2020

What Happens When Cross-Sector Partnerships Are Mandated? Analyzing Trust through a Transaction Cost Approach

Vanessa Hubbard Rastberger Dr
Virginia Commonwealth University

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A Dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University.

by

VANESSA HUBBARD RASTBERGER

Master of Public Administration, Virginia Commonwealth University

Bachelor of Arts, Randolph-Macon College

Chair: NIRAJ VERMA, PH.D.

Professor of Public Policy and Urban Planning

L. Douglas Wilder School of Government and Public Affairs

Virginia Commonwealth University

Virginia Commonwealth University

Richmond, Virginia

May 1, 2020

Acknowledgements

This degree was made a reality with a lot of love, support and encouragement from my family to never quit or give up on my dream. A special thank you to my husband is deserving; he helped to push me up the hill many times and supported our family when I was over committed. You never lost confidence in me and inspired me to keep going when it seemed like it was too much. To my children, I did this for you. Thank you for always being so proud of me! Special recognition also goes to my parents who always told me I could accomplish anything in life that I set my mind to. You worked hard to provide me the opportunity to excel in life and be afforded the privilege of higher education. You also helped countless times and in many ways, chef, babysitter, you name it. To you - I am honored to have you in my life, you taught me how to have strength and confidence. To my brother, thank you for always being proud and encouraging me! A thank you also goes to my in-laws and extended family who provided support over the years. Likewise, many friends endured my absence at social events and stuck with me through my stressful times.

I am very thankful for my advisor, Dr. Niraj Verma, whose encouragement, guidance and support started right from the beginning and lasted until the end, even when it involved professional development outside of the dissertation. I am grateful for your keen insight, mentorship, and always being artful at striking a balance between providing feedback and encouragement. I look forward to continued success and to continue to learn from you!

I also want to thank the rest of my committee, Dr. Richard Huff, Dr. Robin Hurst, and Dr. I-Shian Suen. I appreciate all of your time and wisdom, especially, Dr. Suen who stuck by me even in my most challenging hours. Lastly, I want to thank the professional organizations that supported this long journey, both mentally and financially. I had some pretty special mentors along the way, you know who you are. Thank you.

TABLE OF CONTENTS

ABSTRACT

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Vanessa Hubbard Rastberger

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Chair: Niraj Verma, Ph.D.
Professor of Public Policy and Urban Planning
L. Douglas Wilder School of Government and Public Affairs

Cross-sector partnerships that combine the perspectives and needs of public, private, and nonprofit sectors have been used to address public policy challenges. Research has shown that trust and reputation among partners play an important role in the performance of partnerships. Trust has been positively associated with the reduction of transaction costs of partnerships, and therefore, this study used a Transaction Cost Economics (TCE) approach as the theoretical framework.

Some partnerships are volitional while others are the results of legal or other mandates. Does this volitional or non-volitional (mandated) status affect how collaboration is perceived? For instance, will collaboration and trust be more likely to be positively perceived when partners are mandated or when they are volitional? And how does this perceived collaboration affect transaction costs and ultimately, the success of these partnerships? To answer these questions, this study used a non-experimental, quantitative research design. Its findings are consistent with the literature on the importance of trust and collaboration. The results confirmed that the perception of collaboration differs when partnerships have mandated partners and when the

partnership has volitional or non-mandated partners. Contrary to the literature, mandated partners had a slightly stronger perception of collaboration than non-mandated ones, something that was traced to the sectoral origins of the partners. This underscored the importance of analyzing partnerships by sectors rather than just as an aggregate.

Further disaggregation was obtained by dissecting collaboration into components. All four components derived from the study: (1) "Partnership Capacity;" (2) "Partnership Responsiveness;" (3) "Partnership Legitimacy;" and (4) "Partnership Momentum" were perceived differently in cross-sector partnerships with mandated and non-mandated partners and, except for "Partnership Legitimacy," non-mandated partners perceived collaboration more strongly.

Overall, the results of the study confirmed some aspects of the literature, particularly the salience of trust in reducing transaction costs and furthering collaboration. At the same time, the results extend the literature by introducing two broad considerations: (a) sectoral origin or allegiance of participants and (b) whether they were mandated to participate. As well, by dissecting collaboration into constituent parts, the study advances the literature by showing how the perception of capacity, responsiveness, legitimacy and momentum can affect collaboration in partnerships.

LIST OF TABLES

LIST OF FIGURES

Chapter 1 - Introduction to the Study

1.1 - Introduction

In today's economy, a well-educated and highly skilled workforce is the cornerstone of economic vitality and global competitiveness. Education and training are key components for a thriving economy and social wellbeing. A mismatch of education and training leads to a shortage of talent prepared to meet current and future workforce needs. Cross-sector partnerships that combine the perspectives and needs of public, private, and nonprofit sectors have been used to address the workforce skills gaps and the mismatch of talent supply and demand (Bryson, Crosby, & Stone, 2006). While some partnerships are volitional, others are mandated and dictate what partners must participate. (Selsky & Parker, 2005). The literature on these partnerships puts trust between participants representing the sectors as crucial to ensuring the success of the partnership (Nooteboom, 2007). Yet, much less is known about the relationships between partners and particularly, the level of trust between them, when the partnerships are mandated as opposed to when they are volitional.

The importance of trust increases as the problems become more complex, straddle sectors, and the knowledge to resolve them rapidly changes. Workforce development, for instance, is replete with these challenges because rapidly changing technological knowledge implies equally rapid training, reformulation, and retraining along with the changing roles of those in different sectors. Cybersecurity may have once come under the broad purview of "security" and hence the preserve of government. There is little doubt that today, it is the shared responsibility of the public, private, and nonprofit sectors. Similarly, in the manufacturing industry, the responsibility to replace an aging workforce by changing negative perceptions of manufacturing among younger generations and their parents is shared by all sectors. This responsibility ranges from corporate social responsibility to mission-oriented nonprofits and public sector obligations to educate our workforce in order to maintain a vibrant and competitive economy.

Developing public policy in such situations is particularly tricky. It is widely known that the knowledge needed to solve these, and similar problems, extend across sectors. But it is one thing to declare the importance of partnerships across sectors and quite another to make these partnerships sustainable. In many cases, such partnerships have become part of the regulatory environment. They are mandated and must happen. However, mandated cooperation comes with its own difficulties and is susceptible to the charge of tokenism rather than genuine collaboration. Trust between sectors and between those representing them has been noted as a particularly vulnerable area that could render these collaborations ineffective (Nooteboom, Berger, & Noorderhaven, 1997). As a result, despite the significant amount of federal, state and local funding pouring into workforce cross-sector partnerships, lack of effective collaboration leads these partnerships to fail to achieve their desired outcomes (Rubin & Stankiewicz, 2001; Takahashi & Smutny, 2002).

1.2 - Background

Since the 1980s, public policymakers in the United States have advocated for collaboration through partnerships. Partnerships are promoted as a solution to efficiency and effectiveness among multiple organizations and sectors. For instance, Waddock (1988) describes partnerships as multiple organizations involving a commitment of resources, both time and effort, where organizations are solving problems that affect them all. These partnerships address issues that extend beyond organizational and sector boundaries and transcend to more broad concerns of public policy (Waddock, 1998).

Partnerships can be very complex in their implementation, often failing to return intended outcomes. Indeed, partnerships are sometimes called “fringe activities” because they are risky, can be difficult to negotiate, political, and challenged by the institutional status quo (Bruffee, 1999). Partnerships are iterative and cyclical (Ansell & Gash, 2008; Huxham, 2003), and are hard to explain (Brinkerhoff, 2002; Gazeley, 2008; Linder, 1999). Other challenges to the establishment and sustainability of cross-sector partnerships are the differing institutional formalities like policies and values (Verma, 2007). These policies and values can conflict with one another, thus, challenging the partnership at its core. Austin (2000) further adds that collaboration from within-sectors is different from collaboration between sectors as there is diversity of institutional cultures, performance measures, ways of communicating, motivations, decision-making styles, and personal skills.

Specifically, the United States’ public workforce system is strategically driven by state and regional workforce partnerships in the form of a state board and regional boards that are cross-sectoral in nature and that consist primarily of private, public and community based nonprofit organizations. They are mandatory partnerships with some requirements for mandated partners to participate and are regulated under the federal legislation of the Workforce Innovation and Opportunity Act (WIOA) that was enacted in 2014. WIOA was designed to align the public workforce system with education and economic development and is led by regional leaders on a Workforce Development Board (WDB). (Workforce Innovation and Opportunity Act, U.S. Department of Labor, Employment and Training Administration, 2014). WIOA seeks to improve talent supply and demand by putting job seekers back to work and meeting the talent demands of businesses.

WIOA reformed the public workforce system from the previous workforce legislation, the Workforce Investment Act of 1998 (WIA), and put more expectations on the WDBs to be more strategic conveners of workforce system partners and stakeholders. Federal, state and local funding dollars are funneled to these regional workforce partnerships with the purpose of giving strategic direction for local workforce services.

1.3 - Purpose of the Study

Successful partnerships are those that are based on collaboration where partners exchange resources, talent and skills to develop innovative solutions (Mendel & Brundney, 2012). Yet, there has been little research about linkages between how the private, public and nonprofit sectors partner together. Studies on collaborative relationships between multiple sectors is limited and often occurs between same sectors, such as, nonprofit-public, public-private or nonprofit-private sectors only. What has been missing by scholars is the inclusive perspective of cross-sector partnerships and their often tri-party nature in the United States (Mendel & Brundney, 2012).

The theoretical framework of this study is built around a Transaction Cost Economics (TCE) approach. The application of TCE theory to mandated and non-mandated partners in cross-sector partnerships has not been adequately explored. This study sought to evaluate how collaboration in cross-sector partnerships with mandated and non-mandated partners affect transaction costs. This is particularly important as cross-sector partnerships tend to create and enforce silos because of the inherent differences of partners. Partners' perception of trust and collaboration is important because partnership success has been linked to partners' perceived belief that the benefits of collaboration will outweigh the costs (Lubell, Schneider, & Mete, 2002).

Research has shown that trust and reputation among partners play an important role in the performance of partnerships (Thomson, Perry, & Miller, 2007; Glaeser, Laibson, Scheinkman, & Soutter, 2000; Nooteboom, Berger, & Norrderhaven, 1997; Getha-Taylor, 2012; Dietz & Hartog, 2006; Judge & Dooley, 2006; Nooteboom, 2007). Additionally, trust has been positively associated with reducing transaction costs (Gulati, 1998). Higher levels of trust are associated with lower levels of governance costs (Gulati, 1998). Therefore, higher levels of trust reduce the transaction costs that occur between partners in partnerships, such as the costs of monitoring the partnership's intended agreements. (Nooteboom, 1999). Nooteboom (1999) argues that a reduction of transaction costs will lead to increased partnership success.

The purpose of this study is to determine the perception of collaboration and trust in cross-sector partnerships with mandated and non-mandated partners in order to better understand how collaboration affects transaction costs and ultimately, the success of these partnerships.

1.4 - Theoretical Framework Overview

Part of the "New Institutional Economics" paradigm, TCE builds on traditional neoclassical economics by showing the importance and saliency of transaction costs (Judge & Dooley, 2006). For neoclassical economists, the costs of running an economic system are only for production and in a zero-transaction cost world (Coase, 1937). TCE theory was first developed by Ronald Coase (1937) and further matured and operationalized by Oliver Williamson in 1975 (Coase, 1992, Williamson, 1991).

TCE was a major revision of neoclassical economics and distinguishes itself by introducing the possibility of the influence of characteristics associated with the efficiency of a chosen form of organization, outside of the free market and by recognizing potential hidden costs (transaction costs) of future actions. Transaction costs are in contrast to production costs and are the costs of running the economic system, or the economic equivalent of friction in physics (Coase, 1937). Transactions must be exchanged, governed and organized, therefore, TCE encourages the formation of the most efficient governance structure to minimize transaction costs. (Rindfleisch & Heide, 1997). In TCE, the cost of transactions in one governance structure is compared with another.

Coase's explanation led to a paradigm shift in economics. Coase argued that the mode of governance and level of organizational hierarchy chosen by an organization could be explained through an evaluation of the transaction costs the organization would face under different kinds of governance (Coase, 1937). Oliver Williamson (1975) extended Coase's theory about the role of transaction costs in determining whether organizations prefer market-based or hierarchical forms of governance and formalized TCE as a foundational theory in organizational behavior and, especially, governance.

TCE has become a powerful theory because it incorporates what was failed to be considered in neoclassical economics, the concepts of bounded rationality, uncertainty, asset specificity and opportunism behavior (Williamson, 1975). A principal message of TCE is that the existence of change within institutions can be explained through transaction-cost-economizing behaviors (Williamson, 1985). Since transaction costs are not directly measured but, rather, estimated using dimensions of given transactions as proxies, TCE was used as a lens in this study to determine how collaboration may affect transaction costs in cross-sector partnerships that include mandated and non-mandated partners.

1.5 - Research Questions

Because of the influence collaboration can have on transition costs and the success of cross-sector partnerships, there were two research questions guiding this study. They relate to the perception of collaboration between mandated and non-mandated partners at aggregate and disaggregate levels.

1.5.1 - Research Question 1

At an aggregate level, are there differences in the perception of collaboration between mandated and non-mandated partners?

1.5.2 - Research Question 2

Are there differences in the perception of collaboration for disaggregated components of collaboration between mandated and non-mandated partners?

1.6 - Organization of the Study

Chapter 1 described the challenges of cross-sector partnerships and introduces trust as a critical factor to the success of cross-sector partnerships. The theoretical framework of the study, Transaction Cost Economics (TCE), was established as a powerful theory and as an approach to study what may be happening in cross-sector partnerships that have partners that are mandated and partners that are not mandated. In Chapter 2, the TCE literature validates the importance of trust as a transaction cost and a factor of collaboration in successful partnerships. Chapter 3 outlines the non-experimental quantitative research design that was used to collect data and establishes the methodological rationale of the study based on previous literature. Chapter 4 presents the data collected from the study and an analysis of statistical results. Finally, Chapter 5 provides a discussion of the study results and recommendations for future research.

Chapter 2 – Review of the Literature

2.1 - Introduction

This chapter presents the literature related to this study. TCE theory, transaction costs and collaboration are further explored, along with the importance of trust in cross-sector partnerships. The chapter concludes by introducing factors determined to influence success in cross-sector partnership collaboration.

2.2 - Transaction Cost Economics (TCE) Overview

Neoclassical economics is based on the assumption that a price mechanism exists, and as a result, in a competitive market, there is supply and demand. The supplier and the buyer will reach an agreement without any negotiations because price is set by the free market. The exchange cost is only the cost of the item and therefore, a good will be produced by a firm only if it can be produced at a price lower than the market price. In neoclassical theory a firm is like a black-box that interacts with the market to seek knowledge for its functioning (Verma & Churchman, 1997; Verma, 1998); the organization of economic activities is taken as a given and firms are characterized as profit-maximizing producers (Williamson, 1985). The firm chooses a production function to maximize the firm's performance (Henderson and Quant, 1980). The black-box of neoclassical economics assumes costless market transactions where there are zero transaction costs (Coase, 1937). Hence, it does not include costs that could be motivated by self-interest, opportunism and lower levels of trust.

In contrast to neoclassical economics, Coase (1937) offers an economic explanation of transaction costs that helps to understand why partnerships and companies are formed going beyond just trading through contracts on a market. In contrast to production costs, transaction costs are hidden costs that are not taken into account. Coase argues that there are a number of transaction costs to procuring something from the market that are in addition to just the price of the good (Coase, 1937).

Neoclassical economics suggests a firm's vertical boundary decisions are determined by technological factors (i.e.: economies of scale or scope) while TCE distinguishes itself from neoclassical economics by being influenced by characteristics associated with the efficiency of the chosen form of organization (Williamson, 1985). In other words, TCE explains what neoclassical economics failed to consider: bounded rationality, uncertainty, asset specificity and opportunism behavior (Williamson, 1985). Therefore, one can come to the conclusion that some forms of governance are more suitable than others for a given transaction. Within TCE, all economic activity revolves around a transaction that is exchanging a good or service between two or more economic actors (Macher & Richman, 2008). Williamson (1985) argued that in order to optimize that exchange, an appropriate governance mechanism must be matched to the nature of the transaction.

Coase (1960) argues that as transaction costs continue to rise, firms may be less likely to internalize externalities on their own. He suggests that direct government regulation may be a solution in lieu of a legal system that could determine allowable market transactions (Coase, 1960). Coase (1960, p. 17) notes that "the government may impose regulations which state what people must do or must not do and which have to be obeyed." Coase (1960) suggests that the government act as a 'super firm' which could provide a solution at a lower cost than could a private firm, by avoiding the market altogether. Higher and higher levels of centralization may need to deal with social costs (Coase, 1960). His work suggests that solutions may first be found in the market, then the firm, then the state and even further to a level of aggregation on a country or global wide scale. This work is important when viewing social problems, such as workforce supply and demand, and potential solutions in the form of mandated cross-sector partnerships. In addition, Williamson (1991) subsequently addressed the potential for hybrid forms of governance that share some characteristics of both markets and hierarchies, and although he acknowledged that conventional TCE (and his work on the subject) focuses only on dyadic interorganizational relationships, he noted that the core principles in TCE can be applied to the analysis of network relationships. As such, TCE can be a lens to view direct government regulation (mandated partnerships with mandated partners). This study used this economic lens to determine how collaboration may influence transaction costs and therefore, the success of partnerships.

2.2.1 - Transaction Cost Definitions

Many different definitions of transaction costs appear in the literature. Coase (1937) defines the term transaction costs as costs using price mechanisms associated with specifying, negotiating, and enforcing contracts. He argued that if transactions taking place in the market were too costly, transactions would be taken within the boundaries of the firm (Coase, 1937). Arrow (1969) defines transaction costs as the costs of running the economic system. In the mid-1970s, Williamson emphasized transactions in the analysis of governance structures, referring to this approach as "transaction cost approach." (Williamson, 1975). In 1985, Williamson defined transaction costs to include the costs of drafting, negotiating, and enforcing an agreement, along with the costs of governance and bonding to secure commitments (Williamson, 1985). Unlike previous approaches where transaction costs have a fixed value, Williamson's approach provides the notion that transaction costs have relative values and can be different from one organization to another (Williamson, 1985).

Wallis and North (1986) define transaction costs as the costs of processing and conveying information, coordinating, purchasing, marketing, advertising, selling, handling legal matters, shipping, and managing and supervising. Davis (1986) defines transaction costs as the costs of obtaining information, monitoring behavior, compensating intermediaries, and enforcing contracts. Additionally, North (1990) explains transaction costs as the costs of measuring the valuable attributes of what is being exchanged and the costs of protecting rights and policing and enforcing agreements.

2.2.2 - Composition of Transaction Costs

According to Williamson (1985), there are two kinds of transaction costs: (1) the *ex ante* costs of drafting, negotiating, and safeguarding an agreement, such as search and contract costs and (2) the *ex post* costs of haggling, governance, and bonding to secure commitments. In the case of partnerships, *ex ante* costs arise at the beginning and *ex post* costs occur during the partnership's lifespan (Williamson, 1985). Table 1 outlines the most common sources and types of transaction costs.

Table 1

Sources and Types of Transaction Costs

	Asset Specificity	Environmental Uncertainty	Behavioral Uncertainty
<u>A: Source of Transaction Costs</u>			
Nature of Governance Problem	Safeguarding	Adaptation	Performance Evaluation
<u>B. Type of Transaction Costs</u>			
Direct Costs	Costs of crafting safeguards	Communication, negotiation, and coordination costs	Screening and selection costs (*ex ante*); Measurement costs (*ex post*)
Opportunity Costs	Failure to invest in productive assets	Maladaptation; Failure to adapt	Failure to identify appropriate partners (*ex ante*); Productivity losses through effort adjustments (*ex post*)

Note: Rindfeisch & Heide (1997) summarize the source and nature of the most common forms of transaction costs.

The two assumptions that affect the critical dimensions of a given transaction are: (1) individuals may behave opportunistically; and (2) individuals are characterized by bounded rationality (Williamson, 1985). Individuals often act out of their self-interest and towards their best opportunity, seeking to sometimes exploit a situation to their own advantage (Williamson, 1979). This does not always happen but, the risk of opportunism is always present.

Opportunism in TCE goes beyond conventional economic theories of organizational behavior (Cyert & March, 1992; March & Simon, 1993; Simon, 1979) and collective action (Olson, 1965; Ostrom, 1990; Taylor, 1990) that presume organizations will act in their own self-interest by assuming some organizations will seek to take advantage of others with whom they transact. This potential behavior makes opportunism a key source of distrust among organizations (Bromiley & Cummings, 1995; Das & Rahman, 2002; Hosmer, 1995; Vlaar, Van de Bosch, & Volberda, 2007;). Researchers studying trust in relation to TCE suggest that in the absence of opportunism there is little or no need for trust (Bradach & Eccles, 1989, Das & Teng, 2001, Hill, 1990). TCE does not depend on trust but acknowledges the potential for trust to lower transaction costs and the importance of the appropriate selection of governance (Dyer & Chu, 2003; Hill, 1990; Noorderhaven, 1996).

Additionally, due to a lack of knowledge and information-processing capabilities, individuals are not always able to act rationally, even if they initially intend to do so. Because of bounded rationality, it is impossible to predict partner's potential future actions. Since partners may have to closely monitor each other's performance and create a way to enforce their agreement, transaction costs are likely to increase (Gantz, 2012).

The critical dimensions of transactions are: (1) asset specificity; and (2) uncertainty (Williamson, 1985). With regard to asset specificity, a valuable asset may be attached to a particular transaction. Asset specificity can be explained by the extent an investment is made to support a particular transaction that has a higher value to that transaction than compared to if it was redeployed for another purpose (Williamson, 1975). Williamson (1975, 1985) argues that transaction-specific assets are not redeployable and are too specialized, such as human investments in knowledge.

When partners have to invest a portion of partnership resources (financial and non-financial, such as time) in purposes other than those associated with productive activities (outputs), the partnership's performance drops (Zaheer & Venkatraman, 1995). Therefore, the specificity of assets for specific transactions could increase coordination activities between partners, as well as their intensity, and thus increases transaction costs (Artz & Brush, 2000; Erickson, 2001; Zaheer & Venkatraman, 1995).

Uncertainty intensifies problems that arise because of bounded rationality and opportunism (Erickson, 2001). Because of uncertainty, transaction costs can increase. For example, partners may seek to reduce uncertainty by negotiating complex contracts which in turn can increase *ex ante* transaction costs and later, if renegotiation is needed, possibly increase *ex post* transaction costs (Jobin, 2008). This uncertainty is exacerbated when you have cross-sector partnerships that involve partners that are not similar to each other due to the nature of sector differences, thus, leading to a more conflicting environment.

2.3 - Importance of Collaboration

Cross-sector partnerships can decline or underperform, be terminated or inappropriately persist (Inkpen & Ross, 2001), face collaborative inertia (Huxham,1996), or persist latently (Cestero,1999). Partnerships can have many challenges such as, a lack of clarity in defining common goals, complexity of accountability structures, resource capacity, performance measurement, and leadership and trust concerns (Gray & Jenkins, 2003; NAO, 2001; OAGC, 1999; OECD, 2001; Stern, 2004). Additionally, cross-sector partnership challenges can be lumped into themes such as mistrust, differing institutional cultures and practices, and insufficient partnership resources. Many partnerships, particularly regional partnerships are riddled with challenges to collaboration, such as competition fueled by scare and sometimes declining public funding.

Collaboration is defined in a number of ways in the literature. Mattessich, Murray-Close, & Monsey (2001) state that scholars do use different terms interchangeably to refer to collaboration, such as cooperation and coordination. Other words found in the literature that express collaboration are roundtable, partnership, relationship, alliance, consortia, network, and coalition (Hardy, Lawrence, & Grant, 2005; Huxham & Vangen, 2005; Winer & Ray, 1994). Bruder (1997) describes collaboration as specific actions taken that could not be done by a single organization. The working definition of collaboration used in this study is “Collaboration is a mutually beneficial and well-defined relationship entered into by two or more organizations to achieve common goals,” (Mattessich & Johnson, 2001, p.4, 2018, p. 5).

The literature reiterates that cross-sector partnerships are formed in response to issues that no individual partner or sector can address effectively on its own (Seigel, 2010; Bryson et al, 2006). Cross-sector collaboration involves “the linking or sharing of information, resources, activities, and capabilities by organizations in two or more sectors to achieve jointly an outcome that could not be achieved by organizations in one sector separately” (Bryson et al, 2006, p. 49). Researchers content that the most efficient collaboration is evident when organizations collaborate using methods that synthesize the different perspectives of each partner in understanding complex problems (Frey, Lohmeier, Lee, & Tollefson, 2006; Gajda, 2004; Gajda & Koliba, 2007; Thomson & Perry, 2006).

The relationships between sectors in cross-sector partnerships can take different forms and change over time (Austin, 2000). Googins and Rochlin (2000) discuss the many forms that partnerships can take, with most relationships being just a one-way transfer of resources. Googins and Rochlin (2000) further state that this relationship does not seem to satisfy the intuitive conditions of a “true partnership” between sectors. Thomson and Perry (2006) summarize the process of collaboration as consisting of five dimensions: governance, administration, organizational autonomy, mutuality, and norms of trust and reciprocity.

2.3.1 - Collaboration Motivation

The primary motivation for partnerships is normally assumed to be strategic interdependence in which one organization needs resources and/or capabilities that it does not possess. There must be motivation for partners in cross-sector partnerships to devote resources and time to build and sustain a partnership. If partnerships are to be sustainable, there must be intrinsic value for all partners (Austin, 2000; Googins & Rochlin, 2000) and therefore, it is important to examine the motives and drivers of partners (Cappelli, Shapiro, & Shumanis, 1998; Johnson, 2012; Longoria, 1999).

Motivations in partnerships will reflect partner divergent institutional goals and purpose (Bennett & Thompson, 2011). However, there are core pieces of commonality across the sectors. Motivations of collaboration may be that partners have an interest in greater financial capacity (Bennett & Thompson, 2011; Guthrie et al, 2008; Hoff, 2002; Smith & Wholstetter, 2006) or by legislative mandates that provide funding to partnering organizations (Cappelli et al., 1998; Longoria, 1999; Johnson, 2012). Other motivation could be through building community capacity and public perception (Bartlett, Frederick, Gulbrandsen & Murillo, 2002; Bennett & Thompson, 2011; Edens & Gilsinan, 2005; Hands, 2005; Hoff, 2002; Longoria, 1999; Seitanidi, Koufopoulos, & Palmer, 2010). Different from alliances between same sector organizations, partners in cross-sector partnerships have different goals and are motivated differently; these motivations, as a result, can lead to power imbalances (Parmigiani & Rivera-Santos, 2011).

The literature suggests that it is important to study the divergences and convergences of the collaboration level among various sector partners. In particular, the literature points to the role of divergent partner motivations and how this may affect partner engagement (Bartlett et al., 2002; Bennett & Thompson, 2011; Edens & Gilsinan, 2005; Hands, 2009; Hoff, 2002; Longoria, 1999; Seitanidi et al., 2010). As previously discussed, transaction costs can rise when a partner from one sector forms a partnership with another sector that does not have goal congruence. Graddy & Ferris (2007) refer to the public and nonprofit sectors as both sharing a commitment to service provision and the lack of profit motivation. This indicates that the public sector would only be expected to partner with private sector partners when they provide a unique benefit that will maintain or lower transaction costs (Graddy & Ferris, 2007). These findings in the literature drove the decision to study the collaboration among partnerships that included different sectors, and additionally, how motivations may be present or absent in partnerships with mandated and non-mandated partners.

2.4 - Importance of Trust

Trust is a primary concept in the cross-sector collaboration and interorganizational literature (Bierly & Gallagher, 2007; Zand, 1972; Wood & Gray, 1991; Mattessieh et al., 2001) and in effective collaboration and partnering. (Getha-Taylor, 2012). Partnership has been defined as “at least two agencies with common interests working together, in a relationship characterized by some degree of trust, equality and reciprocity” (Rees, Mullins, & Bovaird, 2012, p. 14). This relationship is assumed to contrast with market-based, contractual relationships which are assumed to be low trust and adversarial in nature, although there are exceptions (Rees et al., 2012).

Trust within a group, such as a partnership, is not just the aggregate of the relationships with other group members, which is what is typically researched, but the attitude that the individual holds toward the group as a collective (Korsgaard, Brodt, & Sapienza, 2003). There is limited empirical research on how trust is perceived in groups or collectives, which according to

Korsgaard et al., (2003), provides a strong argument for the validity of viewing trust in the collective. Trust has emerged as the attitude most critical for cooperation within groups and organizations and a powerful motivator of cooperation (Smith, 1995).

Trust is a central element of modern theories of organizational management and sociology (Arrow, 1974; Coleman, 1990; Gambetta,1988; Hardin, 2001; Kramer & Cook, 2004; March, 1994). Whether or not trust exists is a key consideration when assessing the nature of relationships between two or more parties as individuals, groups, or organizations (Alter & Hage, 1992; Bachmann & Zaheer, 2008; McEvily & Zaheer, 2004; Provan & Sydow, 2008; Ring & Van de Ven, 1994). Various forms of trust are considered attributes or contributing factors in sociological theories intended to explain interorganizational dynamics and individual and organizational behavior (Kramer, 2006). As organizations operate in increasingly interconnected environments, their ability to negotiate and manage trust in both internally and externally facing contexts is viewed as an essential ingredient to their success (Kramer, 2006; Kramer & Tyler, 1996; Lane & Bachmann, 1998; Saunders, Skinner, & Lewicki, 2010).

Research has shown that trust among partners play a critical role in partnership performance (Gulati, 1998; NAO, 2001: 9; OAGC, 1999: 5–11; OECD, 2001: 44; Stern, 2004; Zaheer and Venkatraman, 1995; Zaheer, McEvily, & Perone, 1998). Trust has been positively associated with performance within strategic alliances (Luo, 2002; Zaheer et al., 1998). Bardach (1998) identifies trust as a key element in one of two dimensions of interagency collaborative capacity. The findings of Huxham and Vangen's (2005) extensive research on collaboration led to the conclusion that trust is a critical component of collaboration. In her study of 422 collaborations, Thomson (2001) found evidence to support Huxham and Vangen's conclusions.

Table 2

Additional Literature on the Concept of Trust

Literature	**Reference**
Trust is essential for cooperation.	Child, Faulkner, & Tallman (2005); Faulkner & De Rond (2000); Lane (1998); Loveridge (2000)
Successful alliances exhibit trust between the partners; unsuccessful alliances exhibit a lack of trust.	Konza & Lewin (1998)
Trust is positively related to alliance performance.	Krishnan et. al. (2006)
High levels of trust are a good predictor of alliance success.	Schumacher (2006)

2.4.1 - Trust and Transaction Costs in Partnerships

Trust does not feature prominently in some economic theories, but where theory does accommodate trust, it is most commonly considered for its impact on economic efficiency in theories, such as, transaction cost economic or resource-based perspectives (Leiblein, 2003; Madhok & Tallman, 1998). Trust was identified, long ago, as perhaps the most efficient mechanism for governing a transaction and critical to transactional relationships (Arrow, 1974). Studies in the literature have established that trust can reduce transaction costs (Dyer, 1997; Dyer & Chu, 2003; Zaheer, et al., 1998) and facilitate the exchange of resources and information (Uzzi, 1997). Williamson's view of trust as too narrow to reflect real-world organizations is shared by several theorists going beyond Williamson to acknowledge the potential value of trust in reducing transaction costs (Bromiley & Cummings, 1995; Gulati, 1995; Noorderhaven, 1996; Pitelis, 1993; Zaheer & Venkatraman, 1995). Grady & Ferris (2007) discusses the complexity of the issue of interdependence versus trust, a key factor in many alliances. Partners may realize voids in assets which leads to the recognition of further dissimilarities that may raise transaction costs and dispel any pre-existing trust that may have been previously present.

Trust is a central component of interorganizational collaboration because it reduces opportunism and transaction costs more quickly than other organizing mechanisms (Bierly & Gallagher, 2007; Chiles & McMackin, 1996; Ostrom, 1998; Smith et al., 1995). Nooteboom et al., (1997) maintain that trust due to social norms or personal relations is underrepresented in TCE and that trust often substitutes for formal contracts and controls. Yet, TCE finds trust alone insufficient to safeguard against opportunism, and relies on explicit controls such as contracts, monitoring, and enforcement (Lane, 1998; Williamson, 1985).

Furthermore, controls such as monitoring can have unintended consequences, as partners being monitored may perceive additional monitoring as an indication of distrust directed at them (Ferrin, Bligh, & Kohles, 2007; Guerra, 2002; Kramer, 1999), reducing the level of trust in the entity performing the monitoring. Some sociological theory suggests that trust itself serves as a control against opportunistic behavior, especially when reputations are intended to be preserved (Lane, 1998; Zucker, 1986). However, trust alone cannot eliminate the threat of opportunism entirely, as it always exists, even in long-term relationships that have a history of trustworthy behavior (Dasgupta, 1988, Hardin, 1991).

Where trust manifests in the use of informal contracts and self-enforcement rather than formal agreements and legal sanctions (Ring, 2008), partnerships can realize cost efficiencies compared to formal legal agreements (Deakin, Lane, & Wilkinson, 1994; Lyons & Mehta, 1997). As trust declines, partners are more likely to spend more resources monitoring each other's contributions than time on producing additional outcomes (Nooteboom et al., 1997). When this happens, partnership productivity can decline (Nooteboom et al., 1997). The higher the levels of trust among partners, less resources are necessary with regards of monitoring and enforcement costs, hence the higher the partnership performance (Dyer, 1997). Developing and maintaining trust requires organizations to devote time, effort, and investment of resources (asset specificity) all of which involve costs depending on the context and the parties involved. Yet, trust improves economic efficiency in many types of collaboration, primarily in terms of lowering transaction costs and the costs of coordinating and governing partnerships.

Research has shown that there is uncertainty surrounding strategic alliances and partnerships (Mjoen & Tallman, 1997; Ring & Van de Ven, 1992; Zaheer et al.,1998). Several studies have identified trust between partners as a key factor that may help minimize uncertainties and reduce the threat of opportunism in strategic alliances (Das & Teng, 1998; Gulati, 1998; Gulati & Garguilo, 1999; Koza & Lewin, 1998; Smith & Barclay, 1997; Wuyts & Geyskens, 2005). When trust is present, the partnership will be able to weather uncertainties better than when trust is not present (Parkhe, 1993; Zaheer & Venkatraman, 1995; Larson, 1992; Ring & Van de Ven, 1994; Hill, 1990). The primary benefit resulting from trust in interorganizational relationships is the reduction in costs that would be incurred in the absence of trust (Hill, 1990).

2.4.2 - Trust and Volitional Partnership

Potential partners must assess the trade-offs in establishing a partnership, such as the benefits of cooperation and the risks of vulnerability to opportunism (Graddy & Ferris, 2007). Partners will normally seek to mitigate this risk by selecting partners that offer the least threat (Graddy & Ferris, 2007). This prompts partners to align with partners with whom they have the greatest strategic interdependence (Verma, 2007; Graddy & Ferris, 2007). As gains are weighed against risks, organizations will seek partners it trusts (Graddy & Ferris, 2007).

Graddy & Ferris (2007) suggest that organizations will prefer partners with who they have ties and social network connections. Gulati (1995) discovered that organizations having previous ties were more likely to form alliances, particularly as environmental uncertainty increases. Graddy & Ferris (2007) conclude that prior partner interaction is an important pre-condition to forming an effective alliance.

A defining dimension of collaboration is that partners must share a dual identity, and they must maintain their own distinct identities and organizational authority separate from (though simultaneously with) the collaborative identity (Thomson, 2001). The literature points to this reality that causes tension between self-interest created by individual organizational missions and an identity that is also for the collective interest of the partnership (Bardach, 1998; Tschirhart, Christensen, and Perry ,2005; Van de Ven, Emmett, and Koenig 1975; Wood & Gray, 1991). Huxham (1996, p. 15) refers to this tension as the autonomy-accountability dilemma and concludes that because "collaboration is voluntary, partners generally need to justify their involvement in it in terms of its contribution to their own aims" or they will seek to not collaborate at all.

In reality, partner makeup is not always based on voluntarism and could even be from reluctant membership (Kirchhoff & Ljunggren, 2016). Some partnerships may be mandated to exist and have mandated partner requirements as is the case for WDBs authorized under WIOA. When partnerships are not voluntary and are imposed through legislation, partnerships can have equality issues (Kirchhoff & Ljunggren, 2016) and uneven trust balances, allowing trust to serve more informally as a commodity.

Mandatory partnership membership could be institutional, instituted from a legislative mandate, but to further complicate, it could also be individual and more personal. For example, this may happen when an organization serving as a partner designates an employee, perhaps unwillingly, to serve on its behalf. Therefore, whether or not someone is mandated or required to be in a partnership can be somewhat subjective. Rees et al., (2012, p. 52) concludes that 'while there is theoretically no necessary conflict between competition and collaboration, in practice, partnerships have tended to work more effectively when they are underpinned by voluntary trust-based relationships rather than by imposed or mandated partnership forms or by competitive arrangements that undermine trust.'

Furthermore, Game theory indicates that cooperative behavior is more likely when there is a longer-term expectation of cooperation (Graddy & Ferris, 2007). Partnerships that promote long-term or include mandatory partners determined by legislation to remain indefinitely in the partnership, may be more likely to succeed. (Graddy & Ferris, 2007). Sullivan & Skelcher (2002) p. 83) make the case that short-term contracts versus longer term relational partnerships for delivery of public services was motivated by the expectation that "trust and mutuality will replace the suspicion and divergence of interests found in traditional short-term contracting."

Yet, the use of mandated partnerships has increasingly displaced trust-based partnerships through the introduction of external conditions and controls, with legislative and regulatory mechanisms to encourage partnerships (Hudson, 1999). Armistead & Pettigrew (2008, p.22) argue that specific cases of mandated partnerships can cause "a tendency to try to make the partnership work by following a set of prescriptions or check lists which might satisfy government, but which fail to address the dynamics of partnership performance and the causes of partnership failure." Dowling & Glendinning (2004) conceptualize the success of partnerships by how well partners work together and the long-term sustainability of the partnership. It is critical that the value of trust and other potential components of collaboration that could contribute to more successful conditions for mandated partnerships be better understood. A further examination of non-voluntarism in partnerships may reveal different perspectives on trust and important collaboration components, both within and across sectors.

2.5 - Cross-Sector Collaboration Success

In 2015, Krathu, Pichler, Xiao, Werthner, Neidhardt, Zapletal, and Huemer conducted a qualitative study on interorganizational success factors and after reviewing 177 publications, found that trust was a factor that played a significant role in collaboration success. Mattessich & Johnson (2018) presented 22 factors that influence the success of collaborations after a review of 74 relevant studies. They provided a comprehensive review of empirical collaboration literature by conducting a meta-analysis of factors for successful collaboration. One of the 22 factors is mutual respect, understanding and trust. Forty-one of the 74 studies were identified as contributing to the factor of mutual respect, understanding, and trust. The survey used in this study measured the 22 factors that Mattessich & Johnson (2018) determined would influence the success of collaborations.

Table 3

Collaboration Success Factors

Category	Collaboration Success Factors
Environment	• History of collaboration or cooperation in the community • Collaborative group seen as a legitimate leader in the community • Favorable political and social climate
Membership Characteristics	• Mutual respect, understanding, and trust • Appropriate cross section of members • Members see collaboration as being in their self-interest • Ability to compromise
Process and Structure	• Members share a stake in both process and outcome • Multiple layers of participation • Flexibility • Development of clear roles and policy guidelines • Adaptability to changing conditions • Appropriate pace of development • Evaluation and continuous learning
Communication	• Open and frequent communication • Established informal relationships and communication links
Purpose	• Concrete, attainable goals and objectives • Shared vision • Unique purpose
Resources	• Sufficient funds, staff, materials, and time • Skilled leadership • Engaged stakeholders

Note: Mattesich et al., (2018) Collaboration Success Factors

Chapter 3: Research Methodology

3.1 - Introduction

The purpose of this chapter is to explain the research design used in this study. This study sought to determine if partners' perception of collaboration was different. A conceptual diagram of the primary variables that guided this study is presented. Additionally, chapter 3 includes the study population, data collection procedures, and study limitations.

3.2 - Research Design

For this study, a non-experimental quantitative methodology was used. Quantitative data collected on perceptions are recognized as correlational and descriptive research that allow an area of interest to be described (Isaac & Michael, 1997). Plonsky and Gass (2011) noted that quantitative research designs are appropriate when the research aims to examine perceptions and observations. After a review of a study that conducted a mixed-method approach using the same survey instrument, it was determined that a quantitative approach only would be the best fit for this study. Adding open-ended questions to the already 40+ item survey resulted in incomplete surveys and survey fatigue (Culver-Dockings, 2012).

This study is cross-sectional, and therefore, data was collected at one point in time (Creswell, 2009). Survey design was chosen to be the most appropriate for this study and served as a preferred method of data collection because it had quick turnaround time and was of low cost to implement (Creswell, 2009). "The survey method is one of the most important data collection methods in the social sciences, and as such, it is used extensively to collect information on numerous subjects of research" (Nachmias & Nachmias, 2000, p. 225). Additionally, the survey method as a questionnaire eliminated the interviewer bias that could be evident in a qualitative study because there was no personal contact and created an atmosphere for anonymity.

3.2.1 - Independent Variables

The independent variables in this study are the 22 factors included in the survey instrument, the Wilder Collaboration Factors Inventory (Mattessich & Johnson, 2018). These factors are evidence-based factors that increase the likelihood that collaboration will succeed (Mattessich & Johnson, 2018). These factors are the study variables and include: (1) History of collaboration or cooperation in the community; (2) Collaborative group seen as a legitimate leader in the community; (3) Favorable political and social climate; (4) Mutual respect, understanding, and trust; (5) Appropriate cross section of members; (6) Members see collaboration as being in their self-interest; (7) Ability to compromise; (8) Members share a stake in both process and outcome; (9) Multiple layers of participation; (10) Flexibility; (11) Development of clear roles and policy guidelines; (12) Adaptability to changing conditions; (13) Appropriate pace of development; (14) Evaluation and continuous learning; (15) Open and frequent communication; (16) Established informal relationships and communication links; (17) Concrete, attainable goals and objectives; (18) Shared vision; (19) Unique purpose; (20) Sufficient funds, staff, materials, and time; (21) Skilled leadership; and (22) Engaged stakeholders. Additional information on the survey instrument is included in the Instrumentation section of this chapter.

3.2.2 - Dependent Variable

The responses to the questions on the survey were used to create the dependent variable, the "Perception of Collaboration." Because there is no direct measure of the "Perception of Collaboration," the survey responses (22 variables) were used to derive factor scores as proxies for the dependent variable.

3.2.3 - Demographic Variables

The demographic variables included partnership/board identity, the type of sector the partner belonged to (private, public, or nonprofit), whether a partner was required to be on the workforce board or not (mandated/non-mandated) and the length of time served on the board (partnership). The private sector is operationalized as all for-profit businesses that are not owned or operated by the government. The public sector is operationalized as the part of an economy that is controlled by the government. The nonprofit sector is operationalized as a group of organizations formed for purposes other than generating profit and in which no part of the organization's income is distributed to its members, directors, or officers.

The Section 107 of the WIOA law mandates which partners shall or may maintain membership on WDBs (Workforce Innovation and Opportunity Act of 2014). WDB members are appointed by local elected officials from nominations submitted from the local organizations and businesses (Workforce Innovation and Opportunity Act of 2014). A business member majority is required and must meet 51% of the board composition. Additionally, the Virginia Board of Workforce Development published Policy 200-02: *Establishment and Membership of Local Workforce Development Boards* (VBWD Policy 200-02, 2016) outlining additional guidance for the membership of the WDBs and describes in detail which members are mandatory and which members are optional (Appendix A). The WDB must contain 51% representation of the private sector, however, there is no mandatory requirement for which private sector companies must participate on WDBs.

Table 4

Demographic Characteristics as Variables

Variable	Description
Sector Identity	Private, Public or Nonprofit
Board Identity	Name of Virginia WDB serving on
Partner Membership	Required to be on the board (Mandated/Non-mandated)
Length of Time Serving on the Board	0-12 months; 13-24 months; 25-48 months; 49+ months

3.2.4 - Conceptual Diagram

A conceptual diagram is used to describe the concepts of a study and their relationships in an abstract way. The following diagram shows a visual depiction of the primary concepts in this study.

Figure 1

Conceptual Diagram

3.2.5 - Population

The defined study population was the Governor-certified functioning workforce board members from all 15 WDBs across Virginia, as mandated to exist by the WIOA. The identity of the WDB members is public information and the entire population was surveyed. Under WIOA, board membership cannot be manipulated based on federal and state regulations for local board composition and board member appointments (Johnson, 2017). As of August 2019, a census of the 15 WDBs in Virginia was conducted and 459 board members were discovered to be publicly listed on the WDB websites. Inclusion criteria are the requirements an individual must have to be eligible to participate in a survey (Fink, 2003). Criteria to become a WDB member aligns with local board member requirements as defined by WIOA and Virginia state policy. The following organizations are mandated partners required from both the WIOA and VWDB policy: (1) Labor Organization; (2) Joint Labor Management Apprenticeship Program; (3) Apprenticeship Program; (4) Institution of Higher Education providing workforce investment activities; (5) Economic and Community Development; (6) State Employment Office; (7) Title 1 of the Rehabilitation Act of 1973; (8) Adult Education Program administering WIOA Title II Adult Education and Family Literacy (AEFLA) activities; and (9) Career and Technical Education Program (Workforce Innovation and Opportunity Act, 2014 &VBWD Policy 200-02, 2016). The population selected ensured representation of the operationalized sectors because of the mandatory requirement of certain public and nonprofit sector participation and the requirement that 51% of board members must be from the private sector. Regional workforce development collaborations, such as the WDBs have emerged as noteworthy approaches to tackle complex problems within a region’s workforce development system (Melendez, Borges-Mendez, Visser & Rosofsky, 2015).

A non-probability purposive sampling method was chosen for this study because of the additional requirements for board membership mandated by the Virginia policy through the Virginia Workforce Development Board, in addition to the WIOA federal law. Because states are given the flexibility to expand the requirements for mandatory membership of the WDBs, it would have been difficult to obtain comparable samples across states.

3.2.6 - Instrumentation

The instrument used in this study was the Wilder Collaboration Factors Inventory (Appendix B). The Wilder Collaboration Factors Inventory contains questions related to 22 factors (variables) that influence the success of collaboration as identified in the literature by the authors using meta-analysis (Mattessich & Johnson, 2018). An extensive review of the literature led to the Wilder Collaboration Factors Inventory developed by Mattessich and Monsey (1992). Using meta-analysis, Mattessich and Monsey (1992) used 133 collaboration studies from 1975-1991 to determine 19 factors that impact successful collaboration among organizations. A second and third edition of the Wilder Collaboration Factors Inventory has been released with updated literature, and as a result, the survey tool was enhanced to now consist of 22 factors that influence the success of collaboration.

The survey consisted of 44 items scored on a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The survey respondent was asked to indicate what board they are serving on and if they are part of the private, public or nonprofit sector. Additional demographic questions included how long they had been serving on the board and if they were required to be on the board. This latter phrase "required to be on the board" had room for ambiguity because someone may be a volunteer although her/his employer may be an organization that is mandated to participate. This was obviated by allowing survey respondents to self-report whether or not they were required to be on the board, without regard to whether this requirement was solely institutional or individual. The survey was designed to take approximately 15-25 minutes to complete.

The Wilder Collaboration Factors Inventory was developed as a tool for partnerships to access the strengths and weaknesses of collaboration. Over time, it has been used in multiple research studies (Townsend & Shelley, 2008), indirectly buttressing its validity and usefulness. Townsend & Shelley (2008) contend that the established psychometric properties of the Wilder instrument permit researchers to employ more powerful statistical test procedures.

Reliability tests for the Wilder Collaboration Factors Inventory were first conducted by Derose, Beatty, & Jackson (2004) and later by Townsend and Shelley (2008). Cronbach's alpha coefficients were used to determine the consistency of survey questions (Tavakol & Dennick, 2011). These studies found similar results with Cronbach alphas for 14 of the 20 factors between .66 and .86 (Derose et al., 2004). Three factors had lower reliability but were still considered to have indications of important relationships between the items within the factors. Townsend & Shelley (2008) found there was a statistically significant theoretical structure of the instrument that grouped the 40 collaborative items into four meaningful components. The four components of the factor analysis explained 55.5% of the total variance (Townsend & Shelley, 2008). Both Vogt (2000) and Derose et al., (2004) determined the instrument to be a measure of collaborative effort, establishing validity for the instrument.

All of these studies were conducted on the 2nd edition, the previous version of the Wilder Collaboration Factors Inventory from 2001 (Mattessich et al., 2001) that included 20 of the current 22 factors being used in this study. The two factors that were added in the most recent (2018) version of the Wilder Collaboration Factors Inventory were: (1) Evaluation and continuous learning; and (2) Engaged stakeholders (Mattessich & Johnson, 2018).

3.2.7 - Data Collection Procedures

Policies pertaining to the overall ethical treatment of human subjects are enforced by the Virginia Commonwealth University Institutional Review Board (VCU-IRB). VCU IRB approval was obtained on August 6, 2019. (Appendix C)

The population of this research was conducted with adults only. Consent was outlined in all population communication and within the online survey. The survey provided anonymity of the respondent's name. It was assured to survey respondents that their survey responses would remain confidential as an individual response and would be reported in aggregate by partnership/board, sector and whether a partner was mandated and non-mandated. Any results reported on a WDB level remained anonymous. The data collected for this study was protected electronically by the use of computer passwords. No personally identifying information was obtained from any participant. Data for this study was collected online using the survey electronic software available from REDCap. Electronic data collection and storage allows for easier and faster data collection (Benfield & Szlemko, 2006).

Before the survey was sent out, a pilot test of the survey was done with several workforce development professionals. Through the pilot test, the amount of time to take the survey was gauged and the pilot was used to make minor word changes which made the survey instructions less ambiguous.

The survey was sent to all 15 WDB Executive Directors in Virginia. Before the survey was sent to the WDB Executive Directors, the researcher contacted the Virginia Association of Workforce Directors (VAWD) co-chairs to inform them of the study and ask for their support. After support was obtained, the researcher contacted the 15 WDB Executive Directors by email (Appendix D) to inform them of the study, to gain support for the survey distribution and to find out if there were any questions regarding the study. The researcher gave the WDB Executive Director an opportunity to set up a time to speak by phone about the study if there was a desire to do so and to answer any additional questions. After all of the Executive Directors consented to participate in the study by responding with affirmation via email, they were sent an introductory email (Appendix E) with the survey distribution instructions and the online survey to send to all of their board members. The introductory email explained the purpose of the study and the survey instrument.

All respondents were asked to fill out the online survey within a three-week period. Nine members were listed as serving on two WDBs that were in close proximity of each other. The survey instructions asked respondents to fill out a survey for each WDB they were serving on. Reminder emails (Appendix F) were sent one week after the survey was initially distributed by the Executive Director. The distribution dates were confirmed by the Executive Directors. A second reminder email (Appendix G) was sent a week after the first reminder email, noting that the survey timeframe would be closing soon. If the response rate was less than 30% of any particular WDB by week two, the researcher emailed the Executive Director to inquire about any additional strategies to obtain more survey responses. To incentivize individuals to participate, the researcher agreed to provide survey results at an aggregate level only for individual WDBs and for Virginia across all WDBs.

3.2.8 - Data Analysis Procedures

Once the timeframe closed for survey responses, the researcher cleaned the data. If a respondent did not complete the survey, the responses to the survey questions that were completed were used and pairwise deletion was used in data analysis. The researcher excluded any surveys that did not contain the demographic and geographical information being asked. One survey respondent responded that they were in both, the private and public sectors. Another survey respondent responded that they did not know if they were required to be on the board. Because these responses were outliers and would create a unique group of one for the variables of sector and mandated/non-mandated participation status, the researcher removed these two responses from the survey data. After the data was collected, descriptive and inferential statistical data analysis was conducted.

3.3 - Research Questions and Hypotheses

There are two research questions guiding this study. They relate to the perception of collaboration between mandated and non-mandated partners at aggregate and disaggregate levels. These and the ensuing hypotheses are explained below.

3.3.1 - Research Question 1

At an aggregate level, are there differences in the perception of collaboration between mandated and non-mandated partners? Three hypotheses were tested.

3.3.1.1 Hypothesis 1

Hypothesis 1 tests whether the perception of collaboration is stronger comparing the aggregate groups of mandated partners and non-mandated partners. An independent *t*-test was done to determine the difference between the two groups.

$H1_0$: In the case of cross-sector partnerships, non-mandated partners do not have a stronger perception of collaboration than mandated partners.

$H1_A$: In the case of cross-sector partnerships, non-mandated partners do have a stronger perception of collaboration than mandated partners.

3.3.1.2 - Hypothesis 2

Hypothesis 2 tests the difference in perception of collaboration between mandated partners only and from the private, public, and nonprofit sectors. A one-way analysis of variance (ANOVA) was done to determine variances between mandated partners' perception of collaboration.

$H2_0$: The perception of collaboration is not different for mandated partners from the private, public and nonprofit sectors.

$H2_A$: The perception of collaboration is different for mandated partners from the private, public and nonprofit sectors.

3.3.1.3 - Hypothesis 3

Hypothesis 3 tests the difference in perception of collaboration between the non-mandated partners only from the private, public, and nonprofit sectors. A one-way analysis of variance (ANOVA) was done to determine variances between the non-mandated partners' perception of collaboration.

$H3_0$: The perception of collaboration is not different for non-mandated partners from the private, public and nonprofit sectors.

$H3_A$: The perception of collaboration is different for non-mandated partners from the private, public and nonprofit sectors.

3.3.2 - Research Question 2

The second research question continues the same analysis but after separating collaboration into four component parts using principal component analysis. The components are: (1) "Partnership Capacity;" (2) "Partnership Responsiveness;" (3) "Partnership Legitimacy;" and (4) "Partnership Momentum." Each hypothesis (below) represents testing for one component. For Hypotheses 4-7, an independent *t*-test was used to determine the difference between the two groups (mandated or not). For Hypotheses 8-11, a one-way analysis of variance (ANOVA) was used to find the relationship between mandated partners' perception of collaboration that belong to the following sectors: private, public, or nonprofit for each component. Hypotheses 12-15 used the same approach, but for non-mandated partners only.

3.3.2.1 - Hypothesis 4

$H4_{0:}$ Non-mandated partners do not have a stronger perception of "Partnership Capacity" than mandated partners.

$H4_{A}$: Non-mandated partners have a stronger perception of "Partnership Capacity" than mandated partners.

3.3.2.2 - Hypothesis 5

$H5_{0:}$ Non-mandated partners do not have a stronger perception of "Partnership Responsiveness" than mandated partners.

$H5_{A}$: Non-mandated partners have a stronger perception of "Partnership Responsiveness" than mandated partners.

3.3.2.3 - Hypothesis 6

$H6_0$: Non-mandated partners do not have a stronger perception of “Partnership Legitimacy” than mandated partners.

$H6_A$: Non-mandated partners have a stronger perception of “Partnership Legitimacy” than mandated partners.

3.3.2.4 - Hypothesis 7

$H7_0$: Non-mandated partners do not have a stronger perception of “Partnership Momentum” than mandated partners.

$H7_A$: Non-mandated partners have a stronger perception of “Partnership Momentum” than mandated partners.

3.3.2.5 - Hypothesis 8

$H8_0$: The perception of “Partnership Capacity” is not different for mandated partners from the private, public and nonprofit sectors.

$H8_A$: The perception of “Partnership Capacity” is different for mandated partners from the private, public and nonprofit sectors.

3.3.2.6 - Hypothesis 9

$H9_0$: The perception of “Partnership Responsiveness” is not different for mandated partners from the private, public and nonprofit sectors.

$H9_A$: The perception of “Partnership Responsiveness” is different for mandated partners from the private, public and nonprofit sectors.

3.3.2.7 - Hypothesis 10

$H10_0$: The perception of “Partnership Legitimacy” is not different for <u>mandated</u> partners from the private, public and nonprofit sectors.

$H10_A$: The perception of “Partnership Legitimacy” is different for <u>mandated</u> partners from the private, public and nonprofit sectors.

3.3.2.8 - Hypothesis 11

$H11_0$: The perception of “Partnership Momentum” is not different for <u>mandated</u> partners from the private, public and nonprofit sectors.

$H11_A$: The perception of “Partnership Momentum” is different for <u>mandated</u> partners from the private, public and nonprofit sectors.

3.3.2.9 - Hypotheses 12

$H12_0$: The perception of “Partnership Capacity” is not different for <u>non-mandated</u> partners from the private, public and nonprofit sectors.

$H12_A$: The perception of “Partnership Capacity” is different for <u>non-mandated</u> partners from the private, public and nonprofit sectors.

3.3.2.10 - Hypotheses 13

$H13_0$: The perception of “Partnership Responsiveness” is not different for <u>non-mandated</u> partners from the private, public and nonprofit sectors.

$H13_A$: The perception of “Partnership Responsiveness” is different for <u>non-mandated</u> partners from the private, public and nonprofit sectors.

3.3.2.11 - Hypothesis 14

$H14_0$: The perception of "Partnership Legitimacy" is not different for non-mandated partners from the private, public and nonprofit sectors.

$H14_A$: The perception of "Partnership Legitimacy" is different for non-mandated partners from the private, public and nonprofit sectors.

3.3.2.12 - Hypothesis 15

$H15_0$: The perception of "Partnership Momentum" is not different for non-mandated partners from the private, public and nonprofit sectors.

$H15_A$: The perception of "Partnership Momentum" is different for non-mandated partners from the private, public and nonprofit sectors.

3.4 - Summary of Hypotheses

Table 5 presents a summary of the 15 hypotheses and the corresponding statistical tests that were performed. Table 6 shows the hypotheses and their relationship in diagrammatic form.

Table 5

Summary of Hypotheses and Statistical Tests

	Hypotheses	Statistical Test
$H1_0$	In the case of cross-sector partnerships, non-mandated partners do not have a stronger perception of collaboration than mandated partners.	Independent Samples *t*-test
$H1_A$	In the case of cross-sector partnerships, non-mandated partners do have a stronger perception of collaboration than mandated partners.	

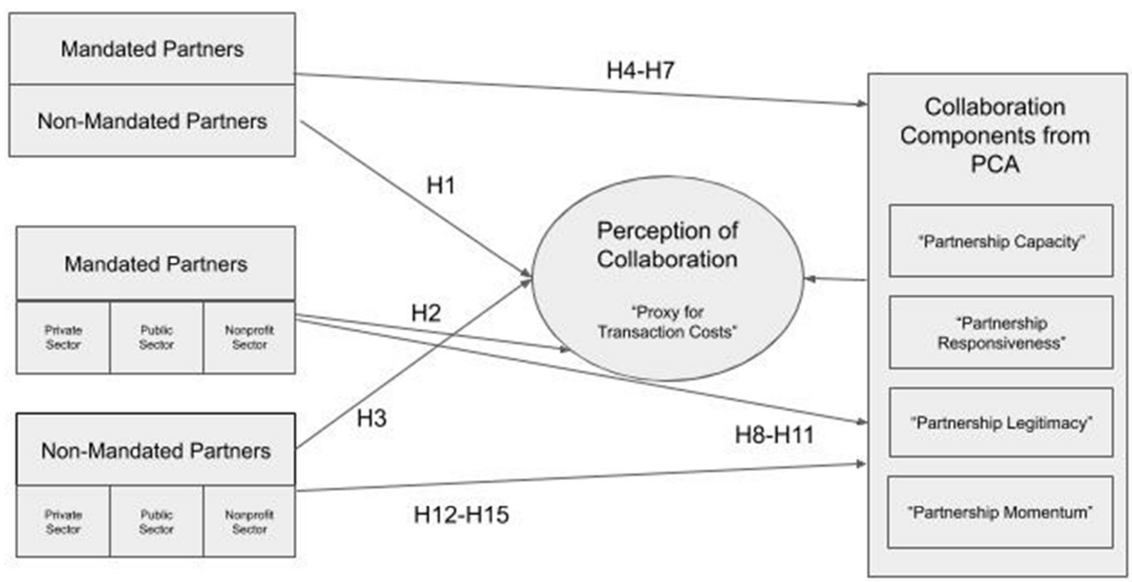
The following two hypotheses relate to collaboration from the private, public and nonprofit sectors for mandated partners (H2) and non-mandated partners (H3).		
$H2_0$	The perception of collaboration is not different for mandated partners from the private, public and nonprofit sectors.	Analysis of Variance (ANOVA)
$H2_A$	The perception of collaboration is different for mandated partners from the private, public and nonprofit sectors.	
$H3_0$	The perception of collaboration is not different for non-mandated partners from the private, public and nonprofit sectors.	Analysis of Variance (ANOVA)
$H3_A$	The perception of collaboration is different for non-mandated partners from the private, public and nonprofit sectors.	
The following four hypotheses (H4, H5, H6, H7) relate to the collaboration components derived from principal components analysis and the differences in them between mandated and non-mandated partners.		
$H4_0$	Non-mandated partners do not have a stronger perception of” Partnership Capacity” than mandated partners.	Independent Samples *t*-test
$H4_A$	Non-mandated partners do have a stronger perception of” Partnership Capacity” than mandated partners.	
$H5_0$	Non-mandated partners do not have a stronger perception of” Partnership Responsiveness” than mandated partners.	Independent Samples *t*-test
$H5_A$	Non-mandated partners do have a stronger perception of” Partnership Responsiveness” than mandated partners.	
$H6_0$	Non-mandated partners do not have a stronger perception of “Partnership Legitimacy” than mandated partners.	Independent Samples *t*-test
$H6_A$	Non-mandated partners do have a stronger perception of “Partnership Legitimacy” than mandated partners.	
$H7_0$	Non-mandated partners do not have a stronger perception of “Partnership Momentum” than mandated partners.	Independent Samples *t*-test
$H7_A$	Non-mandated partners do have a stronger perception of “Partnership Momentum” than mandated partners.	
The following four hypotheses (H8, H9, H10, H11) relate to the collaboration components derived from principal components analysis and the differences between only the mandated partners from the private, public and nonprofit sectors.		
$H8_0$	The perception of “Partnership Capacity” is not different for mandated partners from the private, public and nonprofit sectors.	Analysis of Variance (ANOVA)

$H8_A$	The perception of “Partnership Capacity” is different for mandated partners from the private, public and nonprofit sectors.	
$H9_0$	The perception of “Partnership Responsiveness” is not different for mandated partners from the private, public and nonprofit sectors.	Analysis of Variance (ANOVA)
$H9_A$	The perception of “Partnership Responsiveness” is different for mandated partners from the private, public and nonprofit sectors.	
$H10_0$	The perception of “Partnership Legitimacy” is not different for mandated partners from the private, public and nonprofit sectors.	Analysis of Variance (ANOVA)
$H10_A$	The perception of “Partnership Legitimacy” is different for mandated partners from the private, public and nonprofit sectors.	
$H11_0$	The perception of “Partnership Momentum” is not different for mandated partners from the private, public and nonprofit sectors.	Analysis of Variance (ANOVA)
$H11_A$	The perception of “Partnership Momentum” is different for mandated partners from the private, public and nonprofit sectors.	
The following four hypotheses (H12, H13, H14, H15) relate to the collaboration components derived from principal components analysis and the differences between only the non-mandated partners from the private, public and nonprofit sectors.		
$H12_0$	The perception of “Partnership Capacity” is not different for non-mandated partners from the private, public and nonprofit sectors.	Analysis of Variance (ANOVA)
$H12_A$	The perception of “Partnership Capacity” is different for non-mandated partners from the private, public and nonprofit sectors.	
$H13_0$	The perception of “Partnership Responsiveness” is not different for non-mandated partners from the private, public and nonprofit sectors.	Analysis of Variance (ANOVA)
$H13_A$	The perception of “Partnership Responsiveness” is different for non-mandated partners from the private, public and nonprofit sectors.	
$H14_0$	The perception of “Partnership Legitimacy” is not different for non-mandated partners from the private, public and nonprofit sectors.	Analysis of Variance (ANOVA)
$H14_A$	The perception of “Partnership Legitimacy” is different for non-mandated partners from the private, public and nonprofit sectors.	

$H15_0$	The perception of "Partnership Momentum" is not different for non-mandated partners from the private, public and nonprofit sectors.	Analysis of Variance (ANOVA)
$H15_A$	The perception of "Partnership Momentum" is different for non-mandated partners from the private, public and nonprofit sectors.	

Figure 2

Path Diagram representing Hypotheses



3.5 - Limitations

This study only explored the perceptions of collaboration from regional workforce boards in Virginia and was limited to the finite population of the 15 WDBs in Virginia. As a result, applying the findings and making generalized conclusions to other populations and partnerships should be done cautiously. The data in this study is self-reported data, therefore, answers from survey respondents could be influenced by this. Additionally, this study was cross sectional, yet it studied phenomena (collaboration, trust) that may evolve and change over time.

Chapter 4: Study Results

4.1 - Introduction

This chapter presents the results of the principal components analysis along with the survey response rate at an aggregate and partnership/board level, an overview of survey demographics and the statistical results of the hypotheses testing. Because of the importance of trust in this study, prior to hypotheses testing, two linear regressions were run; one for the two questions on the survey representing "Mutual respect, understanding, and trust," representing the variable, "Trust" and one for the length of time served on the board, representing the variable, "Time." This was done in order to determine how much the dependent variable, "Perception of Collaboration," was explained by these variables. The "Time" variable explained only 1.2% of the "Perception of Collaboration" with a significance of .230, and therefore was not further explored. The variable "Trust" explained 55.30% of the "Perception of Collaboration," with a significance of .000. After this test, "Trust" was confirmed to be the most impactful variable. The survey results section explains the other 44.7% of the "Perception of Collaboration" that was not explained.

4.2 - Principal Components Analysis Results

Prior to performing the principal components analysis, the suitability of the data was assessed. Inspection of the correlation matrix revealed that no variables were competing for multicollinearity and therefore, all variables were retained. The Kaiser-Meyer-Olkin measure of sampling adequacy was .927, exceeding the recommended value of .6 (Tabachnick & Fidell, 2006) and the Bartlett's Test of Sphericity reached statistical significance ($\chi^2(231) = 1827.60$, p <.001), supporting the factorability of the correlation matrix. Finally, the communalities were all above .4, further confirming that each variable shared some common variance with other variables. Given these indicators, the principle components analysis was conducted with all 22 variables.

The principle components analysis revealed the presence of four components with eigenvalues exceeding 1, with Component 1 explaining 49.37%, Component 2 explaining 5.87%, Component 3 explaining 5.31%, and Component 4 explaining 4.92% of the variance respectively (Appendix H). An inspection of the scree plot (Appendix I) revealed a break after the fourth component where Eigenvalues reached below 1.0. This confirmed the decision to retain four components. Appendix J shows the unrotated loadings of the variables on the four components.

Rotation was used to improve the interpretability of the results and varimax rotation was requested. The Rotated Component Matrix (Appendix K) revealed that all components had positive loadings. Interpretation of the rotated factor loadings revealed four patterns of loadings. Component 1 included 13 variables with components from .816 - .476: (1) Skilled Leadership (.816); (2) Adaptability (.780); (3) Concrete and attainable goals (.735); (4) Evaluation and continuous learning (.726); (5) Shared Vision (.721); (6) Open and frequent communication (.687); (7) Mutual respect, understanding, and trust (.644); (8) Established informal relationships and communication links (.637); (9) Appropriate pace of development (.605); (10) Engaged stakeholders (.569); (11) Unique purpose (.539); (12) Development of clear roles and policy guidelines (.498); and (13) Members share a stake in both process and outcome (476). Component 1 was renamed to be "Partnership Capacity".

Component 2 consisted of four variables clustered together from .847 - .497: (1) Multiple layers of Participation (.847); (2) Flexibility (.582); (3) Appropriate cross section of members (.563); and (4) Ability to compromise (.497). Component 2 was renamed to be "Partnership

Responsiveness". Component 3 consisted of two variables with component loadings between .807 - .749: (1) Collaborative group seen as a legitimate leader in the community (.807); and (2) History of collaboration or cooperation in the community (.749). Component 3 was renamed to be "Partnership Legitimacy". Component 4 consisted of three variables with component loadings from .713 - .524: (1) Favorable political and social climate (.713); (2) Members see collaboration as being in their self-interest (.709); and (3) Sufficient funds, staff, materials, and time (.524). Component 4 was renamed to "Partnership Momentum."

4.3 - Survey Results

The following two sections outline the survey response rates and the demographic characteristics of the survey respondents.

4.3.1 - Survey Distribution and Response Rates

Individuals were selected for participation if they were serving as a board member on at least one of the 15 WDBs in Virginia. A total of 459 participants were reached through their Executive Directors and asked to fill out the survey online. A total of 127 surveys were taken (27.7%) and 3 surveys were excluded (N=124). One was excluded because the survey respondent did not indicate which WDB they were serving on, but rather, filled out which committee they were serving on for the WDB. The other two respondents were removed because they did not fall into the primary variable categories of sector and mandatory/non-mandatory participation status. One respondent indicated that they were a part of the private and public sector. This may have occurred because some private sector representatives are also serving as a publicly elected official. The survey was adjusted to allow survey respondents to enter multiple categories for participation in a sector, realizing that they could be a part of more than one sector. This situation was presented during the pilot study; therefore, an adjustment was made to allow multiple entries so that the respondent would not choose to avoid this question. The other respondent answered that they did not know whether they were required to be on the board or not. For one WDB, there were no respondents, therefore, only 14 WDBs were represented in the survey. Five respondents did not completely fill out the survey, however, the responses for questions that were answered were used in the data analysis. The survey distribution and response rates are presented in Table 6.

Table 6

Survey Distribution and Response Rates

WDB Name	Surveys Distributed	Surveys Completed	Response Rate (%)
South Central	23	14	60.9
Greater Peninsula Region	39	20	51.3
Central Region	31	14	45.2
Alexandria/Arlington	32	12	37.5
Bay Consortium Region	24	9	37.5
Southwest Region	35	12	34.3
Crater Region	21	7	33.3
Shenandoah Valley Region	34	8	23.5
Piedmont Region	23	5	21.7
Capital Region	30	6	20.0
Hampton Roads Region	43	8	18.6
Northern Region	44	7	15.9
Blue Ridge Region	25	2	8.0
West Piedmont	27	2	7.4
New River/Mount Rogers Region	28	0	0.0
Total	459	126*	27.7

*127 surveys were completed, but 1 survey respondent did not identify their WDB

4.3.2 - Survey Demographics

The majority of the survey respondents were from the public sector (37.8%), have served on the board for 49 or more months (37.8%) and indicated that they were not required to be on the board (78.7%). The second highest sector to respond was the private sector (33.9%). The second highest response for time served on the board was 25-48 months. Demographic characteristics of survey respondents are presented in Table 7.

Table 7

Demographic Characteristics of Survey Respondents

Sector	Frequency	Percent (%)
Private Sector	43	33.9
Public Sector	48	37.8
Nonprofit Sector	35	27.6
Private & Public Sector	1	0.8
Total	127	100.0
Time Served on the Board		
0-12 months	20	15.7
13-24 months	24	18.9
25-48 months	35	27.6
49+ months	48	37.8
Total	127	100.0
Required to be on the Board		
Yes	26	20.5
No	100	78.7
I don’t know	1	0.8
Total	127	100.0

After removing the three survey respondents, (N = 124), 26 respondents (21%) reported that they were required to be on the board and 98 (79%) reported that they were not. The frequency for the sectors was as follows: private sector - 42 (33.9%); public sector - 48 (38.7%); and the nonprofit sector - 34 (27.4%). The frequency for time served on the board was as follows: 0-12 months – 19 (23.6%); 13-24 months – 24 (29.8%); 25-48 months – 33 (40.9%); and 49+ months – 48 (59.5%).

4.4 - Results for Research Question and Hypotheses

The results of this study are reported for the state of Virginia as a whole, and not by individual partnership/board. There were two research questions guiding this study. They relate to the perception of collaboration between mandated and non-mandated partners at aggregate and disaggregate levels. These and the ensuing hypotheses are explained below.

4.4.1 - Research Question 1

At an aggregate level, are there differences in the perception of collaboration between mandated and non-mandated partners? Three hypotheses were tested.

4.4.1.1 - Hypothesis 1

$H1_0$: In the case of cross-sector partnerships, non-mandated partners do not have a stronger perception of collaboration than mandated partners.

$H1_A$: In the case of cross-sector partnerships, non-mandated partners have a stronger perception of collaboration than mandated partners.

Results

An independent samples *t* test was performed to assess whether the mean for mandated partners differed significantly compared to the mean for non-mandated partners. The assumption of homogeneity of variance was assessed by the Levene test, $F = .549$, $p = .460$; this indicated no significant violation of the equal variance assumption; therefore, the equal variances assumed version of the *t* test was used. The means did not differ significantly, $t\ (122) = .23$, $p = .818$, one-tailed. However, the mandated partners mean ($M = .095$, $SD = 1.681$) was 0.1 higher than the non-mandated partners mean ($M = -.007$, $SD = 2.086$). Therefore, the null hypothesis was accepted, and the alternative hypothesis was rejected. Table 8 details the results.

Table 8

Independent t-test for Mandated/Non-mandated Partners' Perception of Collaboration

	N	Mean	Std. Deviation	df	*t*	Sig.
Mandated Partners	26	.095	1.681	122	.230	.818
Non-mandated Partners	98	-.007	2.086	122	.230	.818

4.4.1.2 - Hypothesis 2

$H2_0$: The perception of collaboration is not different for <u>mandated partners</u> from the private, public and nonprofit sectors.

$H2_A$: The perception of collaboration is different for <u>mandated partners</u> from the private, public and nonprofit sectors.

Results

A one-way analysis of variance (ANOVA) was computed to determine the variances between mandated partners that belonged to one of the following sectors: private, public, or nonprofit. Prior to the analysis, the Levene test for homogeneity of variance was used to examine if there were serious violations of the homogeneity of variance assumption across groups, but no significant violation was found: $F(2,23) = .127$, $p = .881$. The mandated private sector mean ($M = .940$, $SD = 1.603$) was 0.921 higher than the mandated public sector mean ($M = .019$, $SD = 1.818$) and 1.052 higher than the nonprofit mean ($M = -.112$, SD = 1.424). The mandated public sector mean was 0.131 higher than the mandated nonprofit sector mean. There was a difference between group means as determined by the one-way ANOVA, $F(2,23) = .421$, $p = .661$ ($p < .05$). Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. Table 9 details the results.

Table 9

One-way ANOVA for Mandated Partners' Perception of Collaboration by Sector

	Mean	Sum of Squares	df	Mean Square	*F*	Sig.
		2.498	25	1.249	.421	.661
Private Sector	.940					
Public Sector	.019					
Nonprofit Sector	-.112					

4.4.1.3 - Hypothesis 3

$H3_0$: The perception of collaboration is not different for non-mandated partners from the private, public and nonprofit sectors.

$H3_A$: The perception of collaboration is different for non-mandated partners from the private, public and nonprofit sectors.

Results

A one-way analysis of variance (ANOVA) was computed to determine the variances between non-mandated partners that belonged to one of the following sectors: private, public, or nonprofit. Prior to the analysis, the Levene test for homogeneity of variance was used to examine if there were serious violations of the homogeneity of variance assumption across groups, but no significant violation was found: $F(2,95) = .269$, $p = .765$. The non-mandated private sector mean ($M = -.493$, $SD = 2.380$) was 0.700 lower than the non-mandated public sector mean ($M = .206$, $SD = 1.962$) and .927 lower than the nonprofit mean ($M = .434$, $SD = 1.669$). The non-mandated public sector mean was .228 lower than the non-mandated nonprofit sector mean. There was a difference between group means as determined by the one-way ANOVA, $F\ (2,95) = 1.881$, $p = .158$ ($p < .05$). Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. Table 10 details the results.

Table 10

One-way ANOVA for Non-mandated Partners' Perception of Collaboration by Sector

	Mean	Sum of Squares	df	Mean Square	*F*	Sig.
		16.075	97	8.037	1.881	.158
Private Sector	-.493					
Public Sector	.206					
Nonprofit Sector	.434					

Hypotheses 1-3 were related to research question 1. The first hypothesis that non-mandated partners had a stronger perception of collaboration than mandated partners was not supported. However, the mean difference between the mandated and non-mandated partners was only .102. Although the means did not differ significantly, they still have meaning since the study was conducted with a finite population instead of from a sample pulled from a population.

Hypothesis 2 speculated that there was a difference in collaboration between the sectors for mandated partners and that hypothesis was supported. Hypothesis 3 speculated that there was a difference in collaboration between the sectors for non-mandated partners and that hypothesis also was supported. The highest difference of 1.052 was between the private and nonprofit sectors. The difference between the private and public sectors was .921 and .013 for the public and nonprofit sectors. Although the means did not differ significantly, they still have meaning since the study was conducted with a finite population instead of from a sample pulled from a population

Hypothesis 3 speculated that there was also a difference in collaboration between the sectors for non-mandated partners and that hypothesis was supported. The greatest difference of .927 was between the private and nonprofit sectors. The difference between the nonprofit and public sectors was .228 and the difference between the public and private sectors was .699. Although the means did not differ significantly, they still have meaning since the study was conducted with a finite population instead of from a sample pulled from a population.

In summary, mandated partners had a stronger perception of collaboration than non-mandated partners, but only slightly more. This contradicts the literature. There was a greater difference between mandated partners and non-mandated partners with regard to sector. The nonprofit and public sectors had a stronger perception of collaboration for the non-mandated partners group and the private sector had a stronger perception of collaboration for the mandated partners group.

One interesting finding is that the private sector had the strongest perception of collaboration for the mandated partners and the weakest perception of collaboration for the non-mandated partners. The public sector's survey results were more similar for both mandated and non-mandated partners. The nonprofit sector had a stronger perception of collaboration for non-mandated partners and a weaker perception of collaboration for mandated partners. The biggest difference was between the private sector and then the nonprofit sectors, with a marginal difference for the public sector, overall.

The nonprofit sector was also the opposite and had a stronger perception of collaboration for the non-mandated partners and a weaker perception of collaboration for the mandated partners. Table 11 summarizes by sector who (mandated or non-mandated partners) had the strongest or weakest perception of collaboration.

Table 11

Strongest and Weakest Perception of Collaboration for Mandated and Non-Mandated Partners by Sector

Sector	Strongest Perception of Collaboration	Weakest Perception of Collaboration
Private	Mandated Partners	Non-Mandated Partners
Public	Non-Mandated Partners	Mandated Partners
Nonprofit	Non-Mandated Partners	Mandated Partners

4.4.2 - Results for Research Question 2

The second research question continues the same analysis but after separating collaboration into four component parts using principal component analysis. The components are: (1) "Partnership Capacity," (2) "Partnership Responsiveness," (3) "Partnership Legitimacy," and (4) "Partnership Momentum." Each hypothesis (below) represents testing for one component. For Hypotheses 4-7, an independent *t*-test was used to determine the difference between the two groups (mandated or not). For Hypotheses 8-11, a one-way analysis of variance (ANOVA) was used to find the relationship between mandated partners' perception of collaboration that belong to the following sectors: private, public, or nonprofit for each component. Hypotheses 12-15 used a similar approach, but for non-mandated partners.

4.4.2.1 - Hypothesis 4

$H4_{0:}$ Non-mandated partners do not have a stronger perception of "Partnership Capacity" than mandated partners.

$H4_{A}$: Non-mandated partners have a stronger perception of "Partnership Capacity" than mandated partners.

Results

An independent samples *t* test was performed to assess whether the means for mandated partners perception of collaboration for the four collaboration components determined by principal components analysis differed significantly compared to the means for non-mandated partners. For Component 1, "Partnership Capacity," the assumption of homogeneity of variance was assessed by the Levene test, $F = 1.119$, $p = .292$; this indicated no significant violation of the equal variance assumption; therefore, the equal variances assumed version of the *t* test was used. The means did not differ significantly, $t\ (122) = -.265$, $p = .792$, one-tailed. Yet, the mandated partners mean ($M = -.033$, $SD = .828$) was 0.058 lower than the non-mandated partners mean ($M = .025$, $SD = 1.046$), therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. Table 12 details the results.

4.4.2.2 - Hypothesis 5

$H5_{0:}$ Non-mandated partners do not have a stronger perception of "Partnership Responsiveness" than mandated partners.

$H5_{A}$: Non-mandated partners have a stronger perception of "Partnership Responsiveness" than mandated partners.

Results

An independent samples *t* test was performed to assess whether the means for mandated partners perception of collaboration for the four collaboration components determined by principal components analysis differed compared to the means for non-mandated partners. For Component 2, "Partnership Responsiveness," the assumption of homogeneity of variance was assessed by the Levene test, $F = .179$, $p = .673$; this indicated no significant violation of the equal variance assumption; therefore, the equal variances assumed version of the *t* test was used. The means did not differ significantly, $t\,(122) = -1.053$, $p = .295$, one-tailed. Yet, the mandated partners mean ($M = -.187$, $SD = .993$) was .233 lower than the non-mandated partners mean ($M = .047$ $SD = 1.01$), therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. Table 12 details the results.

4.4.2.3 - Hypothesis 6

$H6_{0:}$ Non-mandated partners do not have a stronger perception of "Partnership Legitimacy" than mandated partners.

$H6_{A}$: Non-mandated partners have a stronger perception of "Partnership Legitimacy" than mandated partners.

Results

An independent samples *t* test was performed to assess whether the means for mandated partners perception of collaboration for the four collaboration components determined by principal components analysis differed compared to the means for non-mandated partners. For Component 3, "Partnership Legitimacy," the assumption of homogeneity of variance was assessed by the Levene test, $F = 3.564$, $p = .061$; this indicated no significant violation of the equal variance assumption; therefore, the equal variances assumed version of the t test was used. The means did differ significantly, t (122) = 2.137, $p = .035$, one-tailed. The mandated partners mean ($M = .374$, $SD = .700$) was 0.470 higher than the non-mandated partners mean ($M = -.094$, $SD = 1.055$).), therefore, the null hypothesis was accepted, and the alternative hypothesis was rejected. Table 12 details the results.

4.4.2.4 - Hypothesis 7

$H7_{0:}$ Non-mandated partners do not have a stronger perception of "Partnership Momentum" than mandated partners.

$H7_{A}$: Non-mandated partners have a stronger perception of "Partnership Momentum" than mandated partners.

Results

An independent samples t test was performed to assess whether the means for mandated partners perception of collaboration for the four collaboration components determined by principal components analysis differed compared to the means for non-mandated partners. For Component 4, "Partnership Momentum," the assumption of homogeneity of variance was assessed by the Levene test, $F = .005$, $p = .942$; this indicated no significant violation of the equal variance assumption; therefore, the equal variances assumed version of the t test was used. The means did not differ significantly, t (122) = -.331, $p = .741$, one-tailed. Yet, the mandated partners mean ($M = -.059$, $SD = .100$) was .074 lower than the non-mandated partners mean ($M =$

.014, *SD* = 1.009). Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. Table 12 details the results.

Table 12

Independent t-test for Mandated/Non-mandated Partners' Perception of Collaboration using Components produced from Principal Components Analysis

	N	Mean	Std. Deviation	df	*t*	Sig.
Component 1 "Partnership Capacity" Mandated Partners	26	-0.334	.828	122	-.265	.792
Component 1 "Partnership Capacity" Non-mandated Partners	98	.025	1.046	122	-.265	.792
Component 2 "Partnership Responsiveness" Mandated Partners	26	-.187	.993	122	-1.053	.295
Component 2 "Partnership Responsiveness" Non-mandated Partners	98	.0471	1.010	122	-1.053	295
Component 3 "Partnership Legitimacy" Mandated Partners	26	.374	.700	122	2.137	.035*
Component 3 "Partnership Legitimacy" Non-mandated Partners	98	-.094	1.055	122	2.137	.035*
Component 4 "Partnership Momentum" Mandated Partners	26	-.0591	.999	122	-.331	.741

Component 4 "Partnership Momentum" Non-mandated Partners	98	.0144	1.009	122	-.331	.741

*denotes statistical significance p < .05

For Hypotheses 4-7, the only significant result of the four components, was for Hypothesis 6 relating to "Partnership Legitimacy," with a mean difference of .468. Although the means did not differ significantly, they still have meaning since the study was conducted with a finite population instead of from a sample pulled from a population.

After "Partnership Legitimacy," the next biggest difference between mandated and non-mandated partners was for "Partnership Responsiveness" with a mean difference of .234, then "Partnership Momentum," with a mean difference of .073 and finally, "Partnership Capacity," with a mean difference of .058. For Hypotheses 4-7, non-mandated partners had a stronger perception of collaboration for all components, except "Partnership Legitimacy," This was for the most part, expected, based on the literature for mandated and non-mandated partners.

The following four hypotheses pertain to mandated partners only.

4.4.2.5 - Hypothesis 8

$H8_0$: The perception of "Partnership Capacity" is not different for mandated partners from the private, public and nonprofit sectors.

$H8_A$: The perception of "Partnership Capacity" is different for mandated partners from the private, public and nonprofit sectors.

Results

A one-way analysis of variance (ANOVA) was computed to determine the variances between mandated partners' perception of collaboration for the collaboration components determined by principal components analysis that belonged to one of the following groups: private, public or nonprofit. For Component 1, "Partnership Capacity," the Levene test for homogeneity of variance was used to examine if there were serious violations of the homogeneity of variance assumption across groups, but no significant violation was found: $F(2,23) = 1.306$, $p = .290$. There was no statistically significant difference between group means for "Partnership Capacity" as determined by the one-way ANOVA, $F\ (2,23) = .585$, $p = .565$ ($p < .05$). However, the private sector mean ($M = -.523$, $SD = 1.38$) was .536 lower than the public sector mean ($M = .014$ $SD = .666$) and 0.600 lower than the nonprofit sector mean ($M = .078$ $SD = 1.39$). The nonprofit sector was .064 higher than the public sector. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. Table 13 details the results.

4.4.2.6 - Hypothesis 9

$H9_0$: The perception of "Partnership Responsiveness" is not different for <u>mandated</u> partners from the private, public and nonprofit sectors.

$H9_A$: The perception of "Partnership Responsiveness" is different for <u>mandated</u> partners from the private, public and nonprofit sectors.

Results

A one-way analysis of variance (ANOVA) was computed to determine the variances between mandated partners' perception of collaboration for the collaboration components determined by principal components analysis that belonged to one of the following groups: private, public or nonprofit.

For Component 2, "Partnership Responsiveness," the Levene test for homogeneity of variance was used to examine if there were serious violations of the homogeneity of variance assumption across groups, but no significant violation was found: $F(2,23) = .857$, $p = .857$. There was no statistically significant difference between group means for "Partnership Responsiveness" as determined by the one-way ANOVA, $F\ (2,23) = .714$, $p = .500$ ($p < .05$). However, the private sector mean ($M = .333$, $SD = .919$) was .500 higher than the public sector mean ($M = -.165$ $SD = 1.026$) and .840 higher than the nonprofit sector mean ($M = -.509$ $SD = .967$). The public sector was .344 higher than the nonprofit sector. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. Table 13 details the results.

4.4.2.7 - Hypothesis 10

$H10_0$: The perception of "Partnership Legitimacy" is not different for <u>mandated</u> partners from the private, public and nonprofit sectors.

$H10_A$: The perception of "Partnership Legitimacy" is different for <u>mandated</u> partners from the private, public and nonprofit sectors.

Results

A one-way analysis of variance (ANOVA) was computed to determine the variances between mandated partners' perception of collaboration for the collaboration components determined by principal components analysis that belonged to one of the following groups: private, public or nonprofit.

For Component 3, “Partnership Legitimacy,” the Levene test for homogeneity of variance was used to examine if there were serious violations of the homogeneity of variance assumption across groups, but no significant violation was found: $F(2,23) = .166$, $p = .848$. There was no statistically significant difference between group means for “Partnership Legitimacy” as determined by the one-way ANOVA, $F(2,23) = .878$, $p = .429$ ($p < .05$). However, the private sector mean ($M = .240$, $SD = .798$) was .040 lower than the public sector mean ($M = .280$ $SD = .622$) and .466 lower than the nonprofit sector mean ($M = .707$ $SD = .885$). The nonprofit sector was .430 higher than the public sector. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. Table 13 details the results.

4.4.2.8 - Hypothesis 11

$H11_0$: The perception of “Partnership Momentum” is not different for mandated partners from the private, public and nonprofit sectors.

$H11_A$: The perception of “Partnership Momentum” is different for mandated partners from the private, public and nonprofit sectors.

Results

A one-way analysis of variance (ANOVA) was computed to determine the variances between mandated partners’ perception of collaboration for the collaboration components determined by principal components analysis that belonged to one of the following groups: private, public or nonprofit.

For Component 4, “Partnership Momentum,” the Levene test for homogeneity of variance was used to examine where there were serious violations of the homogeneity of variance assumption across groups, but no significant violation was found: $F(2,23) = .581$, $p = .568$. There was no statistically significant difference between group means for "Partnership Momentum" as determined by the one-way ANOVA, $F(2,23) = 1.809$, $p = .186$ ($p < .05$). However, the private sector mean ($M = .889$, $SD = .461$) was .100 higher than the public sector mean ($M = -.110$ $SD = .1.025$) and 1.277 higher than the nonprofit sector mean ($M = -.388$ $SD = .927$). The public sector was .277 higher than the nonprofit sector. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. Table 13 details the results.

Table 13

One-way ANOVA Mandated Partners' Perception of Collaboration using Components produced from Principal Components Analysis

	N	Mean	Std. Dev.	df	*F*	Sig.
Component 1 "Partnership Capacity"						
Mandated Private Sector	3	-.523	1.384	25	.585	.565
Mandated Public Sector	17	.014	.666	25	.585	.565
Mandated Nonprofit Sector	6	.078	1.037	25	.585	.565
Component 2 "Partnership Responsiveness"						
Mandated Private Sector	3	.333	.919	25	.714	.500
Mandated Public Sector	17	-.165	1.03	25	.714	.500
Mandated Nonprofit Sector	6	-.509	.967	25	.714	.500
Component 3 "Partnership Legitimacy"						
Mandated Private Sector	3	.240	.798	25	.878	.429

Mandated Public Sector	17	.280	.622	25	.878	.429
Mandated Nonprofit Sector	6	.707	.885	25	.878	.429
Component 4 "Partnership Momentum"						
Mandated Private Sector	3	.889	.461	25	1.809	.186
Mandated Public Sector	17	-.110	1.025	25	1.809	.186
Mandated Nonprofit Sector	6	-.388	.927	25	1.809	.186

Hypotheses 8-11 evaluated the four collaboration components for mandated partners only. For the nonprofit sector, the strongest perception of collaboration was for "Partnership Legitimacy," and the weakest perception was for "Partnership Momentum." For the private sector, the strongest perception of collaboration was for "Partnership Momentum," and the weakest perception was for "Partnership Capacity." For the public sector, the strongest perception of collaboration was for "Partnership Legitimacy" and the weakest perception was for "Partnership Responsiveness." The private and nonprofit sectors had the stronger or weaker perceptions of collaboration for each component. The greatest difference, (1.217), was observed for "Partnership Momentum," and was between the private and nonprofit sectors. "Partnership Momentum," flipped for the private and nonprofit sectors in order of the strongest and weakest perception of collaboration. The private sector had the strongest perception of collaboration of the mandated partners, yet the weakest for the non-mandated partners. The nonprofit sector had the strongest perception of collaboration of the non-mandated partners, yet the weakest for the mandated partners.

The next largest difference (.842) was observed for "Partnership Responsiveness," and then "Partnership Capacity," (.601), followed by "Partnership Legitimacy," (.467), all between the nonprofit and private sectors. Although the means did not differ significantly, they still have meaning since the study was conducted with a finite population instead of from a sample pulled from a population

In summary, "Partnership Momentum" had the largest overall difference. The private and nonprofit sectors had the strongest perception of collaboration for the mandated partners. The public sector was in between for all four components. For all components, the private and nonprofit sectors had the biggest differences. Table 14 provides a summary.

Table 14

Comparison of Collaboration Components for Mandated Partners

"Partnership Capacity"	**"Partnership Responsiveness"**	**"Partnership Legitimacy"**	**"Partnership Momentum"**
Nonprofit Sector (*M* = .078);	**Private Sector (*M* = .333);**	**Nonprofit Sector (*M* = .707);**	**Private Sector (*M* = .889);**
Difference: .064	*Difference: .498*	*Difference: .427*	*Difference: .999*
Public Sector (*M* = .014);	Public Sector (*M* = -.165);	Public Sector (*M* = .280);	Public Sector (*M* = -.110);
Difference: .537	*Difference: .344*	*Difference: .04*	*Difference: .278*
Private Sector (*M* = -.523)	Nonprofit Sector (*M* = -.509)	Private Sector (*M* = .240)	Nonprofit Sector (*M* = -.388)
Overall Difference: .601 (H8)	*Overall Difference: .842* (H9)	*Overall Difference: .467* (H10)	*Overall Difference: 1.217* (H11)

The following four hypotheses pertain to non-mandated partners only.

4.4.2.9 - Hypothesis 12

$H12_0$: The perception of "Partnership Capacity" is not different for non-mandated partners from the private, public and nonprofit sectors.

$H12_A$: The perception of "Partnership Capacity" is different for non-mandated partners from the private, public and nonprofit sectors.

Results

A one-way analysis of variance (ANOVA) was computed to determine the variances between non-mandated partners' perception of collaboration for the collaboration components determined by principal components analysis that belonged to one of the following groups: private, public or nonprofit. For Component 1, "Partnership Capacity," the Levene test for homogeneity of variance was used to examine if there were serious violations of the homogeneity of variance assumption across groups, but no significant violation was found: $F(2,95) = 2.800$ $p = .066$. There was no statistically significant difference between group means for "Partnership Capacity" as determined by the one-way ANOVA, $F\ (2,95) = .432$, $p = .650$ (p < .05). Yet, the private sector mean ($M = -.091$, $SD = 1.371$) was .160 lower than the public sector mean ($M = .069$ $SD = .747$) and .231 lower than the nonprofit sector mean ($M = .140$ $SD = .796$). The public sector was .007 lower than the nonprofit sector. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. Table 15 details the results.

4.4.2.10 - Hypothesis 13

H13₀: The perception of "Partnership Responsiveness" is not different for non-mandated partners from the private, public and nonprofit sectors.

$H13_A$: The perception of "Partnership Responsiveness" is different for non-mandated partners from the private, public and nonprofit sectors.

Results

A one-way analysis of variance (ANOVA) was computed to determine the variances between non-mandated partners' perception of collaboration for the collaboration components determined by principal components analysis that belonged to one of the following groups: private, public or nonprofit.

For Component 2, "Partnership Responsiveness," the Levene test for homogeneity of variance was used to examine if there were serious violations of the homogeneity of variance assumption across groups, but no significant violation was found: $F(2,95) = .552$, $p = .578$. There was no statistically significant difference between group means for "Partnership Responsiveness" as determined by the one-way ANOVA, $F\ (2,95) = .411$, $p = .664$ ($p < .05$). Yet, the private sector mean ($M = .153$, $SD = 1.110$) was .220 higher than the public sector mean ($M = -.067$ $SD = 1.033$) and .127 higher than the nonprofit sector mean ($M = .026$ $SD = .846$). The public sector was .093 lower than the nonprofit sector. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. Table 15 details the results.

4.4.2.11 - Hypothesis 14

$H14_0$: The perception of "Partnership Legitimacy" is not different for non-mandated partners from the private, public and nonprofit sectors.

$H14_A$: The perception of "Partnership Legitimacy" is different for non-mandated partners from the private, public and nonprofit sectors.

Results

A one-way analysis of variance (ANOVA) was computed to determine the variances between non-mandated partners' perception of collaboration for the collaboration components determined by principal components analysis that belonged to one of the following groups: private, public or nonprofit.

For Component 3, "Partnership Legitimacy," the Levene test for homogeneity of variance was used to examine if there were serious violations of the homogeneity of variance assumption across groups, but no significant violation was found: $F(2,95) = 1.920$, $p = .152$. There was no statistically significant difference between group means for "Partnership Legitimacy" as determined by the one-way ANOVA, $F(2,95) = .315$, $p = .730$ ($p < .05$). Yet, the private sector mean ($M = -.197$, $SD = 1.25$) was .189 lower than the public sector mean ($M = -.008$ $SD = .976$) and .151 lower than the nonprofit sector mean ($M = -.046$ $SD = .846$). The nonprofit sector was .038 lower than the public sector. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. Table 15 details the results.

4.4.2.12 - Hypothesis 15

$H15_0$: The perception of “Partnership Momentum” is not different for non-mandated partners from the private, public and nonprofit sectors.

$H15_A$: The perception of “Partnership Momentum” is different for non-mandated partners from the private, public and nonprofit sectors.

Results

A one-way analysis of variance (ANOVA) was computed to determine the variances between non-mandated partners’ perception of collaboration for the collaboration components determined by principal components analysis that belonged to one of the following groups: private, public or nonprofit.

For Component 4, “Partnership Momentum,” the Levene test for homogeneity of variance was used to examine if there were serious violations of the homogeneity of variance assumption across groups, but no significant violation was found: $F(2,95) = 1.235$, $p = .295$. The private sector mean ($M = -.357$, $SD = .950$) was .569 lower than the public sector mean ($M = .212$ $SD = 1.124$) and .671 lower than the nonprofit sector mean ($M = .314$ $SD = .803$). The public sector was .102 lower than the nonprofit sector. There was a statistically significant difference between group means for “Partnership Momentum” as determined by the one-way ANOVA, F (2,95) = 4.826, $p = .010$ ($p < .05$). Therefore, the null hypothesis is rejected, and the alternative hypothesis is accepted. Table 15 details the results.

Table 15

One-way ANOVA Non-Mandated Partners' Perception of Collaboration using Components produced from Principal Components Analysis

	N	Mean	Std. Dev.	df	*F*	Sig.
Component 1 "Partnership Capacity"						
Non-mandated Private Sector	39	-.091	1.371	97	.432	.650
Non-mandated Public Sector	31	.069	.069	97	.432	.650
Non-mandated Nonprofit Sector	28	.140	.140	97	.432	.650
Component 2 "Partnership Responsiveness"						
Non-mandated Private Sector	39	.153	1.11	97	.411	.664
Non-mandated Public Sector	31	-.067	1.03	97	.411	.664
Non-mandated Nonprofit Sector	28	.026	.846	97	.411	.664
Component 3 "Partnership Legitimacy"						
Non-mandated Private Sector	39	-.197	1.250	97	.315	.730
Non-mandated Public Sector	31	-.008	.976	97	.315	.730
Non-mandated Nonprofit Sector	28	-.046	.846	97	.315	.730
Component 4 "Partnership Momentum"						
Non-mandated Private Sector	39	-.357	.950	97	4.826	.010*
Non-mandated Public Sector	31	.212	1.124	97	4.826	.010*
Non-mandated Nonprofit Sector	28	.314	.803	97	4.826	.010*

*denotes statistical significance $p < .05$

Hypotheses 12 -15 evaluated the four components of collaboration for non-mandated partners only. For the nonprofit sector, the strongest perception of collaboration was for “Partnership Momentum,” and the weakest perception was for “Partnership Legitimacy.” For the private sector, the strongest perception of collaboration was for “Partnership Responsiveness,” and the weakest perception was for “Partnership Momentum.” For the public sector, the strongest perception of collaboration was for “Partnership Momentum” and the weakest perception was for “Partnership Responsiveness.” The largest difference, (.671), was observed for “Partnership Momentum.” “Partnership Momentum” had the greatest difference with the private sector and was significantly different from the nonprofit and public sectors. The next largest difference, (.231), was observed for “Partnership Capacity,” also between the private and nonprofit sectors. For the two components, “Partnership Legitimacy,” and “Partnership Responsiveness,” the greatest difference was between the public and private sectors. Although these latter means did not differ significantly, they still have meaning since the study is was conducted with a finite population instead of from a sample pulled from a population.

Overall, there was a greater difference in perception of collaboration, by collaboration components between mandated partners and non-mandated partners with regard to sector. The following were observed:

- The nonprofit and public sectors had a stronger perception of collaboration for the non-mandated partners, with the nonprofit sector having the strongest overall. The private sector and the public sector had a stronger perception of collaboration for the mandated partners, with the private sector having the strongest overall.
- For both mandated and non-mandated partners, there was a greater difference of the perception of collaboration between the private and nonprofit sectors, followed by the

next greatest difference between the private and public sectors, and then the public and nonprofit sectors.

- The private sector had the strongest perception of collaboration for the mandated partners group, and a much lower perception for the non-mandated partners group. The public sector had a stronger perception of collaboration for the mandated partner group, but not much more. The nonprofit partner group had much stronger perception of collaboration then the non-mandated partner group.
- The strongest and weakest perceptions of collaboration, overall, for the public and nonprofit sectors were on the mandated side.
- The private sector had the strongest perception of collaboration for "Partnership Responsiveness" for both the mandated and non-mandated partner groups. The private sector had the weakest perception of collaboration for "Partnership Legitimacy" for both the mandated and non-mandated partners.
- For the mandated partners, the public and nonprofit sectors ranked the four collaboration components in the same order.
- For the non-mandated partners, the public and nonprofit sectors had stronger perceptions of collaboration for "Partnership Momentum," and "Partnerships Capacity." The private sector had the weakest perception of collaboration for "Partnership Momentum."

Additionally, mandated and non-mandated partners, individually, had similarities with regard to the four components of collaboration, but when the mandated and non-mandated partners were compared by sector, there were greater differences. When comparing the mandated and non-mandated partners by sector, both the mandated and non-mandated groups, individually, had the greatest difference for "Partnership Momentum" and the least amount of difference for

"Partnership Legitimacy." The greatest difference between the mandated and non-mandated partners, overall, was for "Partnership Legitimacy" and "Partnership Responsiveness." This was followed by "Partnership Momentum," and lastly, "Partnership Capacity". When comparing mandated and non-mandated partners, the strongest and weakest perception of collaboration for each sector was not the same for any of the components. The biggest differences by sector between mandated and nonmandated partner groups were in the following order:

- Nonprofit Sector– "Partnership Legitimacy, Momentum, Responsiveness, Capacity"
- Public Sector– "Partnership Momentum, Legitimacy, Responsiveness, Capacity"
- Private Sector– "Partnership Momentum, Legitimacy, Capacity, Responsiveness"

Table 16 provides a summary.

Table 16

Comparison of Collaboration Components for Non-mandated Partners

"Partnership Capacity"	"Partnership Responsiveness"	"Partnership Legitimacy"	"Partnership Momentum"
Nonprofit Sector **(*M* = .140)**;	**Private Sector** **(*M* = .153)**;	**Public Sector** **(*M* = -.008)**;	**Nonprofit Sector** **(*M* = .314)**;
Difference: .071	*Difference: .127*	*Difference: .038*	*Difference: .102*
Public Sector (*M* = .069);	Nonprofit Sector (*M* = .026);	Nonprofit Sector (*M* = -.046);	Public Sector (*M* = .212);
Difference: .160	*Difference: .093*	*Difference: .150*	*Difference: .569*
Private Sector (*M* = -.091)	Public Sector (*M* = -.067)	Private Sector (*M* = -.197)	Private Sector (*M* = -.357)
Overall Difference: .231 (H8)	*Overall Difference: .220* (H9)	*Overall Difference: .189* (H10)	*Overall Difference: .671* (H11)

The following two tables summarize the strongest and weakest perception of collaboration for each sector for mandated and non-mandated partners.

Table 17

Strongest and Weakest Perception of Collaboration for Mandated Partners

Sector	Strongest Perception of Collaboration	Weakest Perception of Collaboration
Private	"Partnership Momentum"	"Partnership Capacity"
Public	"Partnership Legitimacy"	"Partnership Responsiveness"
Nonprofit	"Partnership Legitimacy"	"Partnership Momentum"

Table 18

Strongest and Weakest Perception of Collaboration for Non-mandated Partners

Sector	Strongest Perception of Collaboration	Weakest Perception of Collaboration
Private	"Partnership Responsiveness"	"Partnership Momentum"
Public	"Partnership Momentum"	"Partnership Responsiveness"
Nonprofit	"Partnership Momentum"	"Partnership Legitimacy"

Another way to look at the differences in perception of collaboration is to compare each sector from the mandated and the non-mandated groups. Table 19 details the results.

Table 19

Comparison of Strongest and Weakest Perception of Collaboration by Component

	Mandated Partners		Non-mandated Partners	
	Strongest	Weakest	Strongest	Weakest
"Partnership Capacity"	Nonprofit Sector	Private Sector	Nonprofit Sector	Private Sector
"Partnership Responsiveness"	Private Sector	Nonprofit Sector	Private Sector	Public Sector
"Partnership Legitimacy"	Nonprofit Sector	Private Sector	Public Sector	Private Sector
"Partnership Momentum"	Private Sector	Nonprofit Sector	Nonprofit Sector	Private Sector

For the mandated group, the private and nonprofit sectors had the strongest or weakest collaboration for each component. The next largest difference after "Partnership Momentum" was observed for "Partnership Responsiveness," and then "Partnership Capacity," followed by "Partnership Legitimacy."

For the non-mandated group, after "Partnership Momentum," the next largest difference was observed for "Partnership Capacity," also between the private and nonprofit sectors. An interesting result was that for the mandated partners, the public and nonprofit sectors ranked the four collaboration components in the same order.

4.5 - Significance of Trust

The variable "Trust" was used to determine if there was a difference in the perception of trust between mandated and non-mandated partners. The significance of trust was tested by determining the correlation of "Trust" to the four collaboration components produced from the principle components analysis: (1) "Partnership Capacity," (2) "Partnership Responsiveness," (3) "Partnership Legitimacy," and (4) "Partnership Momentum."

4.5.1 - Trust of Mandated and Non-Mandated Partners

In order to know the significance of trust, an independent *t*-test was conducted to determine which group (mandated or non-mandated partners) had a stronger perception of trust. The two questions on the survey representing "Mutual respect, understanding, and trust" represented the variable "Trust." The assumption of homogeneity of variance was assessed by the Levene test, $F = .276$, $p = .601$; this indicated no significant violation of the equal variance assumption; therefore, the equal variances assumed version of the *t* test was used. The means did not differ significantly, $t\ (122) = -1.066$, $p = .289$, two-tailed. However, the non-mandated partners mean ($M = 8.143$, $SD = 1.429$) was 0.1 higher than the mandated partners mean ($M = 7.801$, $SD = 1.415$). Although the means did not differ significantly, they still have meaning since the study was conducted with a finite population instead of from a sample pulled from a population. There was a stronger perception of trust for the non-mandated partners. Table 20 details the results.

Table 20

Independent t-test for Trust with Mandated/Non-mandated Partners

	N	Mean	Std. Deviation	df	*t*	Sig.
Mandated Partners	26	7.801	1.415	122	-1.066	.289
Non-mandated Partners	98	8.143	1.429	122	-1.066	.289

4.5.2 - Correlation of Trust and Collaboration

The variable "Trust" was tested for correlation to the four collaboration components produced from the principle components analysis: (1) "Partnership Capacity," (2) "Partnership Responsiveness," (3) "Partnership Legitimacy," and (4) "Partnership Momentum." In order to analyze "Trust" with the overall "Perception of Collaboration," a correlation analysis was run to produce a correlation coefficients matrix for the variable "Trust," the four components (named above) and the "Perception of Collaboration." "Trust" was correlated the highest to the overall "Perception of Collaboration" and then to Component 1, "Partnership Capacity." The lowest correlations to the four components was for "Partnership Legitimacy," and "Partnership Momentum." The correlation matrix is presented in Table 21.

Table 21

Correlation Matrix for Trust, Collaboration Components and the Perception of Collaboration

	Correlation to Trust
Component 1: "Partnership Capacity"	.644**
Component 2: "Partnership Responsiveness"	.414**
Component 3: "Partnership Legitimacy"	.224*
Component 4: "Partnership Momentum"	.202*
Perception of Collaboration (PC)	.744**

**denotes statistical significance p < .01; *denotes statistical significance p < .05

4.6 - Summary of Hypotheses Testing and Results

After hypotheses testing, there was support for 13 hypotheses and no support for two hypotheses. Tables 19 -21 show a summary of the hypotheses testing and whether there was support or not. Of the tests, only hypotheses 6 and 15 had statistically significant results. While the differences between the means of the other hypotheses are not statistically significant, they are nevertheless salient because they are differences between population means (as opposed to sample means).

Table 22

Summary of Hypotheses and Results

	Hypotheses	Results	*Denotes Significant Result
H1$_A$	In the case of cross-sector partnerships, non-mandated partners do have a stronger perception of collaboration than mandated partners. **Mandated** ***($M = .095$);*** Non-mandated ($M = -.007$)	No Support	
The following two hypotheses relate to collaboration from the private, public and nonprofit sectors for mandated partners (H2) and non-mandated partners (H3).			
H2$_A$	The perception of collaboration is different for <u>mandated partners</u> from the private, public and nonprofit sectors. **Private ($M = .940$)**; Public ($M = .019$); Nonprofit ($M = -.112$)	Support	
H3$_A$	The perception of collaboration is different for <u>non-mandated partners</u> from the private, public and nonprofit sectors. **Nonprofit ($M = .434$)**; Public ($M = .206$); Private ($M = -.493$)	Support	
The following four hypotheses (H4, H5, H6, H7) relate to the collaboration components derived from principal components analysis and the differences in them between mandated and non-mandated partners.			
H4$_A$	Non-mandated partners have a stronger perception of “Partnership Capacity” than mandated partners. **Non-mandated (*$M = .025$*)***;* Mandated *($M = -.033$)*	Support	
H5$_A$	Non-mandated partners have a stronger perception of “Partnership Responsiveness” than mandated partners. **Non-mandated (*$M = .047$*)***;* Mandated *($M = -.187$)*	Support	
H6$_A$	Non-mandated partners have a stronger perception of “Partnership Legitimacy” than mandated partners. **Mandated** ***($M = .374$)****;* Non-mandated ($M = -.094$)	No Support	*

H7$_A$	Non-mandated partners have a stronger perception of "Partnership Momentum" than mandated partners. **Non-mandated (*M* =.014)**; Mandated *(M = -.059)*	Support	
The following four hypotheses (H8, H9, H10, H11) relate to the collaboration components derived from principal components analysis and for the differences in them between mandated partners from the private, public and nonprofit sectors only.			
H8$_A$	The perception of "Partnership Capacity" is different for <u>mandated</u> partners from the private, public and nonprofit sectors. **Nonprofit (*M* = .078)**; Public (*M* = .014); Private (*M* = -.523)	Support	
H9$_A$	The perception of "Partnership Responsiveness" is different for <u>mandated</u> partners from the private, public and nonprofit sectors. **Private (*M* = .333)**; Public (*M* = -.165); Nonprofit (*M* = -.509)	Support	
H10$_A$	The perception of "Partnership Legitimacy" is different for <u>mandated</u> partners from the private, public and nonprofit sectors. **Nonprofit (*M* = .707)**; Public (*M* = .280); Private (*M* = .240)	Support	
H11$_A$	The perception of "Partnership Momentum" is different for <u>mandated</u> partners from the private, public and nonprofit sectors. **Private (*M* = .889)**; Public (*M* = -.110); Nonprofit (*M* = -.388)	Support	
The following four hypotheses (H12, H13, H14, H15) relate to the collaboration components derived from principal components analysis and for the differences in them between non-mandated partners from the private, public and nonprofit sectors only.			
H12$_A$	The perception of "Partnership Capacity" is different for <u>non-mandated</u> partners from the private, public and nonprofit sectors. **Nonprofit (*M* = .140)**; Public (*M* = .069); Private (*M* = -.091)	Support	
H13$_A$	The perception of "Partnership Responsiveness" is different for <u>non-mandated</u> partners from the private, public and nonprofit sectors. **Private (*M* = .153)**; Nonprofit (*M* = .026); Public (*M* = -.067)	Support	

H14$_A$	The perception of "Partnership Legitimacy" is different for non-mandated partners from the private, public and nonprofit sectors. **Public (*M* = -.008)**; Nonprofit (*M* = -.046); Private (*M* = -.197)	Support	
H15$_A$	The perception of "Partnership Momentum" is different for non-mandated partners from the private, public and nonprofit sectors. **Nonprofit (*M* = .314)**; Public (*M* = .212); Private (*M* = -.357)	Support	*

Note: The strongest perception of collaboration is in boldface and means are arranged in order from highest to lowest.

The following table is a visual representation of the results represented as means and their corresponding hypotheses.

Table 23

Summary of Overall Results

Par. Status	**Capacity**	**Responsiveness**	**Legitimacy**	**Momentum**	**Par. Status and Sector**	**Capacity**	**Responsiveness**	**Legitimacy**	**Momentum**
Mandated Partners ***(M = .095)*** (H1)	Mandated *(M = -.033)* (H4)	Mandated *(M =-.187)* (H5)	**Mandated** ***(M =.374)*** (H6)*	Mandated *(M =-.059)* (H7)	**Private Sector** **(*M* = .940);** Public Sector (*M* = .019); Nonprofit Sector (*M* = -.112) (H2)	**Nonprofit Sector** **(*M* = .078)**; Public Sector (*M* = .014); Private Sector (*M* = -.523) (H8)	**Private Sector** **(*M* = .333)**; Public Sector (*M* = -.165); Nonprofit Sector (*M* = -.509) (H9)	**Nonprofit Sector** **(*M* = .707)**; Public Sector (*M* = .280); Private Sector (*M* = .240) (H10)	**Private Sector** **(*M* = .889)**; Public Sector (*M* = -.110); Nonprofit Sector (*M* = -.388) (H11)
Non-mandated Partners *(M = -.007)*	**Non-mandated** ***(M = .025)***	**Non-mandated** ***(M = .047)****;*	Non-mandated *(M =-.094)*	**Non-mandated** ***(M =.014)****;*	**Nonprofit Sector** **(*M* = .434)**; Public Sector (*M* = .206); Private Sector (*M* = -.493) (H3)	**Nonprofit Sector** **(*M* = .140)**; Public Sector (*M* = .069); Private Sector (*M* = -.091) (H12)	**Private Sector** **(*M* = .153)**; Nonprofit Sector (*M* = .026); Public Sector (*M* = -.067) (H13)	**Public Sector** **(*M* = -.008);** Nonprofit Sector (*M* = -.046) Private Sector (*M* = -.197); (H14)	**Nonprofit Sector** **(*M* = .314)**; Public Sector (*M* = .212); Private Sector *(M* = -.357) (H15)*

Denotes Statistically Significant *

Chapter 5: Discussion and Recommendations

5.1 - Introduction

Cross-sector partnerships that combine the perspectives and needs of public, private, and nonprofit sectors have been used to address public policy challenges. These partnerships, whether mandated or volitional, are formed in response to issues that no individual partner or sector can address effectively on its own and each sector provides unique contributions to the partnership. Yet, lacking effective collaboration, cross-sector partnerships can failure. Some of these partnerships, particularly regional partnerships, are riddled with challenges to collaboration, such as competition fueled by scare and sometimes declining public resources, lack of goal congruity, and trust concerns. These challenges can fuel conflict because cross-sector partnerships tend to create and enforce silos because of the inherent differences in the partners. This is further complicated by the complexities that are presented when partners are mandated to be a part of a partnership.

Research has shown that trust and reputation among partners play an important role in the performance of partnerships. Trust between partners is a measure of the strength, durability, and ultimately, the efficiency and effectiveness of these relationships. Transaction Cost Economics (TCE) theory allows us to understand the transactions within these partnerships and provides a mechanism to rigorously address such factors as trust. However, it is not clear what happens to trust when partnerships are required by government policy. Trust reduces transaction costs and therefore, this study used a TCE approach as its theoretical framework. Although other studies have used a TCE framework, the application of TCE theory to mandated and non-mandated partners in cross-sector partnerships remains less well explored. Additionally, there is little research about linkages between the private, public and nonprofit sectors when they partner together, particularly in partnerships that are not voluntary in nature.

This study sought to determine if collaboration was perceived differently for mandated partnerships that had volitional and non-volitional (mandated) partners and if these perceptions of collaboration were also affected by the partners' sector identity. For instance, will collaboration and trust be more likely to be positively perceived when partners are mandated or when they are volitional? And how does this perceived collaboration affect transaction costs and ultimately, the success of these partnerships? To answer these questions, this study used a non-experimental, quantitative research design and was cross-sectional.

The Wilder Collaboration Factors Inventory, a collaboration survey, was sent to a defined population of the 15 Governor-certified workforce board members across Virginia, as mandated to exist by the Workforce Innovation and Opportunity Act (WIOA). The survey contained questions related to 22 factors (variables) that influence the success of collaboration. The expectation was that non-mandated partners would have a stronger perception of collaboration than mandated partners. Additionally, it was hypothesized that partners from different sectors would perceive collaboration differently.

5.2 - Summary and Discussion of Results

The research questions in this study sought to determine whether collaboration was perceived differently for cross-sector partnerships that had volitional and non-volitional (mandated) partners and if perceptions of collaboration were different when collaboration was disaggregated into components. From the study results, both research questions were answered and overall, 13 of the 15 hypotheses were supported. The findings in this study are consistent with the literature on the importance of trust and collaboration. The results confirmed that the perception of collaboration differs when partnerships have mandated partners. Contrary to the literature, mandated partners had a slightly stronger perception of collaboration than non-mandated ones, something that was traced to the sectoral origins of the partners. This was surprising based on expectations that trust would be stronger in the case of non-mandated partners. This underscored the importance of analyzing partnerships by sector rather than just as an aggregate.

Also, it was determined that the length of time served on the board, or the "Time" variable only explained a small portion (1.2%) of the "Perception of Collaboration." This was a little surprising, considering that the literature supports that trust is normally built over time. The variable "Trust" explained 55.3% of the "Perception of Collaboration," and this indicated that "Trust" explained more than "Time" in this study.

Furthermore, in this study, other important conclusions were made about the complex nature of cross-sector partnerships, particularly with mandated and non-mandated partners and the differences in the perception of collaboration that result from them.   Further disaggregation was obtained by dissecting collaboration into four components. All four components: (1) "Partnership Capacity;" (2) "Partnership Responsiveness;" (3) "Partnership Legitimacy:" and (4) "Partnership Momentum" were perceived differently and for all components except "Partnership Legitimacy," the non-mandated partners perceived collaboration more strongly. As non-mandated partners were hypothesized to have a stronger perception of collaboration overall, this was expected based on the collaboration partnership literature. Nor was this surprising because trust was perceived to be stronger by the non-mandated partners earlier in the study. This indicates the importance of analyzing components of collaboration within cross-sector partnerships in order to better determine how transaction costs may be affected. Clearly a disaggregated and deeper analysis provided more insight than just observing collaboration as a whole.

5.2.1 - Analysis of Perception of Collaboration by Sector

For both mandated and non-mandated partners, there was a greater difference in perception of collaboration between the private and nonprofit sectors, followed by the next largest difference between the private and public sectors, and the lowest difference between the public and nonprofit sectors. This result is important in understanding which sectors have similar and dissimilar perceptions of collaboration in the partnership. Surprisingly, the private and nonprofit sectors showed the greatest difference in their perception of collaboration compared to the difference between the private and public sectors. The surprise emerges because typically the public and private sectors are seen as the most culturally dissimilar, particularly as more nonprofits are starting to generate revenue and are commonly associated with associations that support private sector causes. The public and nonprofit sectors had the most similar perception, something that can be attributed to the similarity between their mission-oriented goals and services, particularly as contrasted with the private sector.

When it came to the nature of the partnership, the nonprofit and public sectors had a stronger perception of collaboration in the case of non-mandated partners while the private sector had a stronger perception of collaboration for mandated partners. The private sector had the strongest perception of collaboration amongst mandated partners. This may be because of the belief that the partnership will not be successful if the survey respondent (private sector) does not participate in the partnership. In WIOA mandates, the law requires that 51% of the board must be from the private sector, yet, the law does not state which members of the private sector must participate. Therefore, this leaves the private sector participation individually by organization to be voluntary. For this reason, there may be more transition of board members and overall representation from the same private sector companies as it is more common for companies in the private sector to start-up, close or relocate to other states.

On the other hand, the public sector is not run by the market, has finite organizations for certain public services and typically has little choice whether they are mandated to be a part of WIOA partnerships. Because of this, specific public sector organizations may have more longevity in the partnership, yet, less flexibility for exiting the partnership.

5.2.2 - Analysis of the Perception of Collaboration by Components

While certain mandated partners may serve on a board longer, they may not necessarily have more trust in the partnership or its partners, whether mandated or not. It may be that mandated partnerships have displaced trust-based partnerships considering that “Trust” most highly correlated with collaboration components, “Partnership Capacity,” and “Partnership Responsiveness,” and those were the two components where there was the most agreement. The two components, “Partnership Legitimacy,” and “Partnership Momentum” where there was the least agreement, had the least correlation to “Trust.” These results suggest that higher trust does lead to a stronger perception of collaboration.

It is interesting that “Trust” was least correlated to the components, “Partnership Legitimacy,” and “Partnership Momentum.” Legitimacy describes the past, or collaboration history/reputation and momentum describes the future, which would include partner’s future actions. Graddy & Ferris (2007) suggest that organizations will prefer partners with who they have ties and social network connections. The private sector had the weakest perception of collaboration for “Partnership Legitimacy,” for both the mandated and non-mandated partners. This may be because the private sector is less like the public and nonprofit sectors and may have had less ties and social connections prior to joining a partnership that mandated a 51% participation from the private sector.

5.2.2.1 - Partnership Legitimacy

“Partnership Legitimacy” was the only collaboration component where mandated partners had a stronger perception as compared to non-mandated ones. The component “Partnership Legitimacy” consisted of two variables: (1) Collaborative group seen as a legitimate leader in the community; and (2) History of collaboration or cooperation in the community. This result could be contributed to the fact that mandated partner organizations would be, by nature, less transient for their participation on the board as described earlier and may know the history of collaboration in the community better. Mandated partners may also perceive that the collaborative group is seen as a legitimate leader in the community because they are required to participate and therefore, would most likely not see themselves as illegitimate to the partnership.

5.2.2.2 - Partnership Momentum

The collaboration component that had the most difference among survey respondents was for “Partnership Momentum” for the non-mandated partners from the private, public and nonprofit sectors. “Partnership Momentum” was created through principal components analysis from the following collaboration variables: (1) Favorable political and social climate; (2)

Members see collaboration as being in their self-interest; and (3) Sufficient funds, staff, materials and time. For the mandated partners, the greatest difference was between the private and nonprofit sectors and for the non-mandated partners there was a statistically significant difference between the private sector and the public and nonprofit sectors. Of all the components, "Partnership Momentum" had the largest difference for both the mandated and non-mandated partner groups. This finding is significant in that the momentum of the partnership would have an effect on transaction costs, and the overall success of the partnership.

5.3 - Implications of the Study

The results of this study affect research and scholarship and professional practices in the public policy and administration fields. These professional practices are mainstream among professional organizations involved in cross-sector partnerships. The results of this study give insights into these domains and are grouped accordingly in the two sections below.

5.3.1 - Implications for Research and Scholarship

In summary, the results of this study revealed interesting outcomes in addition to the expectations of the existing body of literature. First, this study added to the literature by examining collaboration between mandated and non-mandated partners, including a focus on sectors that are often at odds with one another. Contrary to the literature, mandated partners had a slightly stronger perception of collaboration than non-mandated ones, something that was traced to the sectoral origins of the partners. This underscored the importance of analyzing partnerships by sectors rather than as an aggregate and that, clearly, trust is a complex variable.

Second, this study contributed to the collaboration and trust literature by examining the connections between collaboration by dissecting collaboration into components in partnerships that are not voluntary. All four components: (1) “Partnership Capacity;” (2) “Partnership Responsiveness;” (3) “Partnership Legitimacy;” and (4) “Partnership Momentum” were perceived differently in cross-sector partnerships with mandated and non-mandated partners and, except for, “Partnership Legitimacy,” (a variable representing the collaborative past) non-mandated partners perceived collaboration more strongly.

While mandated partners had slightly more collaboration overall, the study revealed areas where collaboration differed by sector and even by sector within different collaboration components. In this sense, the study supported the current literature and confirmed the role of trust and its importance as it relates to transaction costs. But it also showed how other collaboration components can play a significant role, helping to weed out potential tendencies to satisfy government regulations and motivations driven by monetary awards and the desire for a positive public image.

Additionally, the study results have implications on a broader level for the governance of mandated partnerships and how effectively they are working. It is important to consider if the partnership model makes optimal use of transactions to achieve program benefits and reduce costs. There are policy implications for the appropriate amount of government intervention and regulation in regard to the equity of membership in mandated partnerships. Federal legislation has requirements for WDBs that dictate who must participate and, for example, 51% of partner participation must be from the private sector. Because of these specific guidelines, there may be organizations that do not have equal access to join these workforce partnerships and may have a harder barrier to entry.

In summary, the results extend the literature by introducing two broad considerations: (a) sectoral origin or allegiance of partners and (b) whether partners were mandated to participate. As well, by dissecting collaboration into constituent parts, the study advances the literature by showing how capacity, responsiveness, legitimacy and momentum affect collaboration in partnerships

5.3.2 – Implications for Public Policy and Administration

This study contributes to knowledge in the field by serving as a guide to policy makers and practitioners on the importance of the perception of collaboration and its potential impact on transaction costs for partnerships that require partners to join without free will. Policy makers and practitioners can use this study to help evaluate overall cross-sector partnership collaboration and capacity. Cross-sector collaboration, now more than ever, will be critical to solving policy public problems, even crises. As our society advances, so does our reliance on technology. Trust becomes particularly important for this reason as transaction costs, such as monitoring partnership actions, may have to rely on more trust-based assessments. Using economic theory, such as TCE theory, and applying it to a partnership's performance is typically missing in performance evaluation. Taking into account the importance of trust and governance structure will enhance the evaluation of partnership performance and provide insight to any necessary partnership restructuring. Public policy practitioners can evaluate collaboration strategies beyond just a cost-benefit analysis to incorporate transition costs to increase the success of cross-sector partnerships.

5.4 - Recommendations for Future Research

Additional research could be done with a mixed-method approach, including both quantitative and qualitative data collection to gain a better understanding of the extent of collaboration differences by sector. A mixed-method methodology would further explain why some sectors reported such differences for the mandated partner group versus the non-mandated partner group. This approach could shed light, for instance, on reasons why survey respondents may have answered survey questions in a certain way and identify where there was extreme agreement or disagreement so that the perception of collaboration could be further explored. This study could be replicated in other states, which may have slightly different state requirements for mandated partners for WIOA partnerships and would include other regulatory and environmental constants. Additionally, another study could focus more specifically on the individual WDBs in Virginia by reporting more information by partnership level as opposed to just the state aggregate. Finally, a study with a random sample of the over 600 WIOA boards across the country would allow for more data and generalized conclusions on a larger scale.

The data in this study was collected with an online survey format and the response rate was 27.7%. Research that attempts to collect data in person, for example, at a board meeting, could result in a higher response rate. This approach may encourage more survey responses and overcome the possibility that the survey respondents that elected to participate in the study may have been more involved in the partnership than other peers that did not elect to participate in the study. Finally, this study was cross sectional, yet it studied phenomena (collaboration, trust) that evolve and change over time; therefore, a longitudinal study is recommended for a future study.

5.5 - Conclusion

This study has significant implications for the governance of mandated cross-sector partnerships that have both mandated and non-mandated partners. This particularly applies to WIOA partnerships that mandate the makeup of partners in regional workforce boards across the country. The findings of this study are consistent with the literature on the importance of trust and collaboration, yet, this study also introduces the nuances of the complex nature of cross-sector partnerships with mandated and non-mandated partners and the differences in the perception of collaboration that result from them. These differing perceptions of collaboration can affect transaction costs, and therefore, the success of the partnership.

Overall, the results of the study confirm some aspects of the literature, particularly the salience of trust in reducing transaction costs and furthering collaboration. At the same time, the results extend the literature by introducing two broad considerations: (a) sectoral origin or allegiance of partners and (b) whether partners were mandated to participate. As well, by dissecting collaboration into constituent parts, the study advances the literature by showing how capacity, responsiveness, legitimacy and momentum affect collaboration in partnerships. In addition, this study contributes to knowledge in the field by serving as a guide to policy makers and practitioners on the importance of the perception of collaboration and its potential impact on transaction costs for partnerships that require partners to join without free will. Solving complex public policy demands, such as ensuring a highly skilled workforce, will require collaboration from all sectors and in the most effective way possible. Policy makers and practitioners can use this study to evaluate collaboration strategies that increase the success of cross-sector partnerships.

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APPENDIX A

VIRGINIA BOARD OF WORKFORCE DEVELOPMENT

Policy Area: Local and Regional Governance	
Title of Policy: Establishment and Membership of Local Workforce Development Boards	**Number:** 200-02 (2016)
Effective Date: July 1, 2016	**Review by Date:** July 1, 2018
Approved Date: June 23, 2016 **Revision Date:** July 1, 2016 (Rescinds and replaces current Policy 15-01)	**Approved by:** Mark Herzog

I. Purpose

This policy provides guidance for the establishment and membership of Local Workforce Development Boards under the Workforce Innovation and Opportunity Act (WIOA).

II. Summary

Each local workforce development area designated in the Commonwealth shall establish and maintain a Local Workforce Development Board (Local Board). Chief Local Elected Officials (CLEOs) appoint the Local Board, which is certified every two years by the Governor.

The Local Board is part of a statewide workforce system which is business-driven, customer- centric, streamlined, and outcome-oriented. The Local Board shall carry out strategies and policies that support both the economic development mission(s) for the local area and the Virginia Board of Workforce Development's (VBWD) goals. The Local Board sets policy for the local area, in compliance with broader state policy, and is the regional strategic convener, or acts in partnership with a designated regional convener, in addressing workforce development issues, including but not limited to WIOA activities.

The Local Board shall be led by committed business leaders who can ensure that the local workforce system is responsive to current and projected labor market demand, shall contain a broad range of partners needed to develop a comprehensive vision for the local workforce system, and shall focus on strategic decisions, not operational management.

The Local Board has responsibility for making the following critical decisions:

- How best to organize the regional workforce system to most effectively serve the needs of current and emerging private sector employers and job seekers;
- How best to provide comprehensive services to regional private sector employers.
- How best to deploy available resources to achieve negotiated local performance accountability measures and build capacity for continuous improvement; and
- How to expand the resource base and service capability through the development of strategic partnerships, an integrated service delivery system, and generation of additional public and private funding.

III. References

- Workforce Innovation and Opportunity Act (Pub. L. 113-128)
- Training and Employment Notice No. 05-14, *Workforce Innovation and Opportunity Act Announcement and Initial Informational Resources*
- Training and Guidance Letter No. 19-14, *Vision for the Workforce System and Initial Implementation of the Workforce Innovation and Opportunity Act of 2014*
- Notice of Proposed Rulemaking (NPRM) Docket No. ETA-2015-0001, RIN: 1205-AB73: Subpart C

III. Policy

Chief local elected officials shall submit annually to the Virginia Board of Workforce Development updated Local Board membership information including contact information for the Local Board, the annual budget for the Local Board and one-stop operations, and other expenditures. The term "chief local elected official" means the chief elected executive officer of a unit of general local government in a local area or an elected official so designated by the chief local elected official.

A complete list of mandatory and optional Local Workforce Development Board members can be found in Section 107(b) of the Workforce Innovation and Opportunity Act. There is no limit to the number of members the Local Board may have, but it must include all mandatory members.

Mandatory Members

- At least 51% of the members shall be composed of local private sector representatives that represent a broad range of in-demand occupations available in the local labor market. This includes organizations representing businesses that provide employment opportunities that, at a minimum, include high-quality, work relevant training and development in in-demand industry sectors or occupations in the local area.
- Not less than 20%, a minimum of two, of the members of the Local Board, shall be representatives of labor organizations, who have been nominated by local labor federations, and representatives from apprenticeship programs. Community-based organizations that have demonstrated experience and expertise in addressing the employment needs of individuals with barriers to employment, including veterans, persons with disabilities, and "out of school" youth may be included in addition to the aforementioned labor organization representatives.

- At least one representative from the Virginia Employment Commission who administers WIOA Title III activities for the local area who shall be designated by the Virginia Employment Commission.
- At least one regional adult education program manager that directly administers WIOA Title II Adult Education and Family Literacy (AEFLA) activities locally. If there is more than one adult education program operating in the LWDB area and each regional program manager is not represented on the board, it is recommended that regional adult education program managers serve alternating terms.
- At least one representative of a school division Career and Technical Education program which represents programs aligned with the region's targeted industry sectors and demand occupations
- At least one representative from a local community college providing training services who shall be designated by the community college. At least one representative from a regional or local economic and community development entity.
- At least one representative from the Department of Aging and Rehabilitative Services and/or the Department for the Blind and Visually Impaired who administers WIOA Title IV activities for the local area who shall be designated by the two agencies administering vocational rehabilitative services under Title IV of the WIOA

<u>Optional Members</u>

- A representative from a regional planning entity.
- A representative of eligible providers administering WIOA Title I Adult and Dislocated Workers Employment and Training activities.
- A representative of eligible providers administering WIOA Title I Youth Workforce Investment activities.
- A representative of eligible providers administering the Social Security Act Title IV (Part activities.
- A representative of eligible providers administering employment and training activities carried out through the U.S. Department of Health & Human Services' Community Services Block Grant.
- A representative of eligible providers administering employment and training activities carried out through the U.S. Department of Housing and Urban Development's Community Development Block Grant.
- A representative of eligible providers administering Title V of the Older Americans Act programs for engaging low-income senior citizens in community service, employment, and volunteer opportunities.
- A representative of eligible providers administering Section 212 of the Second Chance Act offender reintegration activities.
- A representative of eligible providers administering Supplemental Nutrient Assistance Program Employment and Training activities.
- A representative of eligible providers administering Social Security Ticket to Work, Disability Employment Initiative, and other self-sufficiency programs.
- A representative of eligible providers administering Small Business Association Employment and Training activities.

- A representative of an entity that administers programs serving the local area relating to transportation, housing, and public assistance.
- A superintendent, or designated representative, of a local public school system (other than a representative from a local Career and Technical Education program).
- A representative of higher education providing WIOA activities.
- A representative of a philanthropic organization.
- Any other individual or representative of an entity as the chief elected officials in the local area may determine to be appropriate.

Chairperson

The members of the Local Board shall elect a chairperson from among the private sector representatives. The chairperson shall serve as the Executive Committee Chair and shall identify the method for selecting the chairs for all standing committees and taskforces of the local Board.

Membership Terms

- Members of the Local Board must be individuals with optimum policy-making authority within the organizations, agencies, or entities they represent.
- Members of the Local Board shall be appointed for staggered terms.
- Private sector representatives shall be an appropriate mix of small, medium and large employers that reflect the local labor market, i.e., the business representation shall reflect the industry mix in the local labor market.
- Individuals serving on the Local Board who subsequently retire or no longer hold the position that made them eligible board members may continue to serve on the local Board; however, if their membership category changes as result of their retirement or change in employment status, the local board must account for that change when evaluating overall membership composition.
- Vacancies resulting from resignations or removal of mandatory members must be filled within 90 days.

Conflict of Interest

All members of the Local Board serve a public interest and trust role and have a clear obligation to conduct all affairs in a manner consistent with this concept. All decisions of the Local Board are to be based on promoting the best interest of the state and the public good.

Accordingly:

- All members of the Local Board are subject to the provisions of the State and Local Government Conflict of Interest Act.
- The Local Board shall adopt in its bylaws a conflict of interest policy meeting the minimum standards set forth in the State and Local Government Conflict of Interest

Act. The conflict of interest standards shall apply to all board members (voting and non- voting).

- A member of a Local Board shall neither cast a vote on, nor participate in, any decision- making capacity on the provision of services by such member (or by an organization that such member directly represents); nor on any matter that would provide any direct benefit to such member or the immediate family of such member. Immediate family means (1) a spouse and (2) any other person residing in the same household as the member, who is a dependent of the member or of whom the member is a dependent. Dependent means any person, whether or not related by blood or marriage, which receives from the member, or provides to the member, more than one-half of his financial support.
- Any Local Board member (or specific entity represented by that member) who participates in the development of contract specifications or standards is prohibited from receiving any direct financial benefit from any resulting contract.
- Any Local Board member who participates in a Local Board decision relating to specific terms of a contract, the determination of specific standards for performance of a contract, the development of Invitations for Bid or Requests for Proposals or other such bid processes leading to a contract, or any similar decisions is prohibited from receiving any direct financial benefit from any resulting contract. In addition, no corporation, partnership, sole proprietorship, firm, enterprise, franchise, association, trust, foundation or other entity shall receive the contract if it would create a conflict of interest for the Board member who participated in this manner.
- Each Local Board member shall file a statement of economic interest with the Local Board as a condition of assuming membership and then annually while serving as a Board member. The Chief Local Elected Officials shall determine the composition of the statement of economic interest.
- Any Local Board member with a potential or actual conflict of interest shall disclose that fact to the Local Board as soon as the potential conflict is discovered and, to the extent possible, before the agenda for the meeting involving the matter at issue is prepared. If it is determined during a meeting that a conflict of interest exists, the member must verbally declare such conflict of interest, such declaration must be clearly noted in the minutes, and such member must excuse himself from the remainder of the discussion and voting on that item. Each Local Board member is responsible for determining whether any potential or actual conflict of interest exists or arises during his tenure on the Local Board.
- If a contract or purchase is made by the Local Board involving its own member with a conflict of interest, the Local Board shall justify the terms and conditions of the contract or purchase and document that the contract or purchase was adequately bid or negotiated and that the terms of the contract or price of the purchase are fair and reasonable.
- Local Board members who are also one-stop center operators shall not serve on any committees that deal with oversight of the one-stop system or allocation of resources that would potentially be allocated to that member’s program.

- All members of the Local Board are subject to all other provisions of the State and Local Government Conflict of Interest Act not outlined above.

V. Procedures

Local Board Appointment Process

<u>Nominations and Selection</u>

The Chief Local Elected Officials shall contact the appropriate entities in the local area for nominations to appoint members and/or to fill vacancies on the Local Board from business, local educational entities, and labor representatives. Chief Local Elected Officials may also design a process for nominations of individuals and other types of representation the officials would like to include on the Local Board. Vacancies subsequent to the establishment of the Local Board must be filled in the same manner as the original appointments.

Private sector representatives are to be selected from individuals nominated by local business organizations (ex. business trade associations, chamber of commerce, economic development agencies). Individual businesses may also nominate themselves or provide nominations of other businesses to the chief local elected officials. Private sector representatives can include owners of businesses, chief executives or operating officers of businesses, and other business executives with optimum policy making or hiring authority (ex. Vice Presidents of Human Resources).

Non-mandatory educational entity representatives must be selected from among individuals nominated by regional or local educational agencies, institutions, or organizations representing such local educational entities including local school boards, entities providing vocational education, and postsecondary educational institutions. Labor representatives must be selected from among individuals nominated by local labor federations (or in a local area in which no employees are represented by such organizations, other representatives of employees, such as employee organizations and/or the state AFL-CIO).

For all other members, Chief Local Elected Officials should consult with the appropriate groups in the local area for possible individuals to serve including:

- Representatives of community-based organizations, including organizations representing individuals with disabilities and veterans where such organizations exist in the area.
- Representatives of local economic development agencies, including private sector economic development entities.

Public Participation

Chief Local Elected Officials must provide public notice of the intent to solicit nominations for Local Board membership, including the process to be used for nominations and selection.

APPENDIX B

VIRGINIA COLLABORATION SURVEY

This survey will take approximately 15-25 minutes to complete. Be sure to answer all questions. There are no right or wrong answers.

Your identification is anonymous. Survey results will be kept confidential and will not be reported individually. Results of the survey will be reported aggregately for individual Workforce Development Boards and in total for all Workforce Development Boards in Virginia. Data from demographic questions about organization sector, time served on the board, and whether or not you are required to be on the board will only be reported collectively for all Workforce Development Boards in Virginia.

After the demographic questions, please select the best answer for each survey item. The words "collaboration," "collaborative group," and "collaborative project" are referring to your Workforce Development Board and the work that is being done by that Workforce Development Board only. Please respond to each item as you view the overall Workforce Development Board partnership. If you are not a member of a Workforce Development Board in Virginia, please do not fill out the survey.

Please ensure you hit 'submit' once you have completed the survey to record your answers. Thank you for participating in this survey.

1. Please name the Workforce Development Board that you are serving on.
   ____

2. How long have you served on this Workforce Development Board?

   _____ 0-12 months
   _____ 13-24 months
   _____ 25-48 months
   _____ 49+ months

3. Please indicate whether the organization that you represent on the Workforce Development Board is a private, public or a nonprofit sector organization.

   _____ private sector organization
   _____ public sector organization
   _____ nonprofit sector organization

4. Are you required to serve on this Workforce Development Board?

   _____ Yes
   _____ No
   _____ I don’t know

Factor	Statement	Strongly Disagree	Disagree	Neutral, No Opinion	Agree	Strongly Agree
History of collaboration or cooperation in the community	5. Agencies in our community have a history of working together. 6. Trying to solve problems through collaboration has been common in this community. It has been done a lot before.	1 1	2 2	3 3	4 4	5 5
Collaborative group seen as a legitimate leader in the community	7. Leaders in this community who are not part of our collaborative group seem hopeful about what we can accomplish. 8. Others (in this community) who are not a part of this collaboration would generally agree that the organizations involved in this collaborative project are the "right" organizations to make this work.	1 1	2 2	3 3	4 4	5 5
Favorable political and social climate	9. The political and social climate seems to be "right" for starting a collaborative project like this one. 10. The time is right for this collaborative project.	1 1	2 2	3 3	4 4	5 5
Mutual respect, understanding, and trust	11. People involved in our collaboration trust one another. 12. I have a lot of respect for the other people involved in this collaboration	1 1	2 2	3 3	4 4	5 5
Appropriate cross section of members	13. The people involved in our collaboration represent a cross section of those who have a stake in what we are trying to accomplish. 14. All the organizations that we need to be members of this collaborative group have	1 1	2 2	3 3	4 4	5 5

	become members of the group.					
Members see collaboration as being in their self- interest	15. My organization will benefit from being involved in this collaboration.	1	2	3	4	5
Ability to compromise	16. People involved in our collaboration are willing to compromise on important aspects of our project.	1	2	3	4	5
Members share a stake in both process and outcome	17. The organizations that belong to our collaborative group invest the right amount of time in our collaborative efforts. 18. Everyone who is a member of our collaborative group wants this project to succeed. 19. The level of commitment among the collaboration participants is high.	1 1 1	2 2 2	3 3 3	4 4 4	5 5 5
Multiple layers of participation	20. When the collaborative group makes major decisions, there is always enough time for members to take information back to their organizations to confer with colleagues about what the decision should be. 21. Each of the people who participate in decisions in this collaborative group can speak for the entire organization they represent, not just a part.	1 1	2 2	3 3	4 4	5 5
Flexibility	22. There is a lot of flexibility when decisions are made; people are open to discussing different options. 23. People in this collaborative group are open to different approaches to how we can do our work. They are willing to consider different ways of working.	1 1	2 2	3 3	4 4	5 5

Development of clear roles and policy guidelines	24. People in this collaborative group have a clear sense of their roles and responsibilities. 25. There is a clear process for making decisions among the partners in this collaboration.	1 1	2 2	3 3	4 4	5 5
Adaptability to changing conditions	26. This collaboration is able to adapt to changing conditions, such as fewer funds than expected, changing political climate, or change in leadership. 27. This group has the ability to survive even if it had to make major changes in its plans or add some new members in order to reach its goals.	1 1	2 2	3 3	4 4	5 5
Appropriate pace of development	28. This collaborative group has been careful to take on the right amount of work at the right pace. 29. This group is currently able to keep up with the work necessary to coordinate all the people, organizations, and activities related to this collaborative project.	1 1	2 2	3 3	4 4	5 5
Evaluation and continuous learning	30. A system exists to monitor and report the activities and/or services of our collaboration. 31. We measure and report the outcomes of our collaboration. 32. Information about our activities, services, and outcomes is used by members of the collaborative group to improve our joint work.	1 1 1	2 2 2	3 3 3	4 4 4	5 5 5
Open and frequent communication	33. People in this collaboration communicate openly with one another. 34. I am informed as often as I should be about what is going on in the collaboration.	1 1	2 2	3 3	4 4	5 5

	35. The people who lead this collaborative group communicate well with the members.	1	2	3	4	5
Established informal relationships and communication links	36. Communication among the people in this collaborative group happens both at formal meetings and in informal ways.	1	2	3	4	5
	37. I personally have informal conversations about the project with others who are involved in this collaborative group.	1	2	3	4	5
Concrete, attainable goals and objectives	38. I have a clear understanding of what our collaboration is trying to accomplish.	1	2	3	4	5
	39. People in our collaborative group know and understand our goals.	1	2	3	4	5
	40. People in our collaborative group have established reasonable goals.	1	2	3	4	5
Shared vision	41. The people in this collaborative group are dedicated to the idea that we can make this project work.	1	2	3	4	5
	42. My ideas about what we want to accomplish with this collaboration seem to be the same as the ideas of others.	1	2	3	4	5
Unique purpose	43. What we are trying to accomplish with our collaborative project would be difficult for any single organization to accomplish by itself.	1	2	3	4	5
	44. No other organization in the community is trying to do exactly what we are trying to do.	1	2	3	4	5
Sufficient funds, staff, materials, and time	45. Our collaborative group has adequate funds to do what it wants to accomplish.	1	2	3	4	5
	46. Our collaborative group has adequate "people power" to	1	2	3	4	5

	do what it wants to accomplish.					
Skilled leadership	47. The people in leadership positions for this collaboration have good skills for working with other people and organizations.	1	2	3	4	5
Engaged stakeholders	48. Our collaborative group engages other stakeholders, outside the group, as much as we should.	1	2	3	4	5

APPENDIX C

IRB Approval Letter

Office of Research and Innovation

Office of Research and Innovation
Office of Research Subjects Protection
BioTechnology Research Park
800 East Leigh Street, Suite 3000
Box 980568
Richmond, Virginia 23298-0568

(804) 828-0868
Fax: (804) 827-1448

TO: Niraj Verma
Vanessa Rastberger
CC: Niraj Verma

FROM: VCU IRB Panel A

RE: Niraj Verma ; IRB HM20016721 What Happens When Cross-Sector Partnerships are Mandated? Analyzing Trust through a Transaction Cost Approach

On 8/6/2019 the referenced research study ***qualified for exemption*** according to 45 CFR 46 under exempt category/categories

Category 2(i) Research that only includes interactions involving educational tests, survey or interview procedures, or observation of public behavior when the information obtained is recorded in a manner that the identity of the subjects cannot readily be ascertained

The information found in the electronic version of this study's smart form and uploaded documents now represents the currently approved study, documents, and HIPAA pathway (if applicable). You may access this information by clicking the Study Number above.

If you have any questions, please contact the Office of Research Subjects Protection (ORSP) or the IRB reviewer(s) assigned to this study.

The reviewer(s) assigned to your study will be listed in the History tab and on the study workspace. Click on their name to see their contact information.

Attachment – Conditions of Approval for Exempt Studies

Conditions of Approval for Exempt Studies (version 1/21/2019)

In order to comply with federal regulations and the terms of this approval, the investigator must (*as applicable*):

1. Conduct the research as described in and required by the IRB-approved protocol/smartform.
2. Confirm that all non-VCU sites that have been approved to rely on the VCU IRB for research requiring limited IRB review [45 CFR 46.104(d)(2)(iii), (d)(3)(i)(C), (d)(7), or (d)(8))] are aware of and agree to abide by the reliance relationship and the institutional responsibilities outlined in WPP XVII-6.
3. Submit amendments to the VCU IRB for review and approval before the following types of changes are instituted at any site under the VCU IRB's oversight (VCU sites and non-VCU sites that rely on the VCU IRB):
    - **Change in Principal Investigator**
    - **Addition or removal of non-VCU sites** whenever one or more of the following applies:
        - VCU is the lead site in a multicenter study,
        - A VCU investigator is overseeing study conduct and/or directly, conducting research at another site, and/or
        - De-identified or identifiable research data will be sent to a different site
    - **Any change that poses new risks or increases the risks to participants** including, but not limited to, the following types of changes:
        - Changes in the study's measures or the research intervention, including
            - Changes in behavioral intervention procedures or the use of deception,
            - Changes related to sexual activity, abuse, past or present illicit drug use, illegal activities, other sensitive topics, or other factors that might place participants at risk of civil or criminal liability
            - Changes reasonably expected to provoke psychological distress or that could make participants vulnerable, or
            - Changes that relate to participants' financial standing, employability, educational advancement, or reputation.
        - Changes in the source of secondary information or biospecimens

        - Changes in the confidentiality or privacy protections used by the study, including
            - Changes in the storage location or method of storage of research materials
            - Changes in the identifiers being used to carry out secondary research (regardless of whether identifiers are retained in the research data).
            - Changes related to the sharing of individual-level research data
        - Changes in recruitment strategy
        - Changes in the planned compensation to participants
    - **Changes that alter the category of exemption or that add additional exemption categories**
        - Changes that add procedures or activities not covered by the exempt category(ies) under which the study was originally determined to be exempt
        - Changes in the planned participant population (e.g. addition of children, wards of the state, or prisoner participants, students, control groups, etc.)
        - Changes in the participant identifiers being used and/or collected
        - <u>For studies currently approved under Pre-2018 Common Rule Exempt Category 4</u>: Change in inclusion dates for retrospective record reviews if the new date is after the original approval date for the exempt study. (Example: The approval date for the study is 9/24/18 and the original inclusion dates were 01/01/08-06/30/18. This could be changed to 01/01/06 to 09/24/18 but not to end on 09/25/18 or later.)

          Changes that do not meet these criteria do not have to be submitted to the IRB. If there is a question about whether a change must be sent to the IRB please call the ORSP for clarification.

4. Provide non-English speaking participants with a written translation of the approved consent information in language understandable to the research participant. The IRB must approve the translated version prior to use.
5. Monitor all problems (anticipated and unanticipated) associated with risk to research participants or others.
6. Report Unanticipated Problems (UPs), following the VCU IRB requirements and timelines detailed in WPP VII-6
7. Respond promptly to all inquiries by the VCU IRB and Office of Research Subjects Protection concerning the conduct of the research.

The VCU IRB operates under the regulatory authorities as described within:

- *U.S. Department of Health and Human Services Title 45 CFR 46, Subparts A, B, C, and D and related guidance documents.*
- *U.S. Food and Drug Administration Chapter I of Title 21 CFR 50 and 56 (for FDA regulated research only) and related guidance documents.*
- *Commonwealth of Virginia Code of Virginia 32.1 Chapter 5.1 Human Research (for all research).*

APPENDIX D

To: [Email]

Subject: Study on Collaboration and Transaction Costs in Workforce Partnerships in Virginia

Dear [Name],

I am conducting research on collaboration and transaction costs in workforce cross-sector partnerships and have selected to survey the Workforce Development Boards (WDB) in Virginia. This research is for partial fulfillment of the requirements for the Doctorate in Public Policy and Administration at Virginia Commonwealth University (VCU). The overall scope of this study is to examine collaboration and transaction costs in cross-sector partnerships. It has been determined that, for example, as trust increases, transaction costs decrease, leading to better collaboration and partnership performance.

I am requesting that you send a survey to your WDB members. You will find the survey attached for your review only; the actual survey will be administered online. Your participation is completely voluntary, and your response to this email will confirm your consent to distribute this survey. You should not fill out the survey. The survey will take approximately 15-25 minutes to complete and the name of the survey respondent will not be collected. Results of the study will be used to better understand cross-sector partnerships, collaboration and transaction costs of partnerships.

This study has been reviewed by the VCU Institutional Review Board (IRB), which ensures that research projects involving human subjects follow federal regulations. Please respond back to me via email affirming your consent to participate in the study. After doing so, I will send you an email with a link to the online survey and specific instructions to send to your WDB members only. The survey is intended for WDB members only, not Local Elected Officials (LEOs) that are not appointed to the board or alternate, non-voting members of the board.

Please contact me directly if you have any questions about this study.

Thank you,

Vanessa H. Rastberger
(804) 402-4909
rastbergervh@vcu.edu

APPENDIX E

Email: [Name]

Subject: Study on Collaboration and Transaction Costs in Workforce Partnerships in Virginia

Dear [Name],

Please send the information below to your Workforce Development Board (WDB) members as you previously agreed. You do not need to send this information to anyone outside of the board, such as Local Elected Officials, unless they are on the board and a voting member of the board. Thank you for your participation. I will reach back out to you in one week if I have not received at least a 30% survey response rate. Please let me know when you have sent the survey so I can track the timeframe that I can allow the survey to be open, which is three weeks from the initial send. Thank you.

Vanessa H. Rastberger
(804) 402-4909
rastbergervh@vcu.edu

Email Subject Line: Virginia Collaboration Survey and Study on Transaction Costs in Workforce Partnerships

Dear [Name],

Vanessa H. Rastberger is conducting research on collaboration and transaction costs in workforce cross-sector partnerships and has selected to survey the Workforce Development Boards (WDB) in Virginia. This study is for partial fulfillment of the requirements for the Doctorate in Public Policy and Administration at Virginia Commonwealth University (VCU). The overall scope of this study is to examine collaboration and transaction costs in cross-sector partnerships. It has been determined that, for example, as trust increases, transaction costs decrease, leading to better collaboration and partnership performance.

Please click on this https://redcap.vcu.edu/surveys/?s=C4JF9WMFPLto complete the survey by September 12th, if possible. Please note the survey will close after three weeks. This survey can be taken on a mobile device or iPad as long as you have an internet connection. Your participation is completely voluntary, and by filling out the survey, you are consenting to participate in the study. The survey will take approximately 15-25 minutes to complete. In the interest of anonymity, you will not be asked your name, however, a few demographic questions will be asked. This project has been reviewed by the Virginia Commonwealth University (VCU) Institutional Review Board (IRB), which ensures that research projects involving human subjects follow federal regulations. Results of the study will be used to better understand cross-sector partnerships, collaboration and transaction costs of workforce partnerships.

Please contact Ms. Rastberger directly if you have any questions about this study. She can be reached at (804) 402-4909 and rastbergervh@vcu.edu.

Thank you,

WDB Executive Director

APPENDIX F

Email: [Name]

Subject: Study on Collaboration and Transaction Costs in Workforce Partnerships in Virginia

Dear [Name],

Thank you, [Name]. Per my research protocol, I am reaching out to you one week after the survey was sent to let you know the response rate. I have received X% (X out of X) of responses from your WDB members. If you are able, please resend the information below to the WDB members. If there is anything that I can do to assist in getting a higher response rate, please let me know. Thank you for your participation. I will reach back out to you one final time one week from when you send the reminder to let you know how many responses I have gotten. I am able to share this data with your WDB after the survey is over. Thank you.

Vanessa H. Rastberger

Subject: WDB Study on Collaboration and Transaction Costs in Virginia

Dear [Name],

This is a reminder and follow up email. Vanessa H. Rastberger is conducting research on collaboration and transaction costs in workforce cross-sector partnerships and has selected to survey the Workforce Development Boards (WDB) in Virginia. This study is for partial fulfillment of the requirements for the Doctorate in Public Policy and Administration at Virginia Commonwealth University (VCU). The overall scope of this study is to examine collaboration and transaction costs in cross-sector partnerships. It has been determined that, for example, as trust increases, transaction costs decrease, leading to better collaboration and partnership performance.

Please click on https://redcap.vcu.edu/surveys/?s=C4JF9WMFPL to complete the survey in the next week, if possible. This can be done on a mobile device or iPad as long as you have an internet connection. Your participation is completely voluntary, and by filling out the survey, you are consenting to participate in the study. The survey will take approximately 15-25 minutes to complete. In the interest of anonymity, you will not be asked your name, however, a few demographic questions will be asked. This project has been reviewed by the Virginia Commonwealth University (VCU) Institutional Review Board (IRB), which ensures that research projects involving human subjects follow federal regulations. Results of the study will be used to better understand cross-sector partnerships, collaboration and transaction costs for our WDB and Virginia as a whole.

Please contact Ms. Rastberger directly if you have any questions about this study. She can be reached at (804) 402-4909 and rastbergervh@vcu.edu

Thank you,
WDB Executive Director

APPENDIX G

Email: [Name]

Subject: Last Attempt for Virginia Survey of Workforce Board Members

Dear [Name],

This is my last attempt to collect survey responses from your board. I am following up with you because I have only received a X% response rate (X out of X). However, there were X additional responses after you sent the 1st reminder taking your response rate from X% to X%. Please resend the information below to your WDB members. If there is anything that I can do to assist in getting a higher response rate, please let me know. Thank you for your time and participation. I will be back in touch with a final response rate and after I have done the data analysis. Lastly, can you confirm that you sent the survey to X members or if there is a different number of board members other than what your website reported.

Vanessa H. Rastberger
(804) 402-4909
rastbergervh@vcu.edu

Subject: Last Chance - Virginia Survey with Workforce Board Members on Collaboration and Transaction Costs

Dear [Name],

Vanessa H. Rastberger is conducting research on collaboration and transaction costs in workforce cross-sector partnerships and has selected to survey the Workforce Development Boards (WDB) in Virginia. This study is for partial fulfillment of the requirements for the Doctorate in Public Policy and Administration at Virginia Commonwealth University (VCU). The overall scope of this study is to examine collaboration and transaction costs in cross-sector partnerships. It has been determined that, for example, as trust increases, transaction costs decrease, leading to better collaboration and partnership performance.

Please click here ***https://redcap.vcu.edu/surveys/?s=C4JF9WMFPL*** to complete this survey no later than **October 1st**.Your participation is completely voluntary, and by filling out the survey, you are consenting to participate in the study. The survey will take approximately 15-25 minutes to complete. In the interest of anonymity, you will not be asked your name, however, a few demographic questions will be asked. This project has been reviewed by the Virginia Commonwealth University (VCU) Institutional Review Board (IRB), which ensures that research projects involving human subjects follow federal regulations. Results of the study will be used to better understand cross-sector partnerships, collaboration and transaction costs of partnerships.

Please contact Ms. Rastberger directly if you have any questions about this study. She can be reached at (804) 402-4909 and rastbergervh@vcu.edu

Thank you,
WDB Executive Director

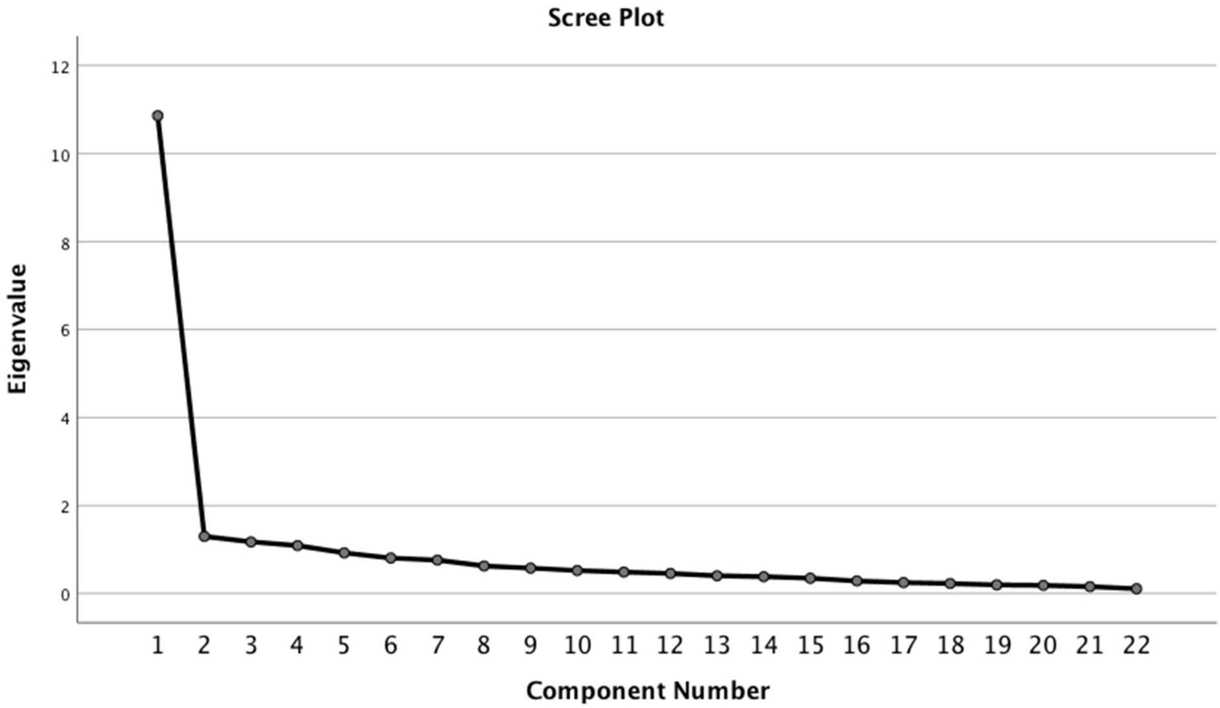
APPENDIX H

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% Variance	Cumulative %
1	10.861	49.367	49.367	10.861	49.367	49.367
2	1.292	5.872	55.239	1.292	5.872	55.239
3	1.167	5.306	60.546	1.167	5.306	60.546
4	1.082	4.920	65.466	1.082	4.920	65.466

Extraction Method: Principal Components Analysis

APPENDIX I



Scree Plot
Eigenvalue
12
10
8
6
4
2
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
Component Number

APPENDIX J

Unrotated Factor Loadings Matrix

Variables	Factors 1	2	3	4
Shared Vision	.837			
Concrete, attainable objectives	.832			
Mutual respect, understanding, and trust	.821			
Open and frequent communication	.819			
Appropriate pace of development	.819			
Flexibility	.784			
Development of clear roles and policy guidelines	.764			
Evaluation and continuous learning	.760			
Skilled Leadership	.758	-.403		
Appropriate cross-section of members	.748			
Members share a stake in both process and outcomes	.745			
Adaptability	.743			
Engaged stakeholders	.695			
Ability to compromise	.690			
Unique purpose	.659			
Established informal relationships and communication links	.630			
Favorable political and social climate	.570	.495		
Members see collaboration as in their self-interest	.508			.482
Sufficient funds, staff, materials, and time	.461			.458
Collaborative group seen as a legitimate leader in the community	.533	.558		
History of collaboration or cooperation in the community	.460	.556		
Multiple layers of participation	.593		.648	

Extraction Method: Principal Component Analysis
a. 4 factors extracted

APPENDIX K

Loadings for Principal Component Analysis with Varimax Rotation

	Component 1: "Partnership Capacity"	Component 2: "Partnership Responsiveness"	Component 3: "Partnership Legitimacy"	Component 4: "Partnership Momentum"	Communality
Skilled leadership	**.816**				.753
Adaptability to changing conditions	**.780**				.692
Concrete, attainable goals and objectives	**.735**		.405		.803
Evaluation and continuous learning	**.726**		.416		.726
Shared Vision	**.721**				.745
Open and frequent communication	**.687**	.489			.749
Mutual respect, understanding, and trust	**.644**				.682
Established informal relationships and communication links	**.637**				.528
Appropriate pace of development	**.605**	.418			.673
Engaged stakeholders	**.569**	.413			.528
Unique purpose	**.539**				.463
Development of clear roles and policy guidelines	**.498**	.449	.420		.638
Members share a stake in both process and outcome	**.476**				.607
Multiple layers of participation		**.847**			.784
Flexibility	.528	**.582**			.682
Appropriate cross section of members	.440	**.563**			.613
Ability to compromise	.430	**.497**			.517
Collaborative group seen as a legitimate leader in the community			**.807**		.737
History of collaboration or cooperation in the community			**.749**		.627
Favorable political and social climate				**.713**	.713
Members see collaboration as being in their self-interest				**.709**	.606
Sufficient funds, staff, materials, and time				**.524**	.536
Sum of squared loadings	6.37	2.41	1.73	1.29	

% explained variance	49.37%	5.87%	5.31%	4.92%

Note: Factor loadings >.4 are in boldface (N = 126)

VITA

Vanessa Hubbard Rastberger was born in Virginia. She received her Bachelor of Arts in International Relations from Randolph-Macon College in Ashland, Virginia. She received a Master of Public Administration from Virginia Commonwealth University in Richmond, Virginia. Her professional career has focused on workforce and education public policy while working in the private, public and nonprofit sectors at the local, state and national level.