BOCES as a strategic partner. Districts who viewed BOCES as a strategic partner were four to seven times more likely to use BOCES services in the future because they believed that the services are effective in meeting district needs. The responding superintendents who identified themselves as partners with BOCES indicated that they would utilize the following six programs because the program was effective in meeting their districts' needs: ISD, MAS, SPED, ADMTECH, INSTECH, and RS. The only program not showing a significant relationship with BOCES as a strategic partner was CTE.

Conclusion #10. BOCES that have established strategic partner relationships with their component schools are 40% to 70% more likely to have their districts utilize BOCES services in the future because the district believes the service meets their needs. Strategic partnerships between districts and BOCES are an important strategic consideration for BOCES leadership because districts are more likely to be tolerant of inconsistencies in service delivery and pricing of products in contrast to districts that do not view BOCES as a strategic partner. Second, it is also potentially important from a regional perspective. If a BOCES region has a greater number of districts that view their relationship with BOCES as a strategic partnership, it could be inferred that the region will have a greater ability to withstand economic turbulence and will be

able to positively respond to educational reform initiatives in a more strategic manner, thus strengthening education programming for students. This could help fortify the overall quality of the educational system locally, regionally, and statewide. This is possible because districts are more likely to be able to combine resources and efforts to increase efficiencies and effectiveness when they act in collaboration with one another.

Finding #11. The data indicated that superintendents would frequently utilize BOCES programs in five of the seven service areas because they meet district needs. These services include CTE, INSTECH, ADMTECH, SPED, and ISD. The programs receiving the lowest score for future use based on the effectiveness of meeting district needs were RS and MAS.

Conclusion #11. The data suggested that the five programs identified in Finding #11 are more likely to be used in the future by the responding superintendents because the service meets district needs. Two conclusions could be inferred from this.

First, the five services or programs may truly meet district needs in terms of the eight service attributes identified in this study, or second, the indication from superintendents that they would purchase these services could, in part, be a reflection of limited options related to the provisioning of the service. For example, CTE is not likely to be purchased from an institution other than a BOCES. The only other option would be for the district to provide its own program; most schools cannot do this. Another example would be with SPED. Although school districts provide their own SPED services in many instances, there are circumstances in which the placement of a child in a BOCES SPED class may be the only option for the district. This is particularly true if the child has severe handicapping conditions that the district is unable to provide for.

Recommendations for System Leaders

Recommendations for system leaders are based on the findings and conclusions of this research project. The recommendations presented are not directed solely toward system leaders who are involved in the business of education. Results may be beneficial to the greater governmental leadership community, particularly segments directed toward service attributes that are important contributors to successful shared services.

Although this research study focused primarily on shared services in the form of BOCES, the results and benefits can be extended to a larger community of interests, namely state and local political leaders, leadership in government agencies, departments, and municipalities as a whole. System leaders across all governmental institutions should understand and investigate the benefits of shared service arrangements.

Government entities of all sizes and forms have been impacted by recent economic conditions, not just public education. Economic conditions have forced governments to seek new ways to achieve efficiencies while maintaining services. Many forms of regionalized sharing activities among municipalities have emerged in recent years. This project presented research regarding attributes and/or conditions that are common in successful sharing arrangements and collaborations of different kinds. It also presented an overview of some of the most common types of structural sharing collaborations, which were concluded from an evaluation of over 600 collaborative non-for-profit arrangements (Hager & Curry, 2009). The public's demand for greater governmental efficiency and effectiveness will likely continue even when the economy begins to recover.

Research has identified shared services as a viable option for government officials for reasons beyond simple cost reduction. Shared service arrangements are effective because they

create economies of scale, duplicate the positive impact of standardization, and allow for the continuation of local control and identity, thus reducing political hurdles often associated with other forms of regionalization, such as mergers and consolidations (Eggars et al., 2005).

Recommendation #1. State level politicians should evaluate the circumstances surrounding current governmental operations and consider the creation of an institution similar to the BOCES designed for local government or possibly expand the authorization for BOCES to offer services to other forms of government beyond public schools.

BOCES have grown since their inception in1948 into an integral part of the educational landscape in NYS by offering a plethora of shared services to public schools. According to the data in this research project and information revealed in the literature, BOCES are consistently and frequently viewed as effective organizations in the delivery of shared education services (Ward, 2007). There is no comparable model that exists for local municipal governments. There are many small local government municipalities across the state that could benefit from an institution similar to BOCES, whose purpose is the creation and delivery of shared services. One of the negative service attributes evidenced in this study was the cost of services. Cost of services was the most frequently and consistently identified negative attribute. At the same time, cost was the most frequently impactful attribute when superintendents were evaluating criteria related to the purchase of services from BOCES.

Recommendation #2. BOCES leaders and staff need to be keenly aware of the sensitivity to the cost of the services they provide. BOCES leadership should develop a modeling tool to demonstrate the effectiveness and efficacy of their services. The model could be used for marketing and communication to local school boards and could be used more broadly by other government officials when evaluating the efficacy of shared service arrangements.

Recommendation #3. If BOCES are to continue to be viewed as effective shared service entities, they will need to improve upon their innovation and timeliness of delivery of these innovations. To address this, the profile of BOCES leadership should reflect a greater entrepreneurial spirit and foster this attitude in all aspects of BOCES operations. The role of the district superintendent has changed over time, as have the needs of school districts. Future leadership characteristics embodied in BOCES leadership, must fully and completely posses the skills to lead in an ever evolving entrepreneurial environment in order to meet the needs of their districts and strategically structure their operations in order to achieve this.

Superintendents in this study indicated that BOCES leadership attributes were frequently displayed for leadership regarding state and regional issues, communicating effectively regarding issues related to services, and understanding the needs of their districts. However, leadership regarding the development and deployment of timely and innovative services received much lower opinions from superintendents.

Recommendation #4. To the degree that bureaucratic entanglements or organizational structures within BOCES prevent the timely development and the release of new services, BOCES leaders should directly and affirmatively address these issues with their component school districts to seek solutions to the circumstances that prevent innovation and greater efficiency.

Recommendations for Future Research

This study focused on superintendents in NYS school districts as the unit of analysis and was conducted using a quantitative method. Data were collected using a researcher developed survey that was intended to capture the perceptions of superintendents about BOCES and the factors that impacted superintendent decisions to use services provided by BOCES. Therefore,

the scope was limited to superintendents, BOCES, and NYS. The research could be broadened and adapted in the following ways in order to expand and deepen the research with respect to regionalism, shared services, ESAs, BOCES and BOCES leadership in general.

A quantitative approach was used to gather data from superintendents in this study. The data revealed in a qualitative study could also add valuable and much needed research to practitioners regarding the operation of BOCES. Quantitative research is characterized by an evaluation of descriptive data that attempts to identify statistical relationships, which are designed to describe, predict, and explain relationships within the data. A qualitative methodology could be designed with interviews conducted for selected superintendents and/or other school district personnel. Qualitative studies utilize a different approach, which is characterized by a study of behavioral attributes or actions that identify data in terms of words. The target population is usually smaller and more intimate. The general purpose is to understand social behavior.

This study focused on the superintendents as the unit of analysis because of their role as CEO. A broader population that includes other school district personnel may elicit different results and may add to the richness of the data collected in this study. There are many influential decision makers within school districts that interact with BOCES on a regular basis. This research project only surveyed superintendents. The research would contribute to a greater understanding of shared services, BOCES, and the operational environment of public school districts.

In addition, this study raised several issues about the leadership of BOCES in NYS regarding the impact of leadership on strategic partnerships, the impact of BOCES size on views

of BOCES as strategic partners and the role that they may have on these relationships. Future studies in these areas would be beneficial for the educational community.

This research study focused on ESAs in NYS (BOCES). The method could be adapted to broaden the research to ESAs in other states. Such a study would broaden the much needed research regarding the operation of ESAs. ESAs operate in many states across the country and are an influential component in the educational system nationally; therefore, research regarding the efficacy of ESA operations could provide valuable insight into the processes of these shared service entities.

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Appendix A

Summary BOCES Service Expenditures: 1994-1995 and 2009-2010

Table 25

Summary of BOCES Service Expenditures: 1994-1995 and 2009-2010

	602 report year		15 year change	
	1996 FY 94-95	2010 FY 09-10	$	%
Services				
Career and technical education	$198,732,370	$354,529,294	$146,796,924	73.9%
Special education	$498,369,292	$964,603,688	$466,234,396	93.6%
Itinerant	$58,522,510	$131,001,225	$72,478,715	123.8%
General instruction	$85,122,189	$182,213,025	$97,090,836	114.1%
Instructional support services	$169,970,510	$463,900,599	$293,930,089	172.9%
Technology & management services	$178,945,089	$514,771,037	$335,825,948	187.7%
Total services	$1,189,661,960	$2,602,018,868	$1,412,356,908	118.7%
Admin and capital				
Admin	$81,186,923	$164,532,116	$83,345,193	102.7%
Capital	$38,284,564	$73,952,042	$35,667,478	93.2%
Total admin and capital	$119,471,487	$238,484,158	$119,012,671	99.6%
Grand total	$1,309,133,447	$2,840,503,026	$1,531,369,579	117.0%
Total students served	1,532,187	1,545,036	12,849	0.8%

Note. Adapted from *Financial and statistical outcomes of the boards of cooperative educational services: Chapter 602 report for the 1996-1997 school year* by New York State Education Department, 1996. Adapted from *Financial and statistical outcomes of the boards of cooperative educational services: Chapter 602 report for the 2009-2010 school year* by New York State Education Department, 2011.

Appendix B

Email Notification to Survey Participants

Date:
Name of school superintendent
Address of school superintendent

RE: Research Study – Superintendent Perceptions of BOCES. https://www.surveymonkey.com

Dear _____

My name is Mark Jones. I am a doctoral candidate in the educational leadership program at Sage College in Albany, New York. I am writing to let you know about a research study that I am conducting and ask for your help with the study. The study will examine the perceptions of school district superintendents about BOCES and factors that influence their decision to use BOCES services. As a Deputy Superintendent of a BOCES, I am keenly interested in the perception that school districts have about BOCES and the factors that influence decisions to utilize services provide by Boards of Cooperative Educational Services.

This study will provide much needed research about the efficacy of services provided by BOCES. It will provide valuable insight for all public school superintendents and BOCES across the state; and provide a basis for enhancing the effectiveness of regional educational collaboratives such as BOCES. Your support of the research would be very much appreciated through the completion of the survey.

Listed below are the details of the survey that may be helpful for you to know:

- The research will involve the completion of a 28-question survey that will take 12-15 minutes to complete.

- The **survey will be confidential** and collect data from you about your district and your beliefs about BOCES.

- There will be minimal access to the identity of the individual completing the survey. IP addresses of the respondent will be visible to the researcher but will be destroyed upon completion of the study.

- There will be NO identifiable information of individual school districts or BOCES reported.

- Analysis and reporting will be done in aggregate. Data will be categorized by demographic characteristics and/or by geographic location. There will be no categorization of data that would identify or connect a district to an individual BOCES.

After the completion of the degree requirements, all data will be destroyed. However, results of the research will be reported in the aggregate and may be published in a professional journal or presented at professional meetings.

Participation in the survey is voluntary. At any time during the survey, you may stop or choose not to answer questions, which you may not be comfortable with. **Your decision to participate in the survey constitutes informed consent.** Information about informed consent is included as part of this letter.

This research study has received the approval of the Sage Colleges Institutional Review Board, which functions to insure the protection of the rights of human participants. If you, as a participant, have any complaints about this study, please contact: Dr. Ester Haskvits, Dean, Sage Graduate Schools, School of Health Sciences, 65 First Street, Troy, N.Y., 12180. She may also be reached by phone at 518-xxx-xxxx or by email at xxxxxx@sage.edu.

If you have any questions, please feel free to contact me at xxxxxxx@sage.edu or my doctoral chairperson, Dr. Robert Bradley at xxxxxxx@sage.edu with any questions or concerns.

Thank you for your consideration to participate. I hope you will be willing to give approximately 15 minutes of your time to add to the considerable importance of this research.

Please click on the following link to go to the survey -https://www.surveymonkey.com

Sincerely, Mark Jones
Doctoral Candidate
Sage Graduate Schools Albany, NY

Appendix C

Notification to District Superintendents

Date:
Name and address of BOCES District Superintendent
RE: Research Study – Superintendent Perceptions of BOCES

Dear (District Superintendent's name),

My name is Mark Jones. I am a doctoral candidate in the educational leadership program at Sage College in Albany, New York. I am writing to let you know about a research study that I am conducting and ask for your help with the study. The study will examine the perceptions of school district superintendents about BOCES and factors that influence their decision to use BOCES services. As a Deputy Superintendent of a BOCES, I am keenly interested in the perception that school districts have about BOCES and the factors that influence decisions to utilize services provide by Boards of Cooperative Educational Services.

This study will provide much needed research about the efficacy of services provided by BOCES. It will provide valuable insight for all public school superintendents and BOCES across the state; and provide a basis for enhancing the effectiveness of regional educational collaboratives such as BOCES. The survey will be sent to all school superintendents in NYS, whose districts are a component of a BOCES.

Listed below are the details of the survey that may be helpful for you to know:

- The research will involve the completion of a 28-question survey that will take 12-15 minutes to complete.

- The **survey will be confidential** and collect data about school district demographics and the superintendent's perceptions and actions about BOCES.

- There will be minimal access to the identity of the individual completing the survey. IP addresses of the respondent will be visible to the researcher but will be destroyed upon completion of the study.

- There will be NO identifiable information of individual school districts or BOCES.

- Analysis and reporting will be done in aggregate. Data will be categorized by demographic characteristic and/or by geographic location. There will be no categorization of data that would identify or connect a district to their BOCES.

After the completion of the degree requirements, all data will be destroyed. However, the results of the research will be reported in the aggregate and may be published in a professional journal or presented at professional meetings.

Participation in the survey is voluntary. At any time during the survey, the superintendent may stop or choose not to answer questions, which they may not be comfortable with. This research study has received the approval of the Sage Colleges Institutional Review Board, which functions to insure the protection of the rights of human participants. An informed consent form will be sent to each participant explaining the risk and their rights related to informed consent.

If you should have any questions or concerns please feel to call me at 518-xxx-xxxx or email me at xxxxxxx@sage.edu. Thank you.

Sincerely, Mark Jones
Doctoral Candidate
Sage Graduate Schools Albany, NY

Appendix D

Informed Consent Form

You are being asked to participate in a research project entitled**:**

Superintendents Perceptions of Boards of Cooperative Educational Services in New York State.

This research is being conducted by
Dr. Robert Bradley-Principal Investigator
Associate Professor
Esteves School of Education
Sage Graduate School, Albany, N.Y.

Mark Jones-Doctoral Candidate
Esteves School of Education
Sage Graduate School, Albany, N.Y.

Purpose of the research
The study will examine the perceptions of school district superintendents about BOCES and factors that influence their decision to use BOCES services. As a Deputy Superintendent of a BOCES, I am keenly interested in the perception that school districts have about BOCES and the factors that influence decisions to utilize services provide by Boards of Cooperative Educational Services.

Nature and duration of participation
Your participation in the research study will conducted through the completion of a short survey designed to capture information about your perceptions of BOCES.

Listed below are the details of the survey that may be helpful for you to know:

- The research will involve the completion of a 28-question survey that will take 12-15 minutes to complete.

- The **survey will be confidential** and collect data from you about your district and your beliefs about BOCES.

- There will be minimal access to the identity of the individual completing the survey. IP addresses of the respondent will be visible to the researcher but will be destroyed upon completion of the study.

- There will be NO identifiable information of individual school districts or BOCES.

- Analysis and reporting of data will be done in aggregate. Data will be categorized by demographic characteristics and/or by geographic location. There will be no categorization of data that would identify or connect a district to its BOCES.

Procedures to be followed

Participation is very straightforward. Simply click on the link that is located on the invitation and it will take you directly to the survey. Instructions for completion of the survey are embedded in the survey.

Protection of confidentiality

This is a confidential survey. The will be NO identifiable information of personal identity, district identity or BOCES identity, except for the initial trail of the respondents IP address, which is only accessible to the researcher. All data will be collected and reported in aggregate. After the completion of the degree requirements, all data will be destroyed. Results of the research will be reported in aggregate and may be published in a professional journal or presented at professional meetings.

Benefits of participation

This study will provide much needed research about the efficacy of services provided by BOCES. It will provide valuable insight for all public school superintendents and BOCES across the state; and provide a basis for enhancing the effectiveness of regional educational collaboratives such as BOCES.

Potential risks of participation

Even though the design of this research study protects participants through confidentiality, participants may still feel anxious about answering questions about their perceptions and beliefs about BOCES. At any time participants may skip specific questions which they are not comfortable with and/or abandon the survey altogether.

Consent

Participation is voluntary, I understand that I may at any time during the course of this study revoke my consent and withdraw from the study without any penalty.

I have been given an opportunity to read and keep a copy of this agreement and to ask questions concerning the study. Any such questions have been answered to my full and complete satisfaction. I also understand that my participation in the survey constitutes acknowledgement of informed consent. If you have any questions regarding the study, I may be reached by email at xxxxxxx@sage.edu or by phone at 518-xxx-xxxx

This research has received the approval of The Sage Colleges Institutional Review Board, which functions to insure the protection of the rights of human participants. If you, as a participant, have any complaints about this study, please contact:

Dr. Esther Haskvitz, Dean
Sage Graduate Schools
School of Health Sciences
65 First Street
Troy, New York 12180
518-xxx-xxxx
xxxxxx@sage.edu

Appendix E

Survey Instrument

Superintendent Perceptions of BOCES

Part 1-Demographic and background information (RQ4)

There are four (4) sections to this survey, which should take you 12-15 minutes to complete. Please know that you may stop at any time and you do not have to answer any questions with which you are not comfortable. Thank you for taking the time to be part of this research project.

This survey attempts to capture the perceptions and beliefs of superintendents and the factors which impact their decisions to use services provided by Boards of Cooperative Educational Services(BOCES).

The survey consists of the following four parts;

1) Demographic and background questions
2) Organizational and entity level perceptions about BOCES
3) Perceptions and beliefs about specific BOCES programs
4) Factors that impact decision making related to using BOCES

1. How many years have you served as a superintendent?

◯ 0-5 years ◯ 6-10 years ◯ 11-15 years ◯ 16-20 years ◯ 21 or more years

2. How many years have you served as the superintendent of your current school district?

◯ 0-5 years ◯ 6-10 years ◯ 11-15 years ◯ 16-20 years ◯ 21 or more years

3. The "Need-to-Resource Capacity" (NRC) of my school district is: (Need to Resource capacity is a measure of a districts ability to meet the needs of its students with local resources. Click the following link to look up your district NRC. http://www.p12.nysed.gov/irs/accountability/2011-12/NeedResourceCapacityIndex.pdf

◯ High need-urban/suburban ◯ High need -rural ◯ Average need ◯ Low need

4. My districts combined wealth ratio is (CWR)?

5. My district's 2012-13 student enrollment is?

◯ 0-1500
◯ 1501-3000
◯ 3001-6000
◯ 6001-9000
◯ more than 9000

6. My district's 2012-13 budget is?

◯ 0-25 million $
◯ 26-50 million $
◯ 51-75 million $
◯ 76-100 million $
◯ 100 million $ or more

Page 1

Superintendent Perceptions of BOCES

7. Please indicate the geographical location of your district:

- ◯ LONG ISLAND: Nassau, Suffolk Counties
- ◯ LOWER HUDSON VALLEY: Putnam, Rockland, Weschester Counties
- ◯ MID-HUDSON VALLEY: Dutchess,Orange, Sullivan,Ulster Counties
- ◯ CAPITAL REGION: Albany, Columbia, Greene, Rennselaer, Saratoga, Schentectady, Warren, Washington Counties
- ◯ MOHAWK VALLEY: Fulton, Herkimer, Montgomery, Oneida, Schoharie Counties
- ◯ CENTRAL NEW YORK: Cayuga, Cortland, Madison, Onondaga, Oswego, Tompkins Counties
- ◯ NORTH COUNTRY: Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, St. Lawrence Counties
- ◯ SOUTHERN TIER:Broome, Chemung, Chenango, Delaware, Otsego, Schuyler, Steuben, Tioga Counties
- ◯ FINGER LAKES: Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, Yates Counties
- ◯ WESTERN NEW YORK: Allegany, Cattaraugus, Chautauqua, Erie, Niagara Counties

Superintendent Perceptions of BOCES

Part 2-Organizational and entity level perceptions about BOCES (RQ1)

The questions in this section focus on the perceptions and beliefs that superintendents hold in regard to regionalized education services and BOCES as organizations that are designed to provide shared services.

8. Please rate each of the following attributes in terms of the importance of their contribution to the effectiveness of REGIONALIZED EDUCATION SERVICES, including BOCES, district-to-district shared services, consortium's, inter-municipal agreements and other collaborative initiatives.

	Not important	Somewhat important	Important	Very important
Reduction of costs	◯	◯	◯	◯
Service fits district's needs	◯	◯	◯	◯
Quality of service	◯	◯	◯	◯
Expertise of staff	◯	◯	◯	◯
Participant input	◯	◯	◯	◯
Clarity of participation rules	◯	◯	◯	◯
Quality of interaction w/ staff	◯	◯	◯	◯
Monetary incentive to participate (aid)	◯	◯	◯	◯

9. Please rate each of the following attributes in terms of the importance of their contribution to the effectiveness of BOCES services.

	Not important	Somewhat important	Important	Very important
Reduction of costs	◯	◯	◯	◯
Service fits district's needs	◯	◯	◯	◯
Quality of service	◯	◯	◯	◯
Expertise of staff	◯	◯	◯	◯
Participant input	◯	◯	◯	◯
Clarity of participation rules	◯	◯	◯	◯
Quality of interaction w/ staff	◯	◯	◯	◯
Monetary inducement to participate (aid)	◯	◯	◯	◯

10. My overall perception of the effectiveness of BOCES as organizations designed to deliver regionalized education services, is?

◯ Very negative ◯ Negative ◯ Positive ◯ Very positive

Superintendent Perceptions of BOCES

11. My overall PERCEPTION about

	Very Negative	Negative	Positive	Very positive
the COST of BOCES services is?	◯	◯	◯	◯
the QUALITY of BOCES services is?	◯	◯	◯	◯
the QUALITY of interaction w/BOCES staff is?	◯	◯	◯	◯
the EXPERTISE of BOCES staff is?	◯	◯	◯	◯
the PROCESSES in place for PARTICIPATION in services is?	◯	◯	◯	◯
the CLARITY of SHARING rules related to participation is?	◯	◯	◯	◯
the BOCES AID formula as an inducement for participation?	◯	◯	◯	◯
BOCES services meet my districts NEEDS is?	◯	◯	◯	◯

12. My EXPERIENCE with BOCES prior to being a superintendent, impacts my current PERCEPTION of BOCES services?

◯ Never ◯ Occasionally ◯ Frequently ◯ Always

13. PRIOR to being a superintendent, how would you rate your experience with BOCES?

◯ Very negative ◯ Negative ◯ Positive ◯ Very positive

14. To what extent has the recent economic recession changed your perception about the viability of:

	No change	Minimal change	Moderate change	Substantial change
Regionalized (collaborative) educational services in GENERAL	◯	◯	◯	◯
BOCES	◯	◯	◯	◯
Inter-municipal agreements w other unit of government	◯	◯	◯	◯
Consortia	◯	◯	◯	◯
District to district collaborations	◯	◯	◯	◯

Superintendent Perceptions of BOCES

Part 3-Perceptions and beliefs about specific BOCES programs in your BOCES....

The questions in this section are intended to be directed toward the services that your current BOCES provides.

15. To what extent do you believe the Central Office Leadership of your BOCES (i.e. District Superintendent, Deputy Superintendent(s), Assistant Superintendent(s), Directors or other similarly positioned individual):

	Never	Occasionally	Frequently	Always
Effectively communicates issues related to its' fiscal operations	◯	◯	◯	◯
Effectively communicates issues related to its' services	◯	◯	◯	◯
Develops innovative services	◯	◯	◯	◯
Develops new services timely	◯	◯	◯	◯
Provides effective leadership regarding state and regional issues	◯	◯	◯	◯
Operates with a customer service orientation	◯	◯	◯	◯
Understands the needs of its' component districts	◯	◯	◯	◯

16. Based on your PERCEPTIONS, please rate the following service attributes for the Career and Technical Education programs in your BOCES:

	Very Negative	Somewhat Negative	Somewhat Positive	Very Positive
Cost of service	◯	◯	◯	◯
Quality of interaction w/ BOCES Staff	◯	◯	◯	◯
Quality of service from BOCES Staff	◯	◯	◯	◯
Expertise of staff	◯	◯	◯	◯
Participants have adequate input	◯	◯	◯	◯
Clarity of sharing rules related to participation	◯	◯	◯	◯
Incentive aid as a critical inducement for participation	◯	◯	◯	◯
The programs in this area meet my needs	◯	◯	◯	◯

Superintendent Perceptions of BOCES

17. Based on your PERCEPTIONS, please rate the following service attributes for the Special Education Instructional programs in your BOCES:

	Very negative	Somewhat negative	Somewhat positive	Very positive
Cost of service	◯	◯	◯	◯
Quality of interaction w/ BOCES Staff	◯	◯	◯	◯
Quality of service from BOCES Staff	◯	◯	◯	◯
Expertise of staff	◯	◯	◯	◯
Participants have adequate input	◯	◯	◯	◯
Clarity of sharing rules related to participation	◯	◯	◯	◯
High Cost aid as a critical inducement for participation	◯	◯	◯	◯
The programs in this area meet my needs	◯	◯	◯	◯

18. Based on your perceptions, please rate the following service attributes for Related Services in your BOCES (Occupational Therapy, Speech Therapy, Physical Therapy, Social Worker etc.):

	Very negative	Somewhat negative	Somewhat positive	Very positive
Cost of service	◯	◯	◯	◯
Quality of interaction w/ BOCES Staff	◯	◯	◯	◯
Quality of service from BOCES Staff	◯	◯	◯	◯
Expertise of staff	◯	◯	◯	◯
Participants have adequate input	◯	◯	◯	◯
Clarity of sharing rules related to participation	◯	◯	◯	◯
Incentive aid as a critical inducement for participation	◯	◯	◯	◯
The programs in this area meet my needs	◯	◯	◯	◯

Superintendent Perceptions of BOCES

19. Based on your perceptions, please rate the following service attributes for the Instructional Staff Development programs in your BOCES (APPR guidance, Common Core training, RTTT services etc.):

	Very negative	Somewhat negative	Somewhat positive	Very Positive
Cost of service	◯	◯	◯	◯
Quality of interaction w BOCES Staff	◯	◯	◯	◯
Quality of service from BOCES Staff	◯	◯	◯	◯
Expertise of staff	◯	◯	◯	◯
Participants have adequate input	◯	◯	◯	◯
Clarity of sharing rules related to participation	◯	◯	◯	◯
Incentive aid as a critical inducement for participation	◯	◯	◯	◯
The programs in this area meet my needs	◯	◯	◯	◯

20. Based on your perceptions, please rate the following service attributes for the Instructional Technology service in your BOCES (Model Schools, Distance Learning etc.):

	Very negative	Somewhat negative	Somewhat positive	Very Positive
Cost of service	◯	◯	◯	◯
Quality of interaction w BOCES Staff	◯	◯	◯	◯
Quality of service from BOCES Staff	◯	◯	◯	◯
Expertise of staff	◯	◯	◯	◯
Participants have adequate input	◯	◯	◯	◯
Clarity of sharing rules related to participation	◯	◯	◯	◯
Incentive aid as a critical inducement for participation	◯	◯	◯	◯
The programs in this area meet my needs	◯	◯	◯	◯

Superintendent Perceptions of BOCES

21. Based on your perceptions, please rate the following service attributes for the Administrative Technology services provided by your REGIONAL INFORMATION CENTER. (LAN, WAN, Email systems, Student data systems, On-site Tech support etc):

	Very Negative	Somewhat negative	Somewhat positive	Very positive
Cost of service	◯	◯	◯	◯
Quality of interaction w BOCES Staff	◯	◯	◯	◯
Quality of service from BOCES Staff	◯	◯	◯	◯
Expertise of staff	◯	◯	◯	◯
Participants have adequate input	◯	◯	◯	◯
Clarity of sharing rules related to participation	◯	◯	◯	◯
Incentive aid as a critical inducement for participation	◯	◯	◯	◯
The programs in this area meet my needs	◯	◯	◯	◯

22. Based on your perceptions, please rate the following service attributes for the Management and Administrative services offered in your BOCES (Back office business services, Risk Management, Health insurance management, Communications & Public Relations, Labor Relations & Negotiations etc):

	Very negative	Somewhat negative	Somewhat positive	Very positive
Cost of service	◯	◯	◯	◯
Quality of interaction w/ BOCES Staff	◯	◯	◯	◯
Quality of service from BOCES Staff	◯	◯	◯	◯
Expertise of staff	◯	◯	◯	◯
Participants have adequate input	◯	◯	◯	◯
Clarity of sharing rules related to participation	◯	◯	◯	◯
Incentive aid as a critical inducement for participation	◯	◯	◯	◯
The programs in this area meet my needs	◯	◯	◯	◯

Superintendent Perceptions of BOCES

Part 4-Factors that impact decision making related to using BOCES (RQ2,3)

The questions in this section investigate certain factors or service attributes that affect a superintendents decision to use BOCES services.

23. Please indicate the degree to which the following factors or attributes impact your DECISION to use a BOCES service.

	Never	Occasionally	Frequently	Always
the COST of BOCES services.	◯	◯	◯	◯
the QUALITY of BOCES services.	◯	◯	◯	◯
the QUALITY of interaction w/BOCES staff.	◯	◯	◯	◯
the EXPERTISE of BOCES staff.	◯	◯	◯	◯
the PROCESSES in place for PARTICIPATION in services.	◯	◯	◯	◯
the CLARITY of SHARING rules related to participation.	◯	◯	◯	◯
the BOCES AID formula as an inducement for participation.	◯	◯	◯	◯
BOCES services meet my districts NEEDS.	◯	◯	◯	◯

24. My EXPERIENCE with BOCES prior to being a superintendent, impacts my DECISION to use BOCES services in my current position?

◯ Never ◯ Occasionally ◯ Frequently ◯ Always

25. To what extent does the potential reduction of personnel in your district impact your DECISION when deciding to use a BOCES service?

◯ Never ◯ Occasionally ◯ Frequently ◯ Always

26. If BOCES incentive aid were no longer available, to what extent would it impact the amount of BOCES services your district uses?

◯ Not at all ◯ Minimally ◯ Substantially ◯ Fully

Superintendent Perceptions of BOCES

27. In making future decisions on the use of BOCES services, please rank each of the following program areas that you are most likely to consider because of the overall effectiveness in meeting your needs.

	Not at all	Minimal	Substantially	A great deal
Career and Technical Education Programs	☐	☐	☐	☐
Special Education Instructional Programs	☐	☐	☐	☐
Related Service Programs	☐	☐	☐	☐
Instructional Staff Development	☐	☐	☐	☐
Instructional Technology Services	☐	☐	☐	☐
Administrative Technology Services	☐	☐	☐	☐
Management and Administrative Services	☐	☐	☐	☐

28. To what degree do you view BOCES as a strategic partner in helping your district solve its operational and educational challenges?

◯ Never ◯ Occasionally ◯ Frequently ◯ Always

Appendix F

Mean Scores for Service Attributes of BOCES Program Areas

Table 26 (Part 1)

Mean Scores for Service Attributes of BOCES Program Areas

	n	Mean	Std. Deviation
Career and technical education (SQ16)			
Cost of service	232	2.95	.734
Quality of interaction w/ BOCES staff	231	3.25	.629
Quality of service from BOCES staff	229	3.29	.619
Expertise of staff	230	3.20	.603
Participants have adequate input	231	2.99	.704
Clarity of sharing rules related to participation	230	3.12	.633
Incentive aid as a critical inducement for participation	230	3.13	.754
The programs in this area meet my needs	231	3.11	.689
Special education instructional programs (SQ17)			
Cost of service	233	2.33	.820
Quality of interaction w/ BOCES staff	232	2.94	.739
Quality of service from BOCES staff	232	2.95	.719
Expertise of staff	232	3.05	.653
Participants have adequate input	233	2.82	.734
Clarity of sharing rules related to participation	231	2.94	.685
High cost aid as a critical inducement for participation	231	2.94	.863
The programs in this area meet my needs	233	2.86	.787
Related service programs (SQ18)			
Cost of service	216	2.53	.829
Quality of interaction w/ BOCES staff	215	3.09	.627
Quality of service from BOCES staff	216	3.10	.624
Expertise of staff	215	3.13	.592
Participants have adequate input	216	2.93	.647
Clarity of sharing rules related to participation	211	2.96	.654
Incentive aid as a critical inducement for participation	213	2.99	.774
The programs in this area meet my needs	213	3.01	.694
Instructional staff development programs (SQ19)			
Cost of service	236	3.01	.840
Quality of interaction w BOCES staff	235	3.30	.788
Quality of service from BOCES staff	236	3.22	.850
Expertise of staff	234	3.24	.829
Participants have adequate input	236	3.15	.784
Clarity of sharing rules related to participation	234	3.17	.760
Incentive aid as a critical inducement for participation	232	3.09	.854
The programs in this area meet my needs	235	3.12	.890

Table 26 (Part 2)

Mean Scores for Service Attributes of BOCES Program Areas

	n	Mean	Std. Deviation
Instructional technology services (SQ20)			
Cost of service	227	2.79	.792
Quality of interaction w BOCES staff	226	3.16	.713
Quality of service from BOCES staff	225	3.16	.684
Expertise of staff	225	3.22	.729
Participants have adequate input	226	3.04	.726
Clarity of sharing rules related to participation	223	3.02	.744
Incentive aid as a critical inducement for participation	226	3.12	.739
The programs in this area meet my needs	226	3.05	.740
Administrative technology services provided by regional information center (SQ21)			
Cost of service	228	2.80	.798
Quality of interaction w BOCES staff	227	3.19	.700
Quality of service from BOCES staff	227	3.20	.704
Expertise of staff	227	3.28	.665
Participants have adequate input	226	3.02	.702
Clarity of sharing rules related to participation	227	3.07	.698
Incentive aid as a critical inducement for participation	227	3.16	.750
The programs in this area meet my needs	225	3.15	.697
Management and administrative services (SQ22)			
Cost of service	227	2.99	.735
Quality of interaction w/ BOCES staff	225	3.33	.680
Quality of service from BOCES staff	227	3.34	.688
Expertise of staff	226	3.35	.650
Participants have adequate input	226	3.26	.684
Clarity of sharing rules related to participation	226	3.18	.691
Incentive aid as a critical inducement for participation	225	3.20	.730
The programs in this area meet my needs	228	3.26	.678

Table 27 (Part 1)

Perceptions of Service Attributes for Selected BOCES Programs

	Very Negative		Somewhat Negative		Somewhat Positive		Very Positive	
Program and service attribute	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Career and technical education								
Cost of service	7	3.0%	47	20.3%	128	55.2%	50	21.6%
Quality of interaction w/ BOCES staff	2	0.9%	18	7.8%	132	57.1%	79	34.2%
Quality of service from BOCES staff	2	0.9%	14	6.1%	128	55.9%	85	37.1%
Expertise of staff	2	0.9%	17	7.4%	143	62.2%	68	29.6%
Participants have adequate input	7	3.0%	37	16.0%	138	59.7%	49	21.2%
Clarity of sharing rules	3	1.3%	25	10.9%	144	62.6%	58	25.2%
Aid as an inducement for participation	5	2.2%	37	16.1%	111	48.3%	77	33.5%
Programs meet my needs	5	2.2%	28	12.1%	134	58.0%	64	27.7%
Special education								
Cost of service	36	15.5%	99	42.5%	82	35.2%	16	6.9%
Quality of interaction w/ BOCES staff	9	3.9%	44	19.0%	132	56.9%	47	20.3%
Quality of service from BOCES staff	6	2.6%	48	20.7%	130	56.0%	48	20.7%
Expertise of staff	4	1.7%	32	13.8%	145	62.5%	51	22.0%
Participants have adequate input	7	3.0%	67	28.8%	121	51.9%	38	16.3%
Clarity of sharing rules	6	2.6%	44	19.0%	140	60.6%	41	17.7%
Aid as an inducement for participation	17	7.4%	42	18.2%	110	47.6%	62	26.8%
Programs meet my needs	11	4.7%	57	24.5%	118	50.6%	47	20.2%

Table 27 (Part 2)

Perceptions of Service Attributes for Selected BOCES Programs

	Very Negative		Somewhat Negative		Somewhat Positive		Very Positive	
Program and service attribute	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Related services								
Cost of service	24	11.1%	76	35.2%	93	43.1%	23	10.6%
Quality of interaction w/ BOCES staff	3	1.4%	24	11.2%	138	64.2%	50	23.3%
Quality of service from BOCES staff	3	1.4%	23	10.6%	139	64.4%	51	23.6%
Expertise of staff	2	0.9%	19	8.8%	142	66.0%	52	24.2%
Participants have adequate input	6	2.8%	35	16.2%	143	66.2%	32	14.8%
Clarity of sharing rules	6	2.8%	31	14.7%	139	65.9%	35	16.6%
Aid as an inducement for participation	11	5.2%	32	15.0%	119	55.9%	51	23.9%
Programs meet my needs	8	3.8%	26	12.2%	135	63.4%	44	20.7%
Instructional staff development								
Cost of service	12	5.1%	46	19.5%	106	44.9%	72	30.5%
Quality of interaction w/ BOCES staff	5	2.1%	33	14.0%	84	35.7%	113	48.1%
Quality of service from BOCES staff	8	3.4%	41	17.4%	79	33.5%	108	45.8%
Expertise of staff	7	3.0%	38	16.2%	82	35.0%	107	45.7%
Participants have adequate input	7	3.0%	36	15.3%	107	45.3%	86	36.4%
Clarity of sharing rules	7	3.0%	30	12.8%	114	48.7%	83	35.5%
Aid as an inducement for participation	14	6.0%	33	14.2%	104	44.8%	81	34.9%
Programs meet my needs	13	5.5%	41	17.4%	85	36.2%	96	40.9%
Instructional technology								
Cost of service	13	5.7%	61	26.9%	114	50.2%	39	17.2%
Quality of interaction w/ BOCES staff	5	2.2%	27	11.9%	121	53.5%	73	32.3%
Quality of service from BOCES staff	3	1.3%	28	12.4%	123	54.7%	71	31.6%
Expertise of staff	6	2.7%	22	9.8%	113	50.2%	84	37.3%
Participants have adequate input	8	3.5%	31	13.7%	131	58.0%	56	24.8%
Clarity of sharing rules	8	3.6%	35	15.7%	124	55.6%	56	25.1%
Aid as an inducement for participation	6	2.7%	32	14.2%	118	52.2%	70	31.0%
Programs meet my needs	8	3.5%	32	14.2%	126	55.8%	60	26.5%

Table 27 (Part 3)

Perceptions of Service Attributes for Selected BOCES Programs

	Very Negative		Somewhat Negative		Somewhat Positive		Very Positive	
Program and service attribute	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Administrative technology								
Cost of service	13	5.7%	61	26.8%	113	49.6%	41	18.0%
Quality of interaction w/ BOCES Staff	4	1.8%	26	11.5%	120	52.9%	77	33.9%
Quality of service from BOCES Staff	4	1.8%	26	11.5%	118	52.0%	79	34.8%
Expertise of staff	3	1.3%	18	7.9%	118	52.0%	88	38.8%
Participants have adequate input	4	1.8%	41	18.1%	127	56.2%	54	23.9%
Clarity of sharing rules	4	1.8%	36	15.9%	128	56.4%	59	26.0%
Aid as an inducement for participation	6	2.6%	30	13.2%	112	49.3%	79	34.8%
Programs meet my needs	5	2.2%	25	11.1%	126	56.0%	69	30.7%
Management & administrative services								
Cost of service	7	3.1%	41	18.1%	126	55.5%	53	23.3%
Quality of interaction w/ BOCES staff	2	0.9%	21	9.3%	103	45.8%	99	44.0%
Quality of service from BOCES staff	2	0.9%	22	9.7%	100	44.1%	103	45.4%
Expertise of staff	2	0.9%	16	7.1%	110	48.7%	98	43.4%
Participants have adequate input	2	0.9%	25	11.1%	112	49.6%	87	38.5%
Clarity of sharing rules	3	1.3%	28	12.4%	120	53.1%	75	33.2%
Aid as an inducement for participation	6	2.7%	24	10.7%	115	51.1%	80	35.6%
Programs meet my needs	3	1.3%	21	9.2%	117	51.3%	87	38.2%

Appendix G

List of Tables Cross-referenced with Research Questions and Survey Questions

Table 28

List of Tables Cross-referenced with Research Questions and Survey Questions

Table			Questions addressed	
#	Title and description	Type	Research	Survey
1	*District Demographic Information: Superintendent Experience, District Size & District Wealth*	Frequencies	Intro Info	1, 2, 3, 4, 5, 6
2	*School District Geographic Location*	Frequencies	Intro Info	7
3	*Service Attributes that Contribute to Effective Regionalized Education Services*	Frequencies	1	8
4	*Service Attributes which Contribute to the Effectiveness of BOCES Services*	Frequencies	1	9
5	*Frequencies; Overall Effectiveness of BOCES and Selected Service Attributes*	Frequencies	1	10, 11
6	*Mean Scores; Overall Effectiveness of BOCES and Selected Service attributes*	Means	1	10, 11
7	*Frequency of Leadership Attributes Displayed by BOCES*	Frequencies	1	15
8	*Mean Scores for Service Attributes by BOCES Programs*	Means	1	16, 17, 18, 19, 20, 21, 22
9	*Impact of Economic Recession on Perception of Shared Services*	Frequencies & means	1	14
10	*Pre-Superintendent Interactions with BOCES*	Frequencies	1	12, 13
11	*Degree to which Certain Factors Impact Superintendent Decisions to use BOCES Services*	Frequencies & means	2	23, 24, 25, 26
12	*Frequencies; Decision-making and Future use of BOCES Services*	Frequencies	2	27
13	*Mean scores; Decision-making and Future use of BOCES Services*	Means	2	27
14	*BOCES as a Strategic Partner*	Frequencies	3	28
15	*Relationships Between Decision Variables and BOCES as a Strategic Partner*	Chi square	3	28 vs. 23, 24, 25, 26
16	*BOCES Programs and BOCES as a Strategic Partner*	Chi square	3	28 vs. 27
17	*Effectiveness of BOCES by Selected Wealth Demographics*	Chi square	4	3 vs. 10, 11
18	*Table of Frequencies for Combined Wealth Ratio's*	Frequencies	4	4
19	*Correlations between Service Attributes and CWR*	Pearson Correlation	4	4 vs. 10, 11
20	*Effectiveness of BOCES by District Size Demographics*	Chi square	4	5, 6 vs. 10, 11
21	*Effectiveness of BOCES by Superintendent Experience*	Chi square	4	1, 2 vs. 10, 11
22	*Geographic Location and Perceptions of Overall BOCES Effectiveness*	Chi square	4	7 vs. 10
23	*Superintendent Perceptions of Effectiveness by Region*	Cross Tab	4	7 vs. 10

Appendix H

Simple Multiple Regression Tables

Table 29

Summary of Simple Regression for Variables Contributing to BOCES Effectiveness (SQ10 & 11)

	Effectiveness of BOCES		
Service attribute	B	SE B	Beta
Service & performance			
Quality of interaction with staff	0.083	0.069	0.078
Expertise of staff	0.035	0.073	0.033
Quality of service	0.280	0.08	0.270*
Service fits district needs	0.233	0.079	0.228*
Rules & regulations			
Participant input	0.121	0.084	0.095
Clarity of participation rules	0.016	0.072	0.014
Financial considerations			
Cost of services	0.156	0.058	0.158*
BOCES aid formula as inducement for participation	0.047	0.043	0.055
R2	0.560		
F	36.466*		

Note. *$p < .05$. **$p < .01$.

Table 30

Summary of Simple Regression for Leadership Attributes Contributing to BOCES Effectiveness (SQ10 & 15)

	Effectiveness of BOCES		
Leadership attribute	B	SE B	Beta
Effectively communicates issues related to its' fiscal operations	0.095	0.15	0.117*
Effectively communicates issues related to its' services	-0.084	0.086	-0.101
Develops innovative services	0.154	0.080	0.198*
Develops new services timely	0.040	0.083	0.050
Provides leadership regarding state & regional issues	0.060	0.066	0.081
Operates with a customer service orientation	0.103	0.077	0.140
Understands the needs of its' component districts	0.163	0.084	0.210*
R2	0.377		
F	19.389**		

Note. *$p < .05$. **$p < .001$.

Table 31

Summary of Simple Regression for Variables Contributing to BOCES Effectiveness (SQ10 & 28)

	Effectiveness of BOCES		
Partnership	B	SE B	Beta
Perception of overall effectiveness of BOCES	0.671	0.072	.527**
R2	0.277		
F	86.763**		

Note. *$p < .05$. **$p < .001$.

Table 32

Summary of Simple Regression for Variables Contributing to Strategic Partnerships with BOCES (SQ28 & 11)

	Strategic partnership with BOCES		
Service attribute	B	SE B	Beta
Service & performance			
Quality of interaction with staff	0.117	0.108	0.084
Expertise of staff	0.314	0.117	.224**
Quality of service	-0.032	0.130	-0.024
Service fits district needs	0.231	0.126	0.180
Rules & regulations			
Participant input	0.095	0.135	0.057
Clarity of participation rules	-0.128	0.115	-0.087
Financial considerations			
Cost of services	0.360	0.092	0.285**
BOCES aid formula as inducement for participation	-0.028	0.070	-0.025
R2	0.350		
F	14.404**		

Note. *$p < .05$. **$p < .01$.

Table 33

Summary of Simple Regression for Leadership Attributes Contributing to Strategic Partnerships with BOCES (SQ28 & 15)

	Strategic partnerships with BOCES		
Leadership attributes	B	SE B	Beta
Effectively communicates issues related to its' fiscal operations	0.201	0.102	0.198*
Effectively Communicates issues related to its' services	0.05	0.111	0.047
Develops innovative services	0.121	0.103	0.124*
Develops new services timely	0.125	0.107	0.123*
Provides leadership regarding state & regional issues	0.041	0.087	0.043
Operates with a customer service orientation	0.133	0.099	0.143*
Understands the needs of its' component districts	0.000	0.108	0.000
R2	0.346		
F	16.886**		

Note. *$p < .05$. **$p < .001$.

Appendix I

Cross Tabulation Data Tables

Table 34 (Part 1)

Relationships Between Decision Variables and BOCES as a Strategic Partner (Supports Table 15)

	BOCES as a strategic partner														
	N					Row frequencies					Column frequencies				
Decision variable	N	O	F	A	T	N	O	F	A	T	N	O	F	A	T
Service & performance															
Quality of interaction with staff															
Never	0	0	1	0	1	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.9%	0.0%	0.4%
Occasionally	1	12	13	2	28	3.6%	42.9%	46.4%	7.1%	100.0%	10.0%	25.0%	12.1%	2.9%	12.0%
Frequently	5	26	70	34	135	3.7%	19.3%	51.9%	25.2%	100.0%	50.0%	54.2%	65.4%	50.0%	57.9%
Always	4	10	23	32	69	5.8%	14.5%	33.3%	46.4%	100.0%	40.0%	20.8%	21.5%	47.1%	29.6%
Total	10	48	107	68	233	4.3%	20.6%	45.9%	29.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Quality of services															
Never	0	0	1	0	1	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.9%	0.0%	0.4%
Occasionally	1	6	5	0	12	8.3%	50.0%	41.7%	0.0%	100.0%	10.0%	12.8%	4.7%	0.0%	5.2%
Frequently	5	18	46	19	88	5.7%	20.5%	52.3%	21.6%	100.0%	50.0%	38.3%	43.0%	27.9%	37.9%
Always	4	23	55	49	131	3.1%	17.6%	42.0%	37.4%	100.0%	40.0%	48.9%	51.4%	72.1%	56.5%
Total	10	47	107	68	232	4.3%	20.3%	46.1%	29.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Expertise of staff															
Never	0	0	1	0	1	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.9%	0.0%	0.4%
Occasionally	1	11	8	0	20	5.0%	55.0%	40.0%	0.0%	100.0%	10.0%	22.9%	7.5%	0.0%	8.6%
Frequently	4	21	60	30	115	3.5%	18.3%	52.2%	26.1%	100.0%	40.0%	43.8%	56.1%	44.1%	49.4%
Always	5	16	38	38	97	5.2%	16.5%	39.2%	39.2%	100.0%	50.0%	33.3%	35.5%	55.9%	41.6%
Total	10	48	107	68	233	4.3%	20.6%	45.9%	29.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Services meet district's needs															
Never	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Occasionally	0	11	4	0	15	0.0%	73.3%	26.7%	0.0%	100.0%	0.0%	23.4%	3.8%	0.0%	6.5%
Frequently	3	15	47	21	86	3.5%	17.4%	54.7%	24.4%	100.0%	30.0%	31.9%	44.3%	30.9%	37.2%
Always	7	21	55	47	130	5.4%	16.2%	42.3%	36.2%	100.0%	70.0%	44.7%	51.9%	69.1%	56.3%
Total	10	47	106	68	231	4.3%	20.3%	45.9%	29.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rules & regulations															
Processes in place for participation															
Never	0	2	5	0	7	0.0%	28.6%	71.4%	0.0%	100.0%	0.0%	4.2%	4.7%	0.0%	3.0%
Occasionally	5	14	27	4	50	10.0%	28.0%	54.0%	8.0%	100.0%	50.0%	29.2%	25.2%	5.9%	21.5%
Frequently	4	26	57	47	134	3.0%	19.4%	42.5%	35.1%	100.0%	40.0%	54.2%	53.3%	69.1%	57.5%
Always	1	6	18	17	42	2.4%	14.3%	42.9%	40.5%	100.0%	10.0%	12.5%	16.8%	25.0%	18.0%
Total	10	48	107	68	233	4.3%	20.6%	45.9%	29.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Clarity of rules															
Never	0	3	5	0	8	0.0%	37.5%	62.5%	0.0%	100.0%	0.0%	6.4%	4.7%	0.0%	3.4%
Occasionally	5	20	27	9	61	8.2%	32.8%	44.3%	14.8%	100.0%	50.0%	42.6%	25.2%	13.2%	26.3%
Frequently	4	21	64	42	131	3.1%	16.0%	48.9%	32.1%	100.0%	40.0%	44.7%	59.8%	61.8%	56.5%
Always	1	3	11	17	32	3.1%	9.4%	34.4%	53.1%	100.0%	10.0%	6.4%	10.3%	25.0%	13.8%
Total	10	47	107	68	232	4.3%	20.3%	46.1%	29.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. N = Never; O = Occasionally; F = Frequently; A = Always; T = Total.

Table 34 (Part 2)

Relationships Between Decision Variables and BOCES as a Strategic Partner (Supports Table 15)

	BOCES as a strategic partner														
	N					Row frequencies					Column frequencies				
Decision variable	N	O	F	A	T	N	O	F	A	T	N	O	F	A	T
Financial considerations															
Cost of service															
Never	0	0	1	0	1	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.9%	0.0%	0.4%
Occasionally	1	10	6	6	23	4.3%	43.5%	26.1%	26.1%	100.0%	10.0%	20.8%	5.6%	8.8%	9.9%
Frequently	2	19	58	23	102	2.0%	18.6%	56.9%	22.5%	100.0%	20.0%	39.6%	54.2%	33.8%	43.8%
Always	7	19	42	39	107	6.5%	17.8%	39.3%	36.4%	100.0%	70.0%	39.6%	39.3%	57.4%	45.9%
Total	10	48	107	68	233	4.3%	20.6%	45.9%	29.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
BOCES aid as an inducement for participation															
Never	0	2	1	0	3	0.0%	66.7%	33.3%	0.0%	100.0%	0.0%	4.2%	0.9%	0.0%	1.3%
Occasionally	2	10	13	5	30	6.7%	33.3%	43.3%	16.7%	100.0%	20.0%	20.8%	12.1%	7.5%	12.9%
Frequently	2	19	70	23	114	1.8%	16.7%	61.4%	20.2%	100.0%	20.0%	39.6%	65.4%	34.3%	49.1%
Always	6	17	23	39	85	7.1%	20.0%	27.1%	45.9%	100.0%	60.0%	35.4%	21.5%	58.2%	36.6%
Total	10	48	107	67	232	4.3%	20.7%	46.1%	28.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
District operational considerations															
Experience prior to being a superintendent															
Never	2	12	22	10	46	4.3%	26.1%	47.8%	21.7%	100.0%	20.0%	25.0%	21.0%	14.9%	20.0%
Occasionally	7	12	45	19	83	8.4%	14.5%	54.2%	22.9%	100.0%	70.0%	25.0%	42.9%	28.4%	36.1%
Frequently	1	19	32	25	77	1.3%	24.7%	41.6%	32.5%	100.0%	10.0%	39.6%	30.5%	37.3%	33.5%
Always	0	5	6	13	24	0.0%	20.8%	25.0%	54.2%	100.0%	0.0%	10.4%	5.7%	19.4%	10.4%
Total	10	48	105	67	230	4.3%	20.9%	45.7%	29.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Potential reduction of my district's personnel															
Never	0	7	5	1	13	0.0%	53.8%	38.5%	7.7%	100.0%	0.0%	14.6%	4.7%	1.5%	5.7%
Occasionally	5	25	44	19	93	5.4%	26.9%	47.3%	20.4%	100.0%	50.0%	52.1%	41.5%	28.8%	40.4%
Frequently	2	13	35	31	81	2.5%	16.0%	43.2%	38.3%	100.0%	20.0%	27.1%	33.0%	47.0%	35.2%
Always	3	3	22	15	43	7.0%	7.0%	51.2%	34.9%	100.0%	30.0%	6.3%	20.8%	22.7%	18.7%
Total	10	48	106	66	230	4.3%	20.9%	46.1%	28.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Elimination of BOCES aid															
Never	1	1	1	0	3	33.3%	33.3%	33.3%	0.0%	100.0%	10.0%	2.1%	0.9%	0.0%	1.3%
Occasionally	2	16	21	7	46	4.3%	34.8%	45.7%	15.2%	100.0%	20.0%	33.3%	19.8%	10.3%	19.8%
Frequently	3	16	66	45	130	2.3%	12.3%	50.8%	34.6%	100.0%	30.0%	33.3%	62.3%	66.2%	56.0%
Always	4	15	18	16	53	7.5%	28.3%	34.0%	30.2%	100.0%	40.0%	31.3%	17.0%	23.5%	22.8%
Total	10	48	106	68	232	4.3%	20.7%	45.7%	29.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. N = Never. O = Occasionally. F = Frequently. A = Always. T = Total.

Table 35

Relationships Between BOCES Programs and BOCES as a Strategic Partner (Supports Table 16)

	BOCES as a strategic partner														
	N					Row frequencies					Column frequencies				
BOCES program	N	O	F	A	T	N	O	F	A	T	N	O	F	A	T
Instructional staff development															
Not at all	2	0	1	0	3	66.7%	0.0%	33.3%	0.0%	100.0%	20.0%	0.0%	0.9%	0.0%	1.3%
Occasionally	2	19	26	6	53	3.8%	35.8%	49.1%	11.3%	100.0%	20.0%	40.4%	24.5%	8.8%	22.9%
Frequently	3	23	55	33	114	2.6%	20.2%	48.2%	28.9%	100.0%	30.0%	48.9%	51.9%	48.5%	49.4%
Very frequently	3	5	24	29	61	4.9%	8.2%	39.3%	47.5%	100.0%	30.0%	10.6%	22.6%	42.6%	26.4%
Total	10	47	106	68	231	4.3%	20.3%	45.9%	29.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Management and administrative services															
Not at all	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Occasionally	7	25	34	11	77	9.1%	32.5%	44.2%	14.3%	100.0%	70.0%	53.2%	31.8%	16.2%	33.2%
Frequently	1	18	47	26	92	1.1%	19.6%	51.1%	28.3%	100.0%	10.0%	38.3%	43.9%	38.2%	39.7%
Very frequently	2	4	26	31	63	3.2%	6.3%	41.3%	49.2%	100.0%	20.0%	8.5%	24.3%	45.6%	27.2%
Total	10	47	107	68	232	4.3%	20.3%	46.1%	29.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Special education															
Not at all	1	4	1	1	7	14.3%	57.1%	14.3%	14.3%	100.0%	10.0%	8.3%	0.9%	1.5%	3.0%
Occasionally	3	20	23	9	55	5.5%	36.4%	41.8%	16.4%	100.0%	30.0%	41.7%	21.5%	13.2%	23.6%
Frequently	4	15	48	27	94	4.3%	16.0%	51.1%	28.7%	100.0%	40.0%	31.3%	44.9%	39.7%	40.3%
Very frequently	2	9	35	31	77	2.6%	11.7%	45.5%	40.3%	100.0%	20.0%	18.8%	32.7%	45.6%	33.0%
Total	10	48	107	68	233	4.3%	20.6%	45.9%	29.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Administrative technology															
Not at all	1	1	1	0	3	33.3%	33.3%	33.3%	0.0%	100.0%	14.3%	2.4%	1.1%	0.0%	1.4%
Occasionally	1	12	15	7	35	2.9%	34.3%	42.9%	20.0%	100.0%	14.3%	28.6%	16.0%	10.4%	16.7%
Frequently	4	23	53	29	109	3.7%	21.1%	48.6%	26.6%	100.0%	57.1%	54.8%	56.4%	43.3%	51.9%
Very frequently	1	6	25	31	63	1.6%	9.5%	39.7%	49.2%	100.0%	14.3%	14.3%	26.6%	46.3%	30.0%
Total	7	42	94	67	210	3.3%	20.0%	44.8%	31.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Instructional technology															
Not at all	0	2	0	0	2	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	4.7%	0.0%	0.0%	1.0%
Occasionally	2	8	10	4	24	8.3%	33.3%	41.7%	16.7%	100.0%	22.2%	18.6%	11.4%	5.8%	11.5%
Frequently	3	23	55	33	114	2.6%	20.2%	48.2%	28.9%	100.0%	33.3%	53.5%	62.5%	47.8%	54.5%
Very frequently	4	10	23	32	69	5.8%	14.5%	33.3%	46.4%	100.0%	44.4%	23.3%	26.1%	46.4%	33.0%
Total	9	43	88	69	209	4.3%	20.6%	42.1%	33.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Related services															
Not at all	1	2	2	1	6	16.7%	33.3%	33.3%	16.7%	100.0%	11.1%	4.8%	2.4%	1.6%	3.1%
Occasionally	1	17	19	5	42	2.4%	40.5%	45.2%	11.9%	100.0%	11.1%	40.5%	23.2%	7.9%	21.4%
Frequently	5	18	46	37	106	4.7%	17.0%	43.4%	34.9%	100.0%	55.6%	42.9%	56.1%	58.7%	54.1%
Very frequently	2	5	15	20	42	4.8%	11.9%	35.7%	47.6%	100.0%	22.2%	11.9%	18.3%	31.7%	21.4%
Total	9	42	82	63	196	4.6%	21.4%	41.8%	32.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Career and technical education															
Not at all	0	0	1	0	1	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.9%	0.0%	0.4%
Occasionally	1	12	13	2	28	3.6%	42.9%	46.4%	7.1%	100.0%	10.0%	25.0%	12.1%	2.9%	12.0%
Frequently	5	26	70	34	135	3.7%	19.3%	51.9%	25.2%	100.0%	50.0%	54.2%	65.4%	50.0%	57.9%
Very frequently	4	10	23	32	69	5.8%	14.5%	33.3%	46.4%	100.0%	40.0%	20.8%	21.5%	47.1%	29.6%
Total	10	48	107	68	233	4.3%	20.6%	45.9%	29.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. N = Never; O = Occasionally; F = Frequently; A = Always; T = Total.

Table 36 (Part 1)

Relationships Between Effectiveness of BOCES and Need-to-Resource Capacity (Supports Table 17)

	Need-to-resource capacity														
	N					Row frequencies					Column frequencies				
Effectiveness of BOCES	VN	N	P	VP	T	VN	N	P	VP	T	VN	N	P	VP	T
Overall organizational effectiveness															
High need-urban/suburban	0	0	18	4	22	0.0%	0.0%	81.8%	18.2%	100.0%	0.0%	0.0%	12.7%	4.9%	8.9%
High need-rural	2	9	60	39	110	1.8%	8.2%	54.5%	35.5%	100.0%	40.0%	47.4%	42.3%	47.6%	44.4%
Average need	2	10	43	35	90	2.2%	11.1%	47.8%	38.9%	100.0%	40.0%	52.6%	30.3%	42.7%	36.3%
Low need	1	0	21	4	26	3.8%	0.0%	80.8%	15.4%	100.0%	20.0%	0.0%	14.8%	4.9%	10.5%
Total	5	19	142	82	248	2.0%	7.7%	57.3%	33.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Service & performance															
Quality of interaction with staff															
High need-urban/suburban	0	1	17	3	21	0.0%	4.8%	81.0%	14.3%	100.0%	0.0%	3.3%	10.3%	6.1%	8.4%
High need-rural	2	15	74	20	111	1.8%	13.5%	66.7%	18.0%	100.0%	33.3%	50.0%	44.8%	40.8%	44.4%
Average need	3	13	54	22	92	3.3%	14.1%	58.7%	23.9%	100.0%	50.0%	43.3%	32.7%	44.9%	36.8%
Low need	1	1	20	4	26	3.8%	3.8%	76.9%	15.4%	100.0%	16.7%	3.3%	12.1%	8.2%	10.4%
Total	6	30	165	49	250	2.4%	12.0%	66.0%	19.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Quality of services from BOCES staff															
High need-urban/suburban	0	2	13	6	21	0.0%	9.5%	61.9%	28.6%	100.0%	0.0%	8.7%	8.8%	7.6%	8.4%
High need-rural	1	10	66	35	112	0.9%	8.9%	58.9%	31.3%	100.0%	100.0%	43.5%	44.6%	44.3%	44.6%
Average need	0	9	54	29	92	0.0%	9.8%	58.7%	31.5%	100.0%	0.0%	39.1%	36.5%	36.7%	36.7%
Low need	0	2	15	9	26	0.0%	7.7%	57.7%	34.6%	100.0%	0.0%	8.7%	10.1%	11.4%	10.4%
Total	1	23	148	79	251	0.4%	9.2%	59.0%	31.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Expertise of staff															
High need-urban/suburban	1	2	16	2	21	4.8%	9.5%	76.2%	9.5%	100.0%	50.0%	5.6%	9.9%	3.9%	8.4%
High need-rural	1	18	71	23	113	0.9%	15.9%	62.8%	20.4%	100.0%	50.0%	50.0%	43.8%	45.1%	45.0%
Average need	0	13	57	21	91	0.0%	14.3%	62.6%	23.1%	100.0%	0.0%	36.1%	35.2%	41.2%	36.3%
Low need	0	3	18	5	26	0.0%	11.5%	69.2%	19.2%	100.0%	0.0%	8.3%	11.1%	9.8%	10.4%
Total	2	36	162	51	251	0.8%	14.3%	64.5%	20.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Services meet district's needs															
High need-urban/suburban	0	2	15	4	21	0.0%	9.5%	71.4%	19.0%	100.0%	0.0%	6.3%	9.2%	8.0%	8.4%
High need-rural	3	16	70	23	112	2.7%	14.3%	62.5%	20.5%	100.0%	50.0%	50.0%	42.9%	46.0%	44.6%
Average need	2	12	58	20	92	2.2%	13.0%	63.0%	21.7%	100.0%	33.3%	37.5%	35.6%	40.0%	36.7%
Low need	1	2	20	3	26	3.8%	7.7%	76.9%	11.5%	100.0%	16.7%	6.3%	12.3%	6.0%	10.4%
Total	6	32	163	50	251	2.4%	12.7%	64.9%	19.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. VN = Very negative; N = Negative; P = Positive; VP = Very Positive; T = Total.

Table 36 (Part 2)

Relationships Between Effectiveness of BOCES and Need-to-Resource Capacity (Supports Table 17)

	Need-to-resource capacity														
	N					Row frequencies					Column frequencies				
Effectiveness of BOCES	VN	N	P	VP	T	VN	N	P	VP	T	VN	N	P	VP	T
Rules & regulations															
Participants have adequate input															
High need-urban/suburban	0	1	18	2	21	0.0%	4.8%	85.7%	9.5%	100.0%	0.0%	4.5%	9.8%	4.5%	8.4%
High need-rural	0	12	77	23	112	0.0%	10.7%	68.8%	20.5%	100.0%	0.0%	54.5%	41.8%	52.3%	44.6%
Average need	1	8	67	16	92	1.1%	8.7%	72.8%	17.4%	100.0%	100.0%	36.4%	36.4%	36.4%	36.7%
Low need	0	1	22	3	26	0.0%	3.8%	84.6%	11.5%	100.0%	0.0%	4.5%	12.0%	6.8%	10.4%
Total	1	22	184	44	251	0.4%	8.8%	73.3%	17.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Clarity of rules															
High need-urban/suburban	1	2	17	1	21	4.8%	9.5%	81.0%	4.8%	100.0%	33.3%	5.7%	9.6%	2.9%	8.4%
High need-rural	1	12	81	18	112	0.9%	10.7%	72.3%	16.1%	100.0%	33.3%	34.3%	45.8%	52.9%	45.0%
Average need	1	16	62	12	91	1.1%	17.6%	68.1%	13.2%	100.0%	33.3%	45.7%	35.0%	35.3%	36.5%
Low need	0	5	17	3	25	0.0%	20.0%	68.0%	12.0%	100.0%	0.0%	14.3%	9.6%	8.8%	10.0%
Total	3	35	177	34	249	1.2%	14.1%	71.1%	13.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Financial considerations															
Cost of service															
High need-urban/suburban	1	7	13	0	21	4.8%	33.3%	61.9%	0.0%	100.0%	8.3%	9.3%	8.8%	0.0%	8.4%
High need-rural	7	25	71	8	111	6.3%	22.5%	64.0%	7.2%	100.0%	58.3%	33.3%	48.3%	53.3%	44.6%
Average need	3	32	51	6	92	3.3%	34.8%	55.4%	6.5%	100.0%	25.0%	42.7%	34.7%	40.0%	36.9%
Low need	1	11	12	1	25	4.0%	44.0%	48.0%	4.0%	100.0%	8.3%	14.7%	8.2%	6.7%	10.0%
Total	12	75	147	15	249	4.8%	30.1%	59.0%	6.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
BOCES aid as an inducement for participation															
High need-urban/suburban	0	4	10	7	21	0.0%	19.0%	47.6%	33.3%	100.0%	0.0%	9.8%	7.9%	9.2%	8.4%
High need-rural	5	9	55	43	112	4.5%	8.0%	49.1%	38.4%	100.0%	83.3%	22.0%	43.3%	56.6%	44.8%
Average need	1	16	49	25	91	1.1%	17.6%	53.8%	27.5%	100.0%	16.7%	39.0%	38.6%	32.9%	36.4%
Low need	0	12	13	1	26	0.0%	46.2%	50.0%	3.8%	100.0%	0.0%	29.3%	10.2%	1.3%	10.4%
Total	6	41	127	76	250	2.4%	16.4%	50.8%	30.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. VN = Very negative; N = Negative; P = Positive; VP = Very Positive; T = Total.

Table 37 (Part 1)

Relationships Between Effectiveness of BOCES and Enrollment Size (Supports Table 20)

	Enrollment size														
	N					Row frequencies					Column frequencies				
Effectiveness of BOCES	VN	N	P	VP	T	VN	N	P	VP	T	VN	N	P	VP	T
Overall organizational effectiveness															
0-1500	3	15	77	49	144	2.1%	10.4%	53.5%	34.0%	100.0%	60.0%	78.9%	53.8%	60.5%	58.1%
1501-3000	1	2	33	18	54	1.9%	3.7%	61.1%	33.3%	100.0%	20.0%	10.5%	23.1%	22.2%	21.8%
3001-6000	0	1	23	11	35	0.0%	2.9%	65.7%	31.4%	100.0%	0.0%	5.3%	16.1%	13.6%	14.1%
6001-9000	0	1	6	1	8	0.0%	12.5%	75.0%	12.5%	100.0%	0.0%	5.3%	4.2%	1.2%	3.2%
More than 9000	1	0	4	2	7	14.3%	0.0%	57.1%	28.6%	100.0%	20.0%	0.0%	2.8%	2.5%	2.8%
Total	5	19	143	81	248	2.0%	7.7%	57.7%	32.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Service & performance															
Quality of interaction with staff	1	13	92	42	148	0.7%	8.8%	62.2%	28.4%	100.0%	100.0%	56.5%	60.9%	54.5%	58.7%
0-1500	0	5	29	19	53	0.0%	9.4%	54.7%	35.8%	100.0%	0.0%	21.7%	19.2%	24.7%	21.0%
1501-3000	0	2	20	13	35	0.0%	5.7%	57.1%	37.1%	100.0%	0.0%	8.7%	13.2%	16.9%	13.9%
3001-6000	0	1	6	2	9	0.0%	11.1%	66.7%	22.2%	100.0%	0.0%	4.3%	4.0%	2.6%	3.6%
6001-9000	0	2	4	1	7	0.0%	28.6%	57.1%	14.3%	100.0%	0.0%	8.7%	2.6%	1.3%	2.8%
More than 9000	1	23	151	77	252	0.4%	9.1%	59.9%	30.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total															
Quality of service from BOCES staff															
0-1500	4	21	95	28	148	2.7%	14.2%	64.2%	18.9%	100.0%	66.7%	70.0%	56.9%	58.3%	59.0%
1501-3000	1	5	34	12	52	1.9%	9.6%	65.4%	23.1%	100.0%	16.7%	16.7%	20.4%	25.0%	20.7%
3001-6000	0	3	26	6	35	0.0%	8.6%	74.3%	17.1%	100.0%	0.0%	10.0%	15.6%	12.5%	13.9%
6001-9000	0	1	7	1	9	0.0%	11.1%	77.8%	11.1%	100.0%	0.0%	3.3%	4.2%	2.1%	3.6%
More than 9000	1	0	5	1	7	14.3%	0.0%	71.4%	14.3%	100.0%	16.7%	0.0%	3.0%	2.1%	2.8%
Total	6	30	167	48	251	2.4%	12.0%	66.5%	19.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Expertise of staff															
0-1500	1	27	93	27	148	0.7%	18.2%	62.8%	18.2%	100.0%	50.0%	73.0%	57.1%	54.0%	58.7%
1501-3000	0	3	36	14	53	0.0%	5.7%	67.9%	26.4%	100.0%	0.0%	8.1%	22.1%	28.0%	21.0%
3001-6000	0	3	25	7	35	0.0%	8.6%	71.4%	20.0%	100.0%	0.0%	8.1%	15.3%	14.0%	13.9%
6001-9000	1	1	6	1	9	11.1%	11.1%	66.7%	11.1%	100.0%	50.0%	2.7%	3.7%	2.0%	3.6%
More than 9000	0	3	3	1	7	0.0%	42.9%	42.9%	14.3%	100.0%	0.0%	8.1%	1.8%	2.0%	2.8%
Total	2	37	163	50	252	0.8%	14.7%	64.7%	19.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Services meet district's needs															
0-1500	4	22	93	29	148	2.7%	14.9%	62.8%	19.6%	100.0%	66.7%	66.7%	56.7%	59.2%	58.7%
1501-3000	1	5	37	10	53	1.9%	9.4%	69.8%	18.9%	100.0%	16.7%	15.2%	22.6%	20.4%	21.0%
3001-6000	0	4	23	8	35	0.0%	11.4%	65.7%	22.9%	100.0%	0.0%	12.1%	14.0%	16.3%	13.9%
6001-9000	0	1	7	1	9	0.0%	11.1%	77.8%	11.1%	100.0%	0.0%	3.0%	4.3%	2.0%	3.6%
More than 9000	1	1	4	1	7	14.3%	14.3%	57.1%	14.3%	100.0%	16.7%	3.0%	2.4%	2.0%	2.8%
Total	6	33	164	49	252	2.4%	13.1%	65.1%	19.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. VN = Very negative; N = Negative; P = Positive; VP = Very Positive; T = Total.

Table 37 (Part 2)

Relationships Between Effectiveness of BOCES and Enrollment Size (Supports Table 20)

	Enrollment size														
	N					Row frequencies					Column frequencies				
Effectiveness of BOCES	VN	N	P	VP	T	VN	N	P	VP	T	VN	N	P	VP	T
Rules & regulations															
Participants have adequate input															
0-1500	1	15	107	25	148	0.7%	10.1%	72.3%	16.9%	100.0%	100.0%	65.2%	57.8%	58.1%	58.7%
1501-3000	0	4	42	7	53	0.0%	7.5%	79.2%	13.2%	100.0%	0.0%	17.4%	22.7%	16.3%	21.0%
3001-6000	0	2	25	8	35	0.0%	5.7%	71.4%	22.9%	100.0%	0.0%	8.7%	13.5%	18.6%	13.9%
6001-9000	0	2	5	2	9	0.0%	22.2%	55.6%	22.2%	100.0%	0.0%	8.7%	2.7%	4.7%	3.6%
More than 9000	0	0	6	1	7	0.0%	0.0%	85.7%	14.3%	100.0%	0.0%	0.0%	3.2%	2.3%	2.8%
Total	1	23	185	43	252	0.4%	9.1%	73.4%	17.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Clarity of sharing rules															
0-1500	2	16	107	20	145	1.4%	11.0%	73.8%	13.8%	100.0%	66.7%	47.1%	59.8%	60.6%	58.2%
1501-3000	0	10	40	3	53	0.0%	18.9%	75.5%	5.7%	100.0%	0.0%	29.4%	22.3%	9.1%	21.3%
3001-6000	0	4	23	8	35	0.0%	11.4%	65.7%	22.9%	100.0%	0.0%	11.8%	12.8%	24.2%	14.1%
6001-9000	1	2	5	1	9	11.1%	22.2%	55.6%	11.1%	100.0%	33.3%	5.9%	2.8%	3.0%	3.6%
More than 9000	0	2	4	1	7	0.0%	28.6%	57.1%	14.3%	100.0%	0.0%	5.9%	2.2%	3.0%	2.8%
Total	3	34	179	33	249	1.2%	13.7%	71.9%	13.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Financial considerations															
Cost of service															
0-1500	7	43	87	9	146	4.8%	29.5%	59.6%	6.2%	100.0%	58.3%	55.8%	59.2%	64.3%	58.4%
1501-3000	2	16	32	3	53	3.8%	30.2%	60.4%	5.7%	100.0%	16.7%	20.8%	21.8%	21.4%	21.2%
3001-6000	1	12	21	1	35	2.9%	34.3%	60.0%	2.9%	100.0%	8.3%	15.6%	14.3%	7.1%	14.0%
6001-9000	0	3	6	0	9	0.0%	33.3%	66.7%	0.0%	100.0%	0.0%	3.9%	4.1%	0.0%	3.6%
More than 9000	2	3	1	1	7	28.6%	42.9%	14.3%	14.3%	100.0%	16.7%	3.9%	0.7%	7.1%	2.8%
Total	12	77	147	14	250	4.8%	30.8%	58.8%	5.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
BOCES aid as an inducement for participation															
0-1500	7	23	69	49	148	4.7%	15.5%	46.6%	33.1%	100.0%	100.0%	53.5%	54.8%	65.3%	59.0%
1501-3000	0	8	34	11	53	0.0%	15.1%	64.2%	20.8%	100.0%	0.0%	18.6%	27.0%	14.7%	21.1%
3001-6000	0	8	15	11	34	0.0%	23.5%	44.1%	32.4%	100.0%	0.0%	18.6%	11.9%	14.7%	13.5%
6001-9000	0	1	5	3	9	0.0%	11.1%	55.6%	33.3%	100.0%	0.0%	2.3%	4.0%	4.0%	3.6%
More than 9000	0	3	3	1	7	0.0%	42.9%	42.9%	14.3%	100.0%	0.0%	7.0%	2.4%	1.3%	2.8%
Total	7	43	126	75	251	2.8%	17.1%	50.2%	29.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. VN = Very negative; N = Negative; P = Positive; VP = Very Positive; T = Total.

Table 38 (Part 1)

Relationships Between Effectiveness of BOCES and Budget Size (Supports Table 20)

	Budget size														
	N					Row frequencies					Column frequencies				
Effectiveness of BOCES	VN	N	P	VP	T	VN	N	P	VP	T	VN	N	P	VP	T
Overall organizational effectiveness															
$0-$25 million	3	15	67	46	131	2.3%	11.5%	51.1%	35.1%	100.0%	60.0%	78.9%	46.5%	56.8%	52.6%
$26-$50 million	0	1	35	22	58	0.0%	1.7%	60.3%	37.9%	100.0%	0.0%	5.3%	24.3%	27.2%	23.3%
$51-$75 million	1	2	17	2	22	4.5%	9.1%	77.3%	9.1%	100.0%	20.0%	10.5%	11.8%	2.5%	8.8%
$76-$100 million	0	0	8	5	13	0.0%	0.0%	61.5%	38.5%	100.0%	0.0%	0.0%	5.6%	6.2%	5.2%
$100 million or more	1	1	17	6	25	4.0%	4.0%	68.0%	24.0%	100.0%	20.0%	5.3%	11.8%	7.4%	10.0%
Total	5	19	144	81	249	2.0%	7.6%	57.8%	32.5%	100.0%	100.0%	100.0%	100.0%	100.0%	90.0%
Service & performance															
Quality of interaction with staff	1	12	83	36	132	0.8%	9.1%	62.9%	27.3%	100.0%	100.0%	52.2%	55.0%	46.8%	52.4%
$0-$25 million	0	4	30	25	59	0.0%	6.8%	50.8%	42.4%	100.0%	0.0%	17.4%	19.9%	32.5%	23.4%
$26-$50 million	0	3	16	3	22	0.0%	13.6%	72.7%	13.6%	100.0%	0.0%	13.0%	10.6%	3.9%	8.7%
$51-$75 million	0	1	5	7	13	0.0%	7.7%	38.5%	53.8%	100.0%	0.0%	4.3%	3.3%	9.1%	5.2%
$76-$100 million	0	3	17	6	26	0.0%	11.5%	65.4%	23.1%	100.0%	0.0%	13.0%	11.3%	7.8%	10.3%
$100 million or more	1	23	151	77	252	0.4%	9.1%	59.9%	30.6%	100.0%	100.0%	100.0%	100.0%	100.0%	89.7%
Total															
Quality of service from BOCES staff															
$0-$25 million	4	20	83	25	132	3.0%	15.2%	62.9%	18.9%	100.0%	66.7%	66.7%	49.7%	52.1%	52.6%
$26-$50 million	0	5	38	15	58	0.0%	8.6%	65.5%	25.9%	100.0%	0.0%	16.7%	22.8%	31.3%	23.1%
$51-$75 million	1	3	17	1	22	4.5%	13.6%	77.3%	4.5%	100.0%	16.7%	10.0%	10.2%	2.1%	8.8%
$76-$100 million	0	1	9	3	13	0.0%	7.7%	69.2%	23.1%	100.0%	0.0%	3.3%	5.4%	6.3%	5.2%
$100 million or more	1	1	20	4	26	3.8%	3.8%	76.9%	15.4%	100.0%	16.7%	3.3%	12.0%	8.3%	10.4%
Total	6	30	167	48	251	2.4%	12.0%	66.5%	19.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Expertise of staff															
$0-$25 million	1	26	80	25	132	0.8%	19.7%	60.6%	18.9%	100.0%	50.0%	70.3%	49.1%	50.0%	52.4%
$26-$50 million	0	2	40	17	59	0.0%	3.4%	67.8%	28.8%	100.0%	0.0%	5.4%	24.5%	34.0%	23.4%
$51-$75 million	0	3	18	1	22	0.0%	13.6%	81.8%	4.5%	100.0%	0.0%	8.1%	11.0%	2.0%	8.7%
$76-$100 million	0	1	9	3	13	0.0%	7.7%	69.2%	23.1%	100.0%	0.0%	2.7%	5.5%	6.0%	5.2%
$100 million or more	1	5	16	4	26	3.8%	19.2%	61.5%	15.4%	100.0%	50.0%	13.5%	9.8%	8.0%	10.3%
Total	2	37	163	50	252	0.8%	14.7%	64.7%	19.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Services meet district's needs															
$0-$25 million	4	22	80	26	132	3.0%	16.7%	60.6%	19.7%	100.0%	66.7%	66.7%	48.8%	53.1%	52.4%
$26-$50 million	0	4	42	13	59	0.0%	6.8%	71.2%	22.0%	100.0%	0.0%	12.1%	25.6%	26.5%	23.4%
$51-$75 million	1	3	16	2	22	4.5%	13.6%	72.7%	9.1%	100.0%	16.7%	9.1%	9.8%	4.1%	8.7%
$76-$100 million	0	2	6	5	13	0.0%	15.4%	46.2%	38.5%	100.0%	0.0%	6.1%	3.7%	10.2%	5.2%
$100 million or more	1	2	20	3	26	3.8%	7.7%	76.9%	11.5%	100.0%	16.7%	6.1%	12.2%	6.1%	10.3%
Total	6	33	164	49	252	2.4%	13.1%	65.1%	19.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. VN = Very negative; N = Negative; P = Positive; VP = Very Positive; T = Total.

Table 38 (Part 2)

Relationships Between Effectiveness of BOCES and Budget Size (Supports Table 20)

	Budget size														
	N					Row frequencies					Column frequencies				
Effectiveness of BOCES	VN	N	P	VP	T	VN	N	P	VP	T	VN	N	P	VP	T
Rules & regulations															
Participants have adequate input															
$0-$25 million	1	15	92	24	132	0.8%	11.4%	69.7%	18.2%	100.0%	100.0%	65.2%	49.7%	55.8%	52.4%
$26-$50 million	0	2	48	9	59	0.0%	3.4%	81.4%	15.3%	100.0%	0.0%	8.7%	25.9%	20.9%	23.4%
$51-$75 million	0	4	16	2	22	0.0%	18.2%	72.7%	9.1%	100.0%	0.0%	17.4%	8.6%	4.7%	8.7%
$76-$100 million	0	0	10	3	13	0.0%	0.0%	76.9%	23.1%	100.0%	0.0%	0.0%	5.4%	7.0%	5.2%
$100 million or more	0	2	19	5	26	0.0%	7.7%	73.1%	19.2%	100.0%	0.0%	8.7%	10.3%	11.6%	10.3%
Total	1	23	185	43	252	0.4%	9.1%	73.4%	17.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Clarity of sharing rules															
$0-$25 million	2	13	97	19	131	1.5%	9.9%	74.0%	14.5%	100.0%	66.7%	37.1%	54.5%	57.6%	52.6%
$26-$50 million	0	11	42	4	57	0.0%	19.3%	73.7%	7.0%	100.0%	0.0%	31.4%	23.6%	12.1%	22.9%
$51-$75 million	0	7	13	2	22	0.0%	31.8%	59.1%	9.1%	100.0%	0.0%	20.0%	7.3%	6.1%	8.8%
$76-$100 million	0	0	10	3	13	0.0%	0.0%	76.9%	23.1%	100.0%	0.0%	0.0%	5.6%	9.1%	5.2%
$100 million or more	1	4	16	5	26	3.8%	15.4%	61.5%	19.2%	100.0%	33.3%	11.4%	9.0%	15.2%	10.4%
Total	3	35	178	33	249	1.2%	14.1%	71.5%	13.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Financial considerations															
Cost of service															
$0-$25 million	7	37	78	8	130	5.4%	28.5%	60.0%	6.2%	100.0%	58.3%	47.4%	53.8%	53.3%	52.0%
$26-$50 million	1	17	37	4	59	1.7%	28.8%	62.7%	6.8%	100.0%	8.3%	21.8%	25.5%	26.7%	23.6%
$51-$75 million	1	12	8	1	22	4.5%	54.5%	36.4%	4.5%	100.0%	8.3%	15.4%	5.5%	6.7%	8.8%
$76-$100 million	1	1	10	1	13	7.7%	7.7%	76.9%	7.7%	100.0%	8.3%	1.3%	6.9%	6.7%	5.2%
$100 million or more	2	11	12	1	26	7.7%	42.3%	46.2%	3.8%	100.0%	16.7%	14.1%	8.3%	6.7%	10.4%
Total	12	78	145	15	250	4.8%	31.2%	58.0%	6.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
BOCES aid as an inducement for participation															
$0-$25 million	7	21	59	45	132	5.3%	15.9%	44.7%	34.1%	100.0%	100.0%	48.8%	46.8%	60.0%	52.6%
$26-$50 million	0	5	39	15	59	0.0%	8.5%	66.1%	25.4%	100.0%	0.0%	11.6%	31.0%	20.0%	23.5%
$51-$75 million	0	6	12	3	21	0.0%	28.6%	57.1%	14.3%	100.0%	0.0%	14.0%	9.5%	4.0%	8.4%
$76-$100 million	0	3	4	6	13	0.0%	23.1%	30.8%	46.2%	100.0%	0.0%	7.0%	3.2%	8.0%	5.2%
$100 million or more	0	8	12	6	26	0.0%	30.8%	46.2%	23.1%	100.0%	0.0%	18.6%	9.5%	8.0%	10.4%
Total	7	43	126	75	251	2.8%	17.1%	50.2%	29.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. VN = Very negative; N = Negative; P = Positive; VP = Very Positive; T = Total.

Table 39 (Part 1)

Relationships Between Effectiveness of BOCES and Years of Experience as a Superintendent (Supports Table 21)

	Years of experience as a superintendent														
	N					Row frequencies					Column frequencies				
Effectiveness of BOCES	VN	N	P	VP	T	VN	N	P	VP	T	VN	N	P	VP	T
Overall organizational effectiveness															
0-5 years	3	11	70	39	123	2.4%	8.9%	56.9%	31.7%	100.0%	60.0%	57.9%	48.6%	48.1%	49.4%
6-10 years	1	5	44	19	69	1.4%	7.2%	63.8%	27.5%	100.0%	20.0%	26.3%	30.6%	23.5%	27.7%
11-15 years	0	2	15	14	31	0.0%	6.5%	48.4%	45.2%	100.0%	0.0%	10.5%	10.4%	17.3%	12.4%
16-20 years	0	0	9	3	12	0.0%	0.0%	75.0%	25.0%	100.0%	0.0%	0.0%	6.3%	3.7%	4.8%
21 or more years	1	1	6	6	14	7.1%	7.1%	42.9%	42.9%	100.0%	20.0%	5.3%	4.2%	7.4%	5.6%
Total	5	19	144	81	249	2.0%	7.6%	57.8%	32.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Service & performance															
Quality of interaction with staff	0	12	71	39	122	0.0%	9.8%	58.2%	32.0%	100.0%	0.0%	52.2%	47.0%	50.0%	48.2%
0-5 years	0	4	45	22	71	0.0%	5.6%	63.4%	31.0%	100.0%	0.0%	17.4%	29.8%	28.2%	28.1%
6-10 years	1	2	21	8	32	3.1%	6.3%	65.6%	25.0%	100.0%	100.0%	8.7%	13.9%	10.3%	12.6%
11-15 years	0	1	8	3	12	0.0%	8.3%	66.7%	25.0%	100.0%	0.0%	4.3%	5.3%	3.8%	4.7%
16-20 years	0	4	6	6	16	0.0%	25.0%	37.5%	37.5%	100.0%	0.0%	17.4%	4.0%	7.7%	6.3%
21 or more years	1	23	151	78	253	0.4%	9.1%	59.7%	30.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total															
Quality of service from BOCES staff															
0-5 years	4	16	76	26	122	3.3%	13.1%	62.3%	21.3%	100.0%	66.7%	53.3%	45.8%	52.0%	48.4%
6-10 years	0	9	53	9	71	0.0%	12.7%	74.6%	12.7%	100.0%	0.0%	30.0%	31.9%	18.0%	28.2%
11-15 years	1	3	21	7	32	3.1%	9.4%	65.6%	21.9%	100.0%	16.7%	10.0%	12.7%	14.0%	12.7%
16-20 years	0	1	9	2	12	0.0%	8.3%	75.0%	16.7%	100.0%	0.0%	3.3%	5.4%	4.0%	4.8%
21 or more years	1	1	7	6	15	6.7%	6.7%	46.7%	40.0%	100.0%	16.7%	3.3%	4.2%	12.0%	6.0%
Total	6	30	166	50	252	2.4%	11.9%	65.9%	19.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Expertise of staff															
0-5 years	0	16	76	29	121	0.0%	13.2%	62.8%	24.0%	100.0%	0.0%	43.2%	46.9%	55.8%	47.8%
6-10 years	1	13	45	13	72	1.4%	18.1%	62.5%	18.1%	100.0%	50.0%	35.1%	27.8%	25.0%	28.5%
11-15 years	1	3	22	6	32	3.1%	9.4%	68.8%	18.8%	100.0%	50.0%	8.1%	13.6%	11.5%	12.6%
16-20 years	0	1	9	2	12	0.0%	8.3%	75.0%	16.7%	100.0%	0.0%	2.7%	5.6%	3.8%	4.7%
21 or more years	0	4	10	2	16	0.0%	25.0%	62.5%	12.5%	100.0%	0.0%	10.8%	6.2%	3.8%	6.3%
Total	2	37	162	52	253	0.8%	14.6%	64.0%	20.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Services meet district's needs															
0-5 years	3	21	71	26	121	2.5%	17.4%	58.7%	21.5%	100.0%	50.0%	63.6%	43.3%	52.0%	47.8%
6-10 years	0	7	52	13	72	0.0%	9.7%	72.2%	18.1%	100.0%	0.0%	21.2%	31.7%	26.0%	28.5%
11-15 years	2	1	24	5	32	6.3%	3.1%	75.0%	15.6%	100.0%	33.3%	3.0%	14.6%	10.0%	12.6%
16-20 years	0	1	10	1	12	0.0%	8.3%	83.3%	8.3%	100.0%	0.0%	3.0%	6.1%	2.0%	4.7%
21 or more years	1	3	7	5	16	6.3%	18.8%	43.8%	31.3%	100.0%	16.7%	9.1%	4.3%	10.0%	6.3%
Total	6	33	164	50	253	2.4%	13.0%	64.8%	19.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. VN = Very negative; N = Negative; P = Positive; VP = Very Positive; T = Total.

Table 39 (Part 2)

Relationships Between Effectiveness of BOCES and Years of Experience as a Superintendent (Supports Table 21)

	Years of experience as a superintendent														
	N					Row frequencies					Column frequencies				
Effectiveness of BOCES	VN	N	P	VP	T	VN	N	P	VP	T	VN	N	P	VP	T
Rules & regulations															
Participants have adequate input															
0-5 years	1	13	84	23	121	0.8%	10.7%	69.4%	19.0%	100.0%	100.0%	56.5%	45.4%	52.3%	47.8%
6-10 years	0	8	53	11	72	0.0%	11.1%	73.6%	15.3%	100.0%	0.0%	34.8%	28.6%	25.0%	28.5%
11-15 years	0	0	25	7	32	0.0%	0.0%	78.1%	21.9%	100.0%	0.0%	0.0%	13.5%	15.9%	12.6%
16-20 years	0	0	10	2	12	0.0%	0.0%	83.3%	16.7%	100.0%	0.0%	0.0%	5.4%	4.5%	4.7%
21 or more years	0	2	13	1	16	0.0%	12.5%	81.3%	6.3%	100.0%	0.0%	8.7%	7.0%	2.3%	6.3%
Total	1	23	185	44	253	0.4%	9.1%	73.1%	17.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Clarity of sharing rules															
0-5 years	2	19	83	16	120	1.7%	15.8%	69.2%	13.3%	100.0%	66.7%	52.8%	46.9%	47.1%	48.0%
6-10 years	1	13	47	9	70	1.4%	18.6%	67.1%	12.9%	100.0%	33.3%	36.1%	26.6%	26.5%	28.0%
11-15 years	0	1	24	7	32	0.0%	3.1%	75.0%	21.9%	100.0%	0.0%	2.8%	13.6%	20.6%	12.8%
16-20 years	0	1	10	1	12	0.0%	8.3%	83.3%	8.3%	100.0%	0.0%	2.8%	5.6%	2.9%	4.8%
21 or more years	0	2	13	1	16	0.0%	12.5%	81.3%	6.3%	100.0%	0.0%	5.6%	7.3%	2.9%	6.4%
Total	3	36	177	34	250	1.2%	14.4%	70.8%	13.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Financial considerations															
Cost of service															
0-5 years	8	37	68	8	121	6.6%	30.6%	56.2%	6.6%	100.0%	66.7%	47.4%	46.6%	53.3%	48.2%
6-10 years	0	31	38	2	71	0.0%	43.7%	53.5%	2.8%	100.0%	0.0%	39.7%	26.0%	13.3%	28.3%
11-15 years	2	7	20	3	32	6.3%	21.9%	62.5%	9.4%	100.0%	16.7%	9.0%	13.7%	20.0%	12.7%
16-20 years	0	1	9	1	11	0.0%	9.1%	81.8%	9.1%	100.0%	0.0%	1.3%	6.2%	6.7%	4.4%
21 or more years	2	2	11	1	16	12.5%	12.5%	68.8%	6.3%	100.0%	16.7%	2.6%	7.5%	6.7%	6.4%
Total	12	78	146	15	251	4.8%	31.1%	58.2%	6.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
BOCES aid as an inducement for participation															
0-5 years	5	21	57	37	120	4.2%	17.5%	47.5%	30.8%	100.0%	71.4%	48.8%	45.2%	49.3%	47.8%
6-10 years	2	15	36	19	72	2.8%	20.8%	50.0%	26.4%	100.0%	28.6%	34.9%	28.6%	25.3%	28.7%
11-15 years	0	1	20	10	31	0.0%	3.2%	64.5%	32.3%	100.0%	0.0%	2.3%	15.9%	13.3%	12.4%
16-20 years	0	3	7	2	12	0.0%	25.0%	58.3%	16.7%	100.0%	0.0%	7.0%	5.6%	2.7%	4.8%
21 or more years	0	3	6	7	16	0.0%	18.8%	37.5%	43.8%	100.0%	0.0%	7.0%	4.8%	9.3%	6.4%
Total	7	43	126	75	251	2.8%	17.1%	50.2%	29.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. VN = Very negative; N = Negative; P = Positive; VP = Very Positive; T = Total.

Table 40 (Part 1)

Relationships Between Effectiveness of BOCES and Years of Experience as a Superintendent in Current District (Supports Table 21)

	Years of experience as a superintendent in current district														
	N					Row frequencies					Column frequencies				
Effectiveness of BOCES	VN	N	P	VP	T	VN	N	P	VP	T	VN	N	P	VP	T
Overall organizational effectiveness															
0-5 years	3	11	103	54	171	1.8%	6.4%	60.2%	31.6%	100.0%	60.0%	57.9%	71.5%	65.9%	68.4%
6-10 years	1	5	32	23	61	1.6%	8.2%	52.5%	37.7%	100.0%	20.0%	26.3%	22.2%	28.0%	24.4%
11-15 years	0	2	6	3	11	0.0%	18.2%	54.5%	27.3%	100.0%	0.0%	10.5%	4.2%	3.7%	4.4%
16-20 years	0	1	2	2	5	0.0%	20.0%	40.0%	40.0%	100.0%	0.0%	5.3%	1.4%	2.4%	2.0%
21 or more years	1	0	1	0	2	50.0%	0.0%	50.0%	0.0%	100.0%	20.0%	0.0%	0.7%	0.0%	0.8%
Total	5	19	144	82	250	2.0%	7.6%	57.6%	32.8%	100.0%	100.0%	100.0%	100.0%	100.0%	99.2%
Service & performance															
Quality of interaction with staff	0	13	109	51	173	0.0%	7.5%	63.0%	29.5%	100.0%	0.0%	56.5%	72.7%	63.8%	68.1%
0-5 years	0	6	34	23	63	0.0%	9.5%	54.0%	36.5%	100.0%	0.0%	26.1%	22.7%	28.8%	24.8%
6-10 years	1	2	5	3	11	9.1%	18.2%	45.5%	27.3%	100.0%	100.0%	8.7%	3.3%	3.8%	4.3%
11-15 years	0	1	1	3	5	0.0%	20.0%	20.0%	60.0%	100.0%	0.0%	4.3%	0.7%	3.8%	2.0%
16-20 years	0	1	1	0	2	0.0%	50.0%	50.0%	0.0%	100.0%	0.0%	4.3%	0.7%	0.0%	0.8%
21 or more years	1	23	150	80	254	0.4%	9.1%	59.1%	31.5%	100.0%	100.0%	100.0%	100.0%	100.0%	99.2%
Total															
Quality of service from BOCES staff															
0-5 years	4	18	115	36	173	2.3%	10.4%	66.5%	20.8%	100.0%	66.7%	62.1%	68.5%	72.0%	68.4%
6-10 years	0	9	43	11	63	0.0%	14.3%	68.3%	17.5%	100.0%	0.0%	31.0%	25.6%	22.0%	24.9%
11-15 years	1	2	8	0	11	9.1%	18.2%	72.7%	0.0%	100.0%	16.7%	6.9%	4.8%	0.0%	4.3%
16-20 years	0	0	1	3	4	0.0%	0.0%	25.0%	75.0%	100.0%	0.0%	0.0%	0.6%	6.0%	1.6%
21 or more years	1	0	1	0	2	50.0%	0.0%	50.0%	0.0%	100.0%	16.7%	0.0%	0.6%	0.0%	0.8%
Total	6	29	168	50	253	2.4%	11.5%	66.4%	19.8%	100.0%	100.0%	100.0%	100.0%	100.0%	99.2%
Expertise of staff															
0-5 years	1	20	118	33	172	0.6%	11.6%	68.6%	19.2%	100.0%	50.0%	55.6%	72.0%	63.5%	67.7%
6-10 years	0	12	35	17	64	0.0%	18.8%	54.7%	26.6%	100.0%	0.0%	33.3%	21.3%	32.7%	25.2%
11-15 years	1	2	8	0	11	9.1%	18.2%	72.7%	0.0%	100.0%	50.0%	5.6%	4.9%	0.0%	4.3%
16-20 years	0	1	2	2	5	0.0%	20.0%	40.0%	40.0%	100.0%	0.0%	2.8%	1.2%	3.8%	2.0%
21 or more years	0	1	1	0	2	0.0%	50.0%	50.0%	0.0%	100.0%	0.0%	2.8%	0.6%	0.0%	0.8%
Total	2	36	164	52	254	0.8%	14.2%	64.6%	20.5%	100.0%	100.0%	100.0%	100.0%	100.0%	99.2%
Services meet district's needs															
0-5 years	3	22	112	35	172	1.7%	12.8%	65.1%	20.3%	100.0%	50.0%	66.7%	67.9%	70.0%	67.7%
6-10 years	0	9	43	12	64	0.0%	14.1%	67.2%	18.8%	100.0%	0.0%	27.3%	26.1%	24.0%	25.2%
11-15 years	2	1	7	1	11	18.2%	9.1%	63.6%	9.1%	100.0%	33.3%	3.0%	4.2%	2.0%	4.3%
16-20 years	0	1	2	2	5	0.0%	20.0%	40.0%	40.0%	100.0%	0.0%	3.0%	1.2%	4.0%	2.0%
21 or more years	1	0	1	0	2	50.0%	0.0%	50.0%	0.0%	100.0%	16.7%	0.0%	0.6%	0.0%	0.8%
Total	6	33	165	50	254	2.4%	13.0%	65.0%	19.7%	100.0%	100.0%	100.0%	100.0%	100.0%	99.2%

Note. VN = Very negative; N = Negative; P = Positive; VP = Very Positive; T = Total.

Table 40 (Part 2)

Relationships Between Effectiveness of BOCES and Years of Experience as a Superintendent in Current District (Supports Table 21)

	Years of experience as a superintendent in current district														
	N					Row frequencies					Column frequencies				
Effectiveness of BOCES	VN	N	P	VP	T	VN	N	P	VP	T	VN	N	P	VP	T
Rules & regulations															
Participants have adequate input															
0-5 years	1	15	128	28	172	0.6%	8.7%	74.4%	16.3%	100.0%	100.0%	65.2%	68.8%	63.6%	67.7%
6-10 years	0	6	44	14	64	0.0%	9.4%	68.8%	21.9%	100.0%	0.0%	26.1%	23.7%	31.8%	25.2%
11-15 years	0	0	10	1	11	0.0%	0.0%	90.9%	9.1%	100.0%	0.0%	0.0%	5.4%	2.3%	4.3%
16-20 years	0	1	3	1	5	0.0%	20.0%	60.0%	20.0%	100.0%	0.0%	4.3%	1.6%	2.3%	2.0%
21 or more years	0	1	1	0	2	0.0%	50.0%	50.0%	0.0%	100.0%	0.0%	4.3%	0.5%	0.0%	0.8%
Total	1	23	186	44	254	0.4%	9.1%	73.2%	17.3%	100.0%	100.0%	100.0%	100.0%	100.0%	99.2%
Clarity of sharing rules															
0-5 years	3	24	124	19	170	1.8%	14.1%	72.9%	11.2%	100.0%	100.0%	66.7%	69.7%	55.9%	67.7%
6-10 years	0	10	40	13	63	0.0%	15.9%	63.5%	20.6%	100.0%	0.0%	27.8%	22.5%	38.2%	25.1%
11-15 years	0	0	10	1	11	0.0%	0.0%	90.9%	9.1%	100.0%	0.0%	0.0%	5.6%	2.9%	4.4%
16-20 years	0	1	3	1	5	0.0%	20.0%	60.0%	20.0%	100.0%	0.0%	2.8%	1.7%	2.9%	2.0%
21 or more years	0	1	1	0	2	0.0%	50.0%	50.0%	0.0%	100.0%	0.0%	2.8%	0.6%	0.0%	0.8%
Total	3	36	178	34	251	1.2%	14.3%	70.9%	13.5%	100.0%	100.0%	100.0%	100.0%	100.0%	99.2%
Financial considerations															
Cost of service															
0-5 years	9	51	103	9	172	5.2%	29.7%	59.9%	5.2%	100.0%	75.0%	65.4%	70.1%	60.0%	68.3%
6-10 years	0	25	34	4	63	0.0%	39.7%	54.0%	6.3%	100.0%	0.0%	32.1%	23.1%	26.7%	25.0%
11-15 years	2	1	8	0	11	18.2%	9.1%	72.7%	0.0%	100.0%	16.7%	1.3%	5.4%	0.0%	4.4%
16-20 years	1	0	1	2	4	25.0%	0.0%	25.0%	50.0%	100.0%	8.3%	0.0%	0.7%	13.3%	1.6%
21 or more years	0	1	1	0	2	0.0%	50.0%	50.0%	0.0%	100.0%	0.0%	1.3%	0.7%	0.0%	0.8%
Total	12	78	147	15	252	4.8%	31.0%	58.3%	6.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.2%
BOCES aid as an inducement for participation															
0-5 years	5	26	87	53	171	2.9%	15.2%	50.9%	31.0%	100.0%	71.4%	60.5%	69.0%	69.7%	67.9%
6-10 years	2	14	32	15	63	3.2%	22.2%	50.8%	23.8%	100.0%	28.6%	32.6%	25.4%	19.7%	25.0%
11-15 years	0	2	5	4	11	0.0%	18.2%	45.5%	36.4%	100.0%	0.0%	4.7%	4.0%	5.3%	4.4%
16-20 years	0	1	1	3	5	0.0%	20.0%	20.0%	60.0%	100.0%	0.0%	2.3%	0.8%	3.9%	2.0%
21 or more years	0	0	1	1	2	0.0%	0.0%	50.0%	50.0%	100.0%	0.0%	0.0%	0.8%	1.3%	0.8%
Total	7	43	126	76	252	2.8%	17.1%	50.0%	30.2%	100.0%	100.0%	100.0%	100.0%	100.0%	99.2%

Note. VN = Very negative; N = Negative; P = Positive; VP = Very Positive; T = Total.