

## ABSTRACT

IZOD, ANNE MARIE. Local Workforce Development Boards – A Study on Determinants of Network Performance. (Under the direction of Dr. Branda Nowell and Dr. G. David Garson).

Given the rise and reliance in networked public services, there has been a growing interest in explaining the factors affecting network performance (Kapucu & Demiroz, 2011; Keast, et al., 2013; Kenis & Provan, 2009; O'Toole Jr., 1997; Provan & Kenis, 2008; Provan & Milward, 2001; Saz-Carranza, et al., 2016; Turrini et al., 2010). This study explored the institutional logics and community features—individually or in combination—that are important determinants for a local workforce board to achieve its federal performance goals. Using data from all 23 local workforce development boards in North Carolina, the quantitative portion of this study used two common federal performance goals to allow comparison among local board networks. The qualitative portion of this study focused on three aspects of network administrative organization performance (NAO) for local workforce development boards. The factors used to assess if these traits affected NAO performance included leadership, mission orientation, and accountability (Agranoff & McGuire, 2001; Innes & Booher, 1999; Mandell & Keast, 2008).

Multiple quantitative analyses were used to understand factors leading to network performance. OLS hierarchical (block) regression and beta weights, as well as regression decision trees, were used to identify the most important variables related to the two performance indicators: (a) how many adults are initially placed in jobs (Entered Employment Rate) and (b) how many who are employed during the fourth quarter after exiting the federal program (Retention Rate). The diverse group of factors that influenced Entered Employment Rate and Retention Rate performance for local workforce development boards revealed that elements of community context or environment, network coordination, and local political collaboration were

key to performance. Further, a pattern of diverse elements was important to understanding network performance. This study contributes to the field of public management in that findings showed that collaboration with local political leaders may be an important factor in local workforce development board performance.

Two indicators of performance were used to qualitatively explore how local workforce development boards managed their network of community partners as the NAOs. One was the number of Certified Career Pathways and the other was state certification of all career centers. To assess local workforce development board NAO performance, this study focused on network behaviors, or “critical functional equivalents to traditional management processes” (Agranoff & McGuire, 2001, p. 297). Qualitative data was collected from the six highest and six lowest performing local workforce development boards to gain insight regarding top performers and notable failures.

This study found that internal and external leaders in the form of thought leaders and champions were important to NAO performance. This study also showed that high performing boards see their mission orientations as system builders or regional backbones for their communities, rather than solely grant managers. Higher performing local workforce development boards utilized strategic planning to stay accountable.

In advancing our knowledge of network performance, this study found that no single factor leads to local workforce development board performance. The local workforce development boards studied had paths to performance including multiple and contingent institutional logics, community context, and network coordination factors. However, some performance factors were more important than others.

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Local Workforce Development Boards – A Study on Determinants of Network Performance

by  
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## **DEDICATION**

I dedicate this dissertation to my daughters—may they follow their dreams and never give up on achieving them.

## **BIOGRAPHY**

Annie Izod serves as the Executive Director of the NCWorks Commission, the state workforce board of North Carolina. The commission oversees the state's workforce development system, recommends policy, and advises the Governor, General Assembly, state and local agencies, and businesses on how to strengthen the state's workforce. All 33 members of the commission are appointed by the Governor and include representatives from the business community, heads of state workforce agencies, educators, and community leaders.

In her role as Executive Director, Annie provides strategic leadership on complex workforce development issues and leads the research efforts, program evaluations, and strategic and policy analyses related to workforce and economic development in North Carolina.

Annie Izod has over 15 years of experience in public policy analysis, program evaluation, and qualitative and quantitative research through her previous employment at the federal government and two research universities. Annie worked for eight years at the US Government Accountability Office in Washington, D.C. as a Senior Policy Analyst working on a variety of issues including workforce development and homeland security.

Annie holds dual bachelor's degrees in English and Political Science and a Master of Public Administration degree from Virginia Tech.

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## CHAPTER 1: INTRODUCTION

This dissertation presents an exploratory study examining institutional logics and community factors that are linked to local workforce development network performance. Using a mixed methods approach, this study employs both quantitative and qualitative analyses to address the following questions:

1. What configurations of a network's coordination strategy and its institutional logic and community contexts are associated with higher network performance? and
2. What aspects of leadership, mission orientation, and accountability lead to better local workforce development board performance in its function as a network administrative organization (NAO)?

### **Introduction**

Many services—including mental health care, general healthcare, and workforce development—are delivered to the public through networks of organizations including government agencies, nonprofits, and for-profits. Public managers are frequently held accountable for performance even when public services are delivered through networked coordinated activities rather than by a single governmental agency (Herranz, 2010). In light of this, public managers involved in these networks need to consider performance implications of their service delivery networks. Given the rise and reliance in networked public services, there has been a growing interest in explaining factors that affect network performance (Kapucu & Demiroz, 2011; Keast et al., 2013; Kenis & Provan, 2009; O'Toole Jr., 1997; Provan & Kenis, 2008; Provan & Milward, 2001; Saz-Carranza et al., 2016; Turrini et al., 2010).

## **The Workforce Development System is Valuable for Studying Network Performance**

The field of workforce development represents one prominent stage upon which the factors affecting network performance are played out in the United States (Giloith, 2004; Herranz, 2008, 2010). According to the United States Department of Labor Employment and Training Administration, the public workforce system is a network of federal, state, and local offices that function to support economic expansion and develop the talent of our nation's workforce through working with local areas. Although the public workforce system is federally funded, most services for businesses are available at the state and local levels.

As part of the North Carolina workforce development system, 23 local workforce development boards serve all 100 counties in the state. Local workforce development boards are charged with planning, overseeing, and coordinating local workforce initiatives and the organizations that deliver workforce services, including the local workforce office(s). Members are appointed by chief local elected officials, and local workforce development boards are comprised of individuals representing business and industry, economic development agencies, community-based organizations, educational agencies, vocational rehabilitation agencies, organized labor, public assistance agencies, and the public employment service. Federal legislation mandates that 51% of board members must represent local area businesses and local interests.

## **Common Local Workforce Development Board Performance Measures Allows for Comparison of Networks**

While there is agreement that network performance is important, the literature varies regarding how effectiveness among networks can be assessed (Provan & Kenis, 2008). For example, Milward et al., (2009) used client satisfaction data to compare the network performance of boards, and Herranz (2010) measured effectiveness for workforce development networks

based on the ratio of job placements and job postings. Cristofoli et al., (2014) measured network effectiveness in terms of the network's ability to achieve its expected goals, an assessment based on Provan and Milward's (2001) approach in their study of mental health networks. In addition to varying effectiveness measures in the literature, some studies reveal that network performance measures do not include the conditions or success factors that may affect performance (Kenis & Provan, 2009). As Mandell and Keast (2008) point out, some network effectiveness studies focus on the effectiveness of a single organization. This is problematic because though networks are composed of individual organizations, the performance of the network cannot be determined by the effectiveness of any one organization in the network.

Because the literature varies in how to measure network effectiveness, it is important to find networks with common performance measures to allow for relevant comparisons. This need for comparative data makes the workforce development system a unique and exciting area for studying network performance. The Workforce Innovation and Opportunity Act of 2014 establishes common performance measures among all local workforce development boards across four core workforce development programs. These common performance measures allow researchers to compare performance results across local workforce development boards in each state.

In the workforce development system, the local workforce development board governs the local workforce network as a network administrative organization (NAO). An NAO is a separate administrative entity set up specifically to manage and coordinate the network and its activities (Provan & Kenis, 2009). Local workforce development boards are distinct from general boards of directors in nonprofit organizations. While the workforce development system may be governed by a nonprofit overseen by the local workforce development board, this is not always

or even most commonly the arrangement. Each local workforce development board is embedded differently in its local area; some are housed in a county office, others in a city or a regional council of government. It is this setup that determines its administrative arrangement.

### **Local Workforce Development Boards Reveal Diverse Institutional Logics and Community Contexts**

We can learn about network performance from how local workforce development boards coordinate with administrative entities and network organizations in their unique internal and external environments. Mandell and Keast (2008) assert that network evaluation should focus on what happens inside the network as well as the social, economic, and political contexts encircling the network. Multiple scholars have considered the connection between organizations caring about the community context and success (Hindle, 2010; Johns, 2006). Johns (2001) indicates that organizations may adopt business practices that could seem unorthodox to an outsider but are perfect fits for the community.

It is also important to consider where a local workforce development board is embedded in its local area and its relationship with its administrative entity. These factors may affect the way the board coordinates with the organizations in its network and affect network performance. Many local areas in North Carolina are rural, while others can be characterized as urban. This study examines how a local workforce development board operates within its geographic location as a factor that may be linked to performance.

This study applies Herranz's (2008) framework for how network coordination influences performance. Herranz (2008) categorizes coordination efforts into three sectoral-based categories, which he terms *bureaucratic*, *entrepreneurial*, and *community network coordination* strategies. The bureaucratic network coordination strategy involves broad business connections and high degrees of formalized procedures involving written contracts, standardized information



collection and reporting, and regularized services (Herranz, 2008). Entrepreneurial coordination is typified by strong relationships with business firms, and community network coordinating strategies involve interpersonal and interorganizational relationships with firms spanning over three years. This study uses these coordination strategies as a way to characterize the institutional nature of how a local workforce development board coordinates in its local environment.

A local workforce development board is also embedded as part of its local environment or community context. The community context can include the local area's political support, and this factor has been shown to affect the performance of a workforce development system (Giloith, 2004). The need to examine a network's environment when examining networks is echoed in Turrini et al.'s (2010). These scholars argue that missing from the literature is what McGuire (2002) has called the *match* between environment and behavior in the network. McGuire (2002) acknowledges that public network performance research reveals likely contingencies among networks and their environments which must be examined in order to build a strong theory about network performance and its determinants. However, despite this acknowledgement, there is no systematic research about the relationship between environmental factors and the types of network management behavior in the network (McGuire, 2002).

### **Understanding the Determinants of Network Performance**

This study's mixed methods approach is advantageous for understanding network performance because it can apply both configurational and interpretive qualitative analyses to understand specific factors that lead to NAO performance. These factors include leadership traits, mission orientation, and accountability factors. This exploratory study seeks to understand the institutional and community factors that are linked to local workforce development network

performance. The specific question guiding the qualitative phase of this research is what aspects of leadership, mission orientation, and accountability lead to better local workforce development board performance in its function as a Network Administrative Organization (NAO).

### **Potential Contributions of This Research**

This dissertation seeks to advance the development of theory in public network performance in three major ways.

#### ***Comparable Network Performance***

The development of a theory of network performance is still in its nascent stages, and a variety of explanations for network performance have been offered and studied (See Kenis & Provan, 2009; Raab et al., 2013; Turrini et al., 2010). Despite this and the increase in attention to multi-organizational public networks, there are relatively few empirical studies on the performance of public networks (see also Provan et al., 2007; Raab et al., 2013; Turrini et al., 2010). According to Raab et al. (2013), empirical studies comparing multiple networks are challenging to conduct. Indeed, most empirical studies of networks have been conducted outside the United States, do not exceed four to six networks, and do not include comparable indicators. This study uses the performance of 23 local workforce development boards on meeting the targets for core adult workforce development programs as indicators of the local workforce system network performance.

#### ***Explore Community Context Factors and Network Performance***

Herranz's 2010 study found that network coordination—whether bureaucratic, entrepreneurial, or community—makes a difference in network performance. This study digs deeper into these coordination strategies to understand how a local workforce development board operates within its community context. Because local workforce development boards are located

in different geographic and civic environments and may be structured and funded differently, there are contrasting community context factors at play for each one as it coordinates its networked organizations. This study examines how where a local workforce development board operates and its internal and external environment is linked to better or worse network performance.

### ***Configurational Approach Using Exploratory Factor Analysis, OLS Regression, and Regression Trees***

The configurational approach in the analysis of public sector networks has received increased attention in recent years (Cristofoli et al., 2012; Lemaire & Provan, 2010; Raab et al., 2013; Raab et al., 2013). This dissertation builds on the work done by Raab et al. (2013), who used a configurational approach to study how contingent factors of network structure, governance, and context are linked to network performance.

This dissertation examines how the factors of a local workforce development board's network coordination strategies, institutional context, and community contexts are linked to performance by building on knowledge regarding network performance and the match between a network's environment and its behavior.

### **Research Questions**

There are two research questions for this exploratory study. The first question asks: What configurations of a network's coordination strategy and its institutional logic and community contexts are associated with higher network performance? The second question, guiding the second phase of this study is: What aspects of leadership, mission orientation, and accountability lead to better workforce development board performance in its function as a network administrative organization (NAO)?

## Theories Guiding these Research Questions

Configurational theory posits that performance is a function of the alignment of an organization with both itself and with the task demands of its operating environment (Delery & Doty, 1996; Miles et. al., 1978). Understanding the combination of factors associated with network effectiveness helps to build theory in the area of network performance (Delery & Doty, 1996).

Institutional logic theory addresses three different types of network coordination strategies and their impact on performance. Meyer and Rowan (1977) acknowledge that organizations operate based on the norms of their institutions. Further, these scholars suggest that as organizations adapt themselves to institutionalized settings, they become defined socially and receive commitment of their practices from internal and external participants—regardless of efficacy—and in so doing become legitimized within the context of institutionalized language. Institutional logics shape rational, mindful behavior, and individual actors have some hand in shaping and changing those logics (Thornton, 2004). Institutional logics provides a link between institutions and action, and the contradictions inherent in the differentiated set of institutional logics provide individuals, groups, and organizations with cultural resources for transforming individual identities, organizations, and society (Thornton & Ocasio, 2008). Thus, local workforce development boards may adopt network coordination strategies in concert with their local institutional environment.

Herranz does not contend that a configurational approach is necessary. He argues that workforce networks coordinate in sectoral-based ways and can be sorted into either entrepreneurial, community, or bureaucratic types of coordinating. These ways of coordinating affect the way local workforce development boards manage their networks and ultimately their

performance. In contrast, Raab et al. (2013) believe a contingent approach is needed to understand network performance and that there are combinations of structure, governance, and age of network that, when combined, can positively affect performance.

The current study adds Herranz's work into the combined factors of network performance. That is, it allows the institutional logics element of where a local workforce development board is housed to also be a factor for performance. Thus, this study examines how the combined factors of the institutional logics of the board's location, political support, civic capacity, geographic area, and stability all affect performance.

### **Outcomes of Interest**

The outcomes of interest for this study are two of the Workforce Innovation and Opportunity Act (WIOA) common performance measures for local workforce development boards. This study focuses on the adult measures of the entered employment rate and the employment retention rate for adult and dislocated workers. These outcomes consider the efficacy of a local workforce development board in terms of the NAO's effectiveness in matching jobless adults to jobs and the extent to which those adults stay employed.

### **Data Sources**

Data for research question one was derived from written survey data collected from executive directors of the 23 local workforce development boards in North Carolina. The local areas vary in geographic location from rural to urban settings, and each board is structured to operate differently. Some boards are located in county government, some are part of city management, and others are structured to operate as non-profits. Answers from participants may reveal how they coordinate their network activities, where they are embedded in their local areas, and if they have political support for their local workforce development initiatives. Data for the

second research question, focused on 12 of the 23 local workforce development boards, was qualitative in nature and collected via semi-structured telephone interviews.

### **Preview of Chapter Two**

Chapter two reviews the literature relevant to studying the contingent factors that affect network performance, examines the configurational approach to studying network performance, and considers the institutional logics and community contextual factors associated with public network performance. Chapter two also includes relevant literature regarding key determinants of NAO performance.

## **CHAPTER 2: LITERATURE REVIEW**

This chapter presents background on workforce development and a review of the relevant public network performance literature. It focuses on network coordination strategies, institutional logics, and community contextual factors linked to network performance. In addition, this chapter reviews the literature on the factors related to Network Administration Organization (NAO) performance.

### **Local Workforce Development Boards**

Local workforce development boards are part of the nation's public workforce system, a network of federal, state, and local offices supporting economic development and encouraging the growth of America's workforce. State and local workforce development boards serve as connectors between the U.S. Department of Labor and more than 2,500 local American Job Centers (also known as One Stops or Career Centers) that deliver services to workers and employers. The local workforce development board's role is to develop regional strategic plans and set funding priorities for their local area. This study focuses on local workforce development boards and their performance in meeting federal workforce program goals for their local area networks.

Local workforce development boards seek to facilitate partnerships between local businesses with similar training needs. They also rely on labor market information to develop sector strategies focusing resources on a particular high growth industry for their area, often involving skill training for local businesses. More than 50% of each local workforce development board's members must come from the business community. In addition, local workforce development boards are required to have representation from community colleges and other training providers, as well as elected officials and workforce program leaders. The boards

are composed of community leaders appointed by local elected officials, and they are charged with planning and oversight responsibilities for workforce programs and services in their area.

Local workforce development boards oversee the Workforce Innovation and Opportunity Act (WIOA) funded programs that support adults, dislocated workers, and youth under the direction of the WIOA law published in 2014. The core programs are: (a) Adult, Dislocated Worker and Youth formula programs administered by the Department of Labor (DOL); (b) Adult Education and Literacy programs administered by the Department of Education; (c) Wagner-Peyser Employment Service program administered by DOL; and (d) and the programs under Title IV of the Rehabilitation Act that provide services to individuals with disabilities administered by the Department of Education. Other programs administered by DOL authorized under Title I of WIOA include Job Corps, YouthBuild, Indian and Native American programs, Migrant and Seasonal Farmworker programs, and evaluation and multistate projects.

WIOA seeks to match the performance indicators for the core programs with the economic conditions and participant characteristics of participating communities.<sup>1</sup> Local workforce development boards report their performance on common measures annually.

### **Local Workforce Development Boards are the Network Administrative Organizations that Manage Local Workforce Development Networks**

This study views networks as mechanisms of coordination often referred to as network governance (Provan & Kenis, 2008). The governance perspective is valuable in that the network itself is considered to be the unit of analysis (Provan & Kenis, 2008). Provan and Kenis (2008) suggest three modes of network governance. These are shared governance (where multiple organizations work collectively as a network with no distinct governance entity), lead

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<sup>1</sup> Public Law 113-128 113<sup>th</sup> Congress



organization governance (where an organization serves a dual role as member of the network and coordinator of the network), and the NAO governance mode (where an organization's sole role is to govern the network). Some networks also exhibit a hybrid form of these modes (Provan & Kenis, 2009).

In the workforce development system, the local workforce development board most closely resembles a NAO as it is a separate administrative entity set up specifically to govern the network and its activities. Network members still interact with one another and the NAO model is centralized. Local workforce development boards do not act like another member organization providing services but as the network facilitator. The board is established through mandate for the exclusive purpose of network governance. As Provan and Kenis (2008) suggest, NAOs, like local workforce development boards, can be viewed as mechanisms for enhancing network legitimacy, dealing with unique and complex network-level problems and issues, and reducing the complexity of shared governance.

### **Workforce Development Networks are Goal-Directed Networks**

Local workforce development boards manage networks best characterized as goal-directed networks. Goal-directed networks are defined as groups of three or more legally autonomous organizations that work together to achieve not only their own goals but also a collective goal (Provan & Kenis, 2008). Such networks may be self-initiated by network members themselves. They also may be mandated or contracted, as is often the case in the public sector, like workforce development systems (Provan & Kenis, 2008). For workforce development networks are multi-sector networks that seek to implement federal and state workforce development policy; they are comprised of government firms and private firms involved in job training, labor matching, and employment supports (Herranz, 2008). Such

networks involve government, nonprofit, and for-profit organizations involved with the public policy, non-profit service delivery, and labor market exchange of the local workforce development system (Herranz, 2008).

Workforce development networks may be further classified as goal-directed networks because they are whole networks engaged in multiparty inter-organizational relationships around a common goal (Provan & Lammaire, 2012). Provan et al. (2007) characterize these types of goal-directed networks as often formally established by government for the purposes of achieving a specific goal rather than occurring serendipitously. Relationships in such networks are primarily non-hierarchical and participants can often make decisions on their own without government input. Mental health networks and emergency management networks are other examples of these service delivery networks.

While local workforce development boards are similarly tasked with overseeing and facilitating their workforce development activities, they are not all structured the same way. Some local workforce development boards are embedded in different local entities, sometimes with competing interests. In addition, they may have variable tax statuses or rely on different fiduciaries to carry out their work. In North Carolina, there are a few local workforce development boards that are 501(c)(3) non-profit organizations, while others operate within a regional council of governments. Additionally, local workforce development boards may be housed in a city or county workforce-planning department.

Each local workforce development board also manages a workforce network within its own political environment—some require regional support while others seek support from city or county political officials. Differing policy goals among workforce board members and political

officials may create challenges in achieving performance goals (Giloith, 2004). In addition, local workforce networks can be rural or urban, and this affects the types of jobs available.

### **Current State of the Literature on Network Performance Reveals Varying Ways to Assess Network Performance**

The study of network performance has grown substantially since Provan and Milward's (1995) foundational work on the performance of four mental healthcare networks. Their work, as Raab et al. (2013) also acknowledge, helped to build a preliminary theory of network performance. Studies examining network performance reveal important factors that contribute to network performance, including structural, functional, and contextual characteristics, modes of governance, network age and stability, and coordination (for review, see Turrini et al., 2010).

Raab et al. (2013) and Cristofoli et al. (2013) used Turrini et al.'s (2010) framework for measuring network effectiveness which considers structural, functional, and contextual characteristics. Raab et al. (2015, p. 484) apply both the Provan and Kenis (2009) definition of effectiveness as the "attainment of positive network-level outcomes that could not normally be achieved by individual organizational participants acting independently" and the Provan and Milward (2001, p. 423) contention that "organization-and network-level effectiveness criteria can be mostly satisfied by focusing on community-level goals." For Raab et al. (2013), network effectiveness is measured as the reduction of recidivism among clients of the Safety Houses (5.8% in a 2-year period) and the reduction of criminality among Safety House clients based on the themes of youth, habitual offenders, domestic violence, and probation.

In his study examining network coordination approaches, Herranz (2010) works toward developing a theory on network performance. Herranz (2010) integrates Provan and Milward's (2001) three-part framework of community-level, network-level, and organizational-level performance with his own (Herranz, 2008) three-part framework of network coordination

strategies. According to Herranz (2008), organizational behavior differences among government, nonprofit, and for-profit organizations are also seen in network behavior.

To measure network performance, Milward et al. (2009) used state-collected client satisfaction data as a measure of effectiveness. Cristofoli et al. (2014), following Provan and Milward (2001) measured network effectiveness in the home health care Spitex network as the network's ability to achieve its expected goals. To measure network goal attainment, the authors used the ratio between the patients served in the year 2010 and the total population the home health care network could serve in 2010.

### **Network Performance Study Lacks Exploration of Network and its Internal and External Environment**

As Turrini et al. (2010) acknowledge, the importance of the external environment in shaping organizations and their performance is well established in the organizational literature (Burns & Stalker, 1961; Katz & Kahn, 1978; Pfeffer & Salancik, 1978). The behavior of a network in coordinating interorganizational relationships can affect performance, and relationships among coalition members may also provide insight into network performance (Foster-Fishman et al., 2001; Herranz, 2008; Zakocs & Edwards, 2006). This is also seen in arguments of Mandell and Keast (2008) who assert that networks are primarily concerned with developing relationships and processes to facilitate interactions.

Despite widespread agreement that alignment with one's environment is a key consideration in understanding performance in that environment, we know very little about how the relationship is between a network and its environment relates to network performance. This dissertation addresses this gap by investigating the importance of institutional logics and community context as they relate to network performance.

Doty and Glick (1994) assert that employment systems are ideal types that are equally effective under all conditions. In the case of workforce development networks, a board that reveals a fit between its logistics and the fiduciary agent from where it is embedded will be expected to perform better than a network led by a board that does not reveal such a fit (Berg-Schlusser et al., 2009).

Drazin and Van de Ven (1985) also consider fit as important for performance. In their structural contingency theory, they examine three approaches to fit: selection, interaction, and systems. The first two approaches, selection and interaction, focus on how individual factors affect single structural characteristics and how pairs of context and structure factors interact to explain performance (Drazin & Van de Ven, 1985). In contrast, the systems approach to contingency theory acknowledges that a holistic approach to fit that considers the many contingencies, structural alternatives, and performance criteria is necessary to understand organization design (Drazin & Van de Ven 1985). Unlike the selection and interaction approaches to fit, the systems approach consists of several alternative methods characterizing patterns of interdependencies present in organizations (Drazin & Van de Ven, 1985). Like systems, networks consist of many interdependencies, including their internal and external environments.

### **Institutional Logic Factors Shape Workforce Development Network Coordination and Performance**

This study aims to bring together multiple streams of literature to explain network performance. As Berry et al. (2004) assert, there is a need for more interdisciplinary dialogue to build theory regarding networks. Institutional logic theory sheds light on how local workforce development boards adopt organizational norms based on where they are embedded in their local area. More important, the theory provides insight into how alignment with one's institutional

environment can have significant advantages that may positively influence performance (DiMaggio & Powell, 1983).

Workforce development policies unfold in arenas where the rule-setting, hierarchical governance strategies of the public sector intersect with the more networked strategies found in civil society and the price competition of the private sector. These institutional settings can help or hinder reaching agreements, coordinating partialities, and providing choices (Hecló, 1994). Institutional theory and institutional logics can provide understanding regarding the network coordinating strategies identified by Herranz (2008, 2010).

To understand institutional logics, one can view them as socially constructed and historical pattern of material practices, assumptions, values, beliefs, and rules (Thornton & Ocasio, 1999). Institutional logics provide guiding principles for matching appropriate types of practices to specific problems and account for why organizations should change to incorporate new practices (Lawrence & Suddaby, 2006). Friedland and Alford (1991) offer that bureaucratic rationality and community and reciprocal obligations are examples of institutional logics. A dominant institutional logic shapes an organization either by reinforcing the spread of a practice conforming to the increasingly dominant institutional logic or encouraging the deletion of an old and increasingly illegitimate logic (Thornton, 2002). In addition, opposing logics can create tension and lead to fragmentation of institutional fields, and they can comprise multiple practices (Marquis & Lounsbury, 2007). Institutional logic is one way to describe the coordinating strategies embraced by a network. This dissertation examines how the institutional logic of a local workforce development board matches the institutional logic of its broader institutional and community context.

As Lammers and Barbour (2006) suggest, the concept of institution can have multiple meanings. It is often used to describe a church, school, college, hospital, or corporation. Lammers and Barbour (2006) propose an institutional theory of organizational communication that draws on insights from institutional sociology and views institutions as constellations of established practices guided by enduring, formalized, rational beliefs that transcend certain organizations and situations. The concept of institution has also been used to refer to governing bodies such as the economy or the state or a religion. The ways that the word *institution* has been used reveals that certain persons, organizations, beliefs, ways of thinking, behaviors, or rules have an enduring or fixed character. This is consistent with Meyer and Rowan's (1977) definition of institutionalization as "the processes by which social processes, obligations, or actualities come to take on a rule-like status in social thought and action" (p. 341).

In addition, Meyer, et al. (1987) show how institutions shape and control life in organizations. These scholars contrasted institutional sectors or field in which beliefs and values dominated activity (e.g., education) with technical sectors (e.g., manufacturing) where market forces and technique dominated. DiMaggio and Powell (1983) assert that as organizational leaders, managers, and employees adopt and follow institutional rules, their organizations become more similar to each other.

A key principle within the institutional logic approach is that "the interests, identities, values, and assumptions of individuals and organizations are embedded in institutional logics" (Thornton & Ocasio, 2008, p. 103). The idea that an agency is embedded in institutions is an important move that connects agency and structure. According to Thornton and Ocasio (2008), an embedded agency works as a concept because the individual, organizational, and institutional levels of society are nested and interconnected. The institutional logics approach provides an

important remedy to the theoretical drift away from institutional effects by highlighting how the cultural dimensions of institutions both enable and constrain social action (Thornton & Ocasio, 2008).

Ring and Van de Ven (1994) have considered the ways in which networked relationships are affected by institutional norms. Specifically, they argue that:

[The] “institutionalization of a relationship is evident in three basic interactions that evolve over time between formal and informal processes of negotiation, commitment, and execution: (a) personal relationships increasingly supplement formal role relationships, (b) psychological contracts increasingly substitute for formal legal contracts, and (c) as the temporal duration of relationships extend beyond the tenure of initial contracting agents, formal agreements (e.g., rules, policy, contracts) increasingly mirror informal understandings and commitments.” (Ring & Van de Ven, 1994, p. 103)

The literature reveals that an institutional logic approach is a useful lens for characterizing organizations and how they interact with their environments to accomplish their goals. This dissertation answers the call for more crossover research between network and institutional logic scholars as network methodologies offer a well-established set of methods that can be used for direct measurement of the meaning of cultural categories (Breiger & Mohr, 2004).

### **Understanding Network Coordination Strategies**

Network coordination strategies encompass the broad range of network management types, and how a network navigates within its environment. Network coordination considers ways in which networked organizations work with one another as a cohesive group to deliver



services. In order to achieve performance targets, some local workforce development networks may adopt or negate some institutional logics from their environment.

As mentioned previously, according to Herranz (2008), network coordination strategies can be divided into three sector-based types—*bureaucratic, entrepreneurial, and community*. Herranz (2010) found that the type of network coordination strategy (bureaucratic, entrepreneurial, or community) makes a difference in network behavior. Cristofoli et al. (2014) demonstrated that network success is affected by size and geographical concentration, and that management strategy matters. Specifically, successful networks with formalized rules and the presence of network administrators to oversee those rules led to success.

Networks characterized by bureaucratic coordinating processes employ tactics such as high degrees of formalized procedures involving written contracts, standardized information collection and reporting, and regularized services (Herranz, 2010). The bureaucratic network coordination approach was associated with generally low performance (Herranz, 2010). Interestingly, the bureaucratic approach was also associated with high-cost efficiency and higher number of job placements than other coordination approaches.

Networks using entrepreneurial coordinating processes are described by Herranz (2008) as having high degrees of *quid pro quo* contracts and agreements, strategic data analysis, and contingent fee-based services. Herranz (2008) found that that entrepreneurial network coordination approach was associated with moderate to high performance.

Networks with community coordinating processes are characterized by Herranz (2008) as having tactics such as high degrees of agreements and contracts based on social relationships, sense-making information, and personalized services. Furthermore, they tend to have more personalized service and community coordination characteristics emphasizing the process of

building relationships together rather than on network outcomes. Common values and interests, collective problem solving and decision making, negotiation and bargaining, shared resources, and reciprocal trust are key elements of the community network coordination strategy.

The three network coordination strategies, as proposed by Herranz (2008, 2010) are useful, but they beg the question of whether some coordinating strategy is generally superior or whether the effectiveness of a given coordinating strategy is dependent upon the broader environment in which it is being implemented. This question highlights the fact that networks may face different opportunities and constraints as a result of being nested in different environments. This research proposes that the effectiveness of each network's coordination strategy is, in part, a function of its appropriateness or match with the institutional logic of its operating environment. One dependency relationship that may have particular consequences for an NAO is the fit between the institutional logic of the workforce development board and its fiduciary agent, or where the local board operates in its local area. The general propositions explored here is whether the fit between where a local board operates and its network coordination strategy facilitates network processes and activities that lead to better performance.

- *Proposition 1: Local workforce development boards that operate as a 501(c)(3) nonprofit and employ entrepreneurial network coordination strategies will be linked to better performance.*
- *Proposition 2: Where a local workforce development board operates in their local area may be linked to better performance.*

### **Community Context Factors Shape Workforce Development Network Coordination and Performance**

In addition to investigating the importance of the match between where a local workforce development board operates in its community and its network performance, this study argues that

it is also reasonable to suspect that a local workforce development board's alignment with its community context may also relate to performance. Mintzberg (1980) asserts that organizations have different configurations that are often adapted to attributes of the external environment and characteristics of organization itself. Thus, an organization's configuration is not static. This study contends that an effective structure requires a close fit/consistency between the local workforce development board's structure and the contingency factors of its community context. Furthermore, Salancik and Pfeffer (1978) offer that organizations are inescapably bound up with the conditions of their environment. They argue that organizations (in this case networks) survive to the extent that they are effective. The key to strong organizational survival is the ability to acquire and maintain resources and thus manage the external environment.

Walker and Lorsch (1968) posit that structure requires understanding both the nature of external factors and the organization's economic goals. Similarly, Pfeffer and Salancik (2003) acknowledge that to understand an organization's behavior, one must understand the context. Furthermore, contingency theory posits that organizations are not self-contained but are embedded in their environment and dependent on that environment to survive. For local workforce development boards, fit within the community context—includes the geographic and political setting—is critical to understanding performance. Pfeffer and Salancik (2003) posit that what happens in an organization is not a function of structure, leadership, and procedures. Rather, organizational functioning is a consequence of environment, and particular contingencies and constructs derived from that environment. All of these theories provide support for the notion that a local workforce development board's alignment with its community context may also relate to performance. In this dissertation, key aspects of a network's community context are investigated, including geographic setting and local political support.

## **Geographic Setting**

Rural workforce development areas face unique challenges. There are several barriers, including the tendency to approach workforce development in a regional manner. Regional workforce development networks must bring in labor agencies that are unfamiliar with working with local officials, and labor agencies are not inclined to support employer-oriented strategies, particularly those originating at the local level (Giloith, 2004).

Informal coordination lies at the heart of workforce development and the effective implementation of One-Stop delivery systems. Informal coordination and relationship building assume even greater importance in rural areas where providers and resources are in shorter supply and no single organization can afford to meet all the needs of each customer. According to a 2005 report from the Department of Labor, rural local workforce development boards tend to rely on personal and informal partnerships within their networks to succeed. As mentioned earlier, Herranz (2008) argues that networks typified by community coordinating processes tend to base agreements and contracts based on social relationships, sense-making information, and personalized services.

## **Political Support**

Koliba (2013) posits that network performance can be studied through a combination of network logic (including structure and form) and public performance and accountability (i.e., a public administration and policy context). Local workforce development boards that share the same policy goals as their local government will fare better in achieving performance targets. Networks are usually composed of mixed administrative authorities in which command and control arrangements persist for some administrative subsystems or groups (Koliba, 2013).

As Giloth (2004) points out, it is important to create a durable coalition around performance goals in a workforce development network. A strong mayor system can mean that the mayor and city council can provide the *ground support* for workforce development initiatives (Giloth, 2004). Regional political jurisdictions often have their own sets of interests and their own positions on what constitutes the best course of action for workforce development policy. If these interests do not match up with workforce needs, it can cause uncertainty for local workforce development networks and create significant constraints on achieving workforce development goals for their local areas. The general proposition explored here is that a local workforce development board needs local political support for workforce programs and policy to achieve performance goals.

*Proposition 3: Local workforce development boards that have shared workforce development policy goals with local government are linked to better network performance.*

### **Leadership and Network Performance**

According to Walker et al. (2012), success for boards is predicated on a strong leadership team, an active board presence, and dedicated program staff. A strong leadership team and committed staff operate in conjunction with one another. That is, each fulfills its role in the organization's internal division of labor but also benefits from interactions across the organizational hierarchy. Active boards and supportive leadership are strategically important for the organization's effectiveness, especially in terms of the quality and number of employer relationships and community partnerships the organization is able to preserve. Walker et. al., (2012) found many organizations maintain a large employer presence on their board, along with a mix of industry, policy, and community representatives. Further, these organizations credited leadership with the important role of guiding organizational philosophy and direction.

Local workforce development boards need strategic leadership to develop public and private partnerships and foster an environment that helps job seekers find employment and businesses find talent to fill job vacancies (Good & Strong, 2015). Businesses need local workforce development boards to find the skilled workers they need to hire (Copus & Leach, 2014; Eberts, 2013; Hewat & Hollenbeck, 2015). Nowell and Harrison (2011) determined that undeclared leaders in the form of thought leaders and champions in collaborative partnerships help to drive work forward in unique and important ways. These leaders are essential for supporting the board members and for advancing workforce initiatives in the community.

### **Contingent Factors for Performance**

The preceding review on the current literature regarding network effectiveness, institutional logics, and community context factors affecting network coordination reveals that these factors may link together to influence performance. This study uses configuration theory as a macro-theoretical framework to examine the network performance. Raab et al. (2013) provide an example of adopting this perspective to explore the ways in which network structure, context, and governance mode are related to network effectiveness. Building on Raab et al.'s (2013) and Herranz's (2008) studies of network performance, this dissertation focuses on networks with the same type of governance (i.e., a goal-directed NAO in the form of a local workforce development board) with common performance indicators related to employment outcomes. As Herranz (2008) points out, local workforce development boards differ in the coordinating strategy that they embrace. However, no research to date has examined how the alignment of the coordination strategy of the local workforce development board with its location and community context relates to performance.

The configurational approach to performance has been receiving more attention lately (Cristofoli et al., 2012; Lemaire & Provan 2010; Raab et al., 2013). The notion of *configuration* was central to organization theory during the 1970s and 1980s (Child, 1972; Miles et al., 1978); Mintzberg, 1980). There were some advances in the 1990s and early 2000s but the development of this approach has not gained momentum until recently. Configurational theory states that there may be multiple combinations of factors leading to performance. Understanding these factors can help to build theory in network performance through a configurational theory approach.

Configurational elements of a network's performance may be identified as necessary and sufficient conditions that collectively lead to a certain outcome (Ragin, 1997). Configurational methods are well-suited for research on organizations, and in this case NAOs, because the study of organizations (and networks) is very much focused on the question of how the parts of a case fit together (Fiss et al., 2013).

### **Qualitative Study: Local Workforce Development Boards and Network Administrative Organization Performance**

A local workforce development board's ability to foster relationships among actors in the workforce system is critical for its performance. As Bates and Redmann (2002) indicate, the workforce development system must be responsive to the economic and social goals of its community. Furthermore, community engagement is essential for program success, as community needs shape the services offered by programs, determine where programs may be located, and serve as a source of referrals (Bates & Redmann, 2002). Programs also strive to promote economic development for the individuals and businesses they serve, as well as the overall community. Considering community factors when developing or expanding a training program is essential to its success. This means that local workforce development boards need mechanisms to connect education and training goals and activities to economic development

plans and the larger social goals of community. A local workforce development board also needs a community with processes to drive consensus building (Bates & Redmann, 2002).

Bryson et al. (2006) argue that cross-sector collaborations are more likely to succeed when one or more linking mechanisms (i.e., powerful sponsors, general agreement on the problem, or existing networks) are in place at the time of initial formation. A civic intermediary, such as a local workforce development board chair can act as a link to connect a workforce development organization such as a community college with a local employer to provide training that fits with that organization.

Structural contingency theory is useful in understanding the conditions leading to the formation of interorganizational relationships and the reasons alliances are made, but the theory does not explain the process—that is, how networks emerge, grow, and dissolve or shrink over time (Ring & Van de Ven, 1994). Studying the success of interorganizational networks therefore requires the study of what drives organizations to work together, not just the factors leading to network growth and network contraction.

The specific question guiding this phase of the research is what aspects of leadership, mission orientation, and accountability lead to better workforce development board performance in its function as an NAO. This study focuses on these three elements of NAO performance linked to NAO network management (Agranoff & McGuire, 2001; Innes & Booher, 1999; Mandell & Keast, 2008). These are the ability to activate or utilize the knowledge of stakeholders in the network (Agranoff & McGuire 2001), framing and facilitating agreement on leadership and administrative roles, and mobilizing behavior to get commitment and build support from both key players inside and outside the collaborative effort (Agranoff & McGuire, 2001; Innes & Booher, 1999).



### **Preview of Chapter Three**

Chapter three will discuss the propositions of this dissertation and the proposed research design, study context, and methodology.

## CHAPTER 3: METHODS

### Introduction

The nation's public workforce system is a network of federal, state, and local offices that work with their local communities to train individuals and match employers with a skilled workforce. Throughout the country, local workforce development boards serve as conveners who bring together businesses, labor, and economic development agencies.

Although they share a broad mission, each local workforce development board network in North Carolina has unique characteristics. For example, some local workforce development boards are co-located with rural county government offices, while others operate in city offices in predominantly urban areas, and yet others operate as 501(c)(3) nonprofit organizations.

As stated in Chapter 1, this dissertation is an exploratory study examining the institutional logic and community factors linked to local workforce development network performance. The purpose of this study is to generate theories regarding the determinants of network performance. There is currently no universally accepted way to evaluate networks because they are difficult to compare. Using a mixed methods approach, this study employs both quantitative and interpretive qualitative analyses to address two broad research questions:

RQ 1: What configurations of a network's coordination strategy and its institutional logic and community contexts are associated with higher network performance?

RQ 2: What aspects of leadership, mission orientation, and accountability lead to better workforce development board performance in its function as a Network Administrative Organization (NAO)?

To explore these research questions, survey data was collected from the executive directors of North Carolina's 23 local workforce development boards. Research question one

was addressed through responses to this survey, while question two was analyzed primarily based on semi-structured telephone interviews.

This chapter explains the research design and the propositions related to the relationships between the independent and dependent variables. A discussion of the statistical procedures used to analyze the data for each research question follows.

### **Method for Local Workforce Development Board Written Survey**

For research question 1, regarding the links between configurations of a network's coordination strategy, institutional logic, and community contexts and network performance, survey data was collected from 23 local workforce development board executive directors in North Carolina. The survey focused on the ways the executive directors characterize their network coordination strategy.

For the second research question, semi-structured interviews were conducted with 12 local workforce development board executive directors in North Carolina. Six of these executive directors were top performers, and six were from the lowest performing boards. Assessments of performance was based on network manager performance indicators collected by the state of North Carolina. Research question 2 was also addressed through document reviews of annual reports and mission statements. Though this study focuses on the state of North Carolina, findings may generalize beyond North Carolina because the 23 North Carolina local workforce development boards—like those found throughout the United States—encompass diverse urban and rural environments, different administrative arrangements, and distinct local community contexts. The primary data sources are discussed in greater detail below.

### **Written Survey**

Data collection efforts for this study involved web surveys with all of North Carolina's 23 local workforce development board executive directors. The executive directors manage the day-to-day operations of the board and work with the workforce development staff to serve jobseekers and businesses. The executive director offers a global view of the local workforce development board and can explain changes in local workforce board composition over time.

Each web survey was administered through the Qualtrics ([www.qualtrics.com](http://www.qualtrics.com)) web-based platform. An additional source of data included the Workforce Innovation and Opportunity Act (WIOA) annual performance reports for program years 2013, 2014, and 2015, published by the North Carolina Department of Commerce.

### **Key Informant Interviews and Survey Piloting**

The development of the survey instrument was based on a review of relevant literature as well as key informant interviews with subject matter experts in the field of workforce development. Three key informants were interviewed. These experts also reviewed the study's survey instrument and provided feedback as it was developed.

The survey was piloted using workforce development professionals in North Carolina with extensive experience in working with local workforce development boards across the state. Feedback from the pilot survey was used to further refine the survey instrument.

### **Quantitative Analyses—Exploratory Factor Analysis, OLS Regression, and Regression Trees**

To answer the first research question regarding the effect of configurations of a network's coordination strategy, institutional logic, and community contexts on network performance, this dissertation explored the institutional logic and community features—individually or in combination—that are needed for a local workforce development board to achieve its federal

performance goals. The goal of the analysis was to identify different factors or groups of factors linked to local workforce development board performance.

It should be noted that this study was not designed to draw causal inferences (see Ragin, 2008; Ragin & Rihoux, 2009). Rather, the expectation was that OLS analysis would result in the identification of variables associated with higher local workforce development board network performance. The respondents based their answers on question such as how their local workforce development boards coordinate with organizations in their network, and their level of political support for workforce development efforts. Based on their answers, it was anticipated that different patterns would emerge.

For this study, the choice of variables (conditions and outcome) for the analysis was theoretically-informed (Rihoux, 2008). Specifically, this study applied Herranz's (2008) framework for assessing how a network coordinates with its members. Herranz (2008) categorized these coordination efforts into three sectoral-based categories: bureaucratic, entrepreneurial, and community network coordination strategies. In addition, community context, including local political support for workforce development efforts, has been shown to affect the performance of a workforce development system (Giloith, 2004).

Prior to applying OLS analysis to determine variable importance for local workforce development board performance, and to gain an exploratory understanding of the relationships among the different factors, an exploratory factor analysis was conducted. The regression models were estimated in SPSS 26 using the OLS regression procedure. Further, all models were constructed with the standard modeling method in order to completely examine the network coordination strategy framework (i.e., all predictors were entered in a single block rather than in

a stepwise procedure). The multiple regression analyses used did not include model trimming procedures.

After conducting analyses in blocks of variables, where the five blocks included the three network coordination strategies (entrepreneurial, bureaucratic, and community-oriented) as well as the institutional logic and community context, this study examined the beta weights of each variable. More specifically, the independent variables were ordered by the absolute size of the beta weights from highest to lowest. Finally, this study explored the same variables using a regression tree procedure. Both dependent variable models were tested to determine if variable importance was similar as compared to the regression models. This procedure provided exploratory information about which variables matter most.

### **Summary of Propositions**

As appropriate for an exploratory study, the research began with tentative propositions to structure the analysis. These propositions should be viewed as speculative areas of exploration rather than fully testable hypotheses for confirmatory purposes.

One tentative assumption that guided the research is that different board locations require different coordination strategies.

*Proposition 1: Local workforce development boards that operate as a 501(c)(3) and employ entrepreneurial network coordination strategies will be linked to better performance.*

*Proposition 2: Where a local workforce development board operates in their local area may be linked to better performance.*

This study examined other potential factors that may be associated with better network performance. Specifically:

*Proposition 3: Local workforce development boards that have shared workforce development policy goals with local government will be linked to better performance.*

*Proposition 4: Local workforce development boards that exhibit board member stability will be linked to better performance*

### **Dependent Variable: Local Workforce Development Board Performance Outcome for Adults**

Local workforce development board success was measured by how well boards are able to meet the needs of job seekers and businesses. Fortunately, defensible, standardized measures of each local workforce development board's success are available from the Department of Labor (DOL). The DOL tracks a number of performance measures, but two measures that are arguably the most important were used in this study: (a) how many adults are initially placed in jobs, and (b) how many adults remain employed for at least several quarters. These measures were compared to targets adjusted for a wide variety of economic, geographic, and other factors, as described below. To avoid the noise introduced by year-to-year fluctuations, this study used combined measures based on the indicators from 2013, 2014, and 2015 for each local workforce development board in North Carolina. For example, the adult job retention rate for Western Piedmont Workforce Development Board varied from 98 percent in 2013 to 86 percent in both 2014 and 2015.

The two main performance measures can be described formally as:

- **Adult Entered Employment Rate:** Of those who are not employed at the date of participation, the number of adult participants who are employed in the first quarter after the exit quarter divided by the number of adult participants who exit during the quarter.
- **Adult Employment Retention Rate:** Of those who are employed in the first quarter after the exit quarter, the number of adult participants who are employed in both the second and third quarters after the exit quarter divided by the number of adult participants who exit during the quarter.

## **Performance Targets**

In addition to these performance measures, DOL established yearly targets for each local workforce development board. *The primary quantitative way this dissertation will judge a network's performance is by measuring how close it gets to its DOL performance target for the adult entered employment and adult employment retention rates.* The target is the number that reflects whether or not the board achieved its performance goals.

As noted earlier, these targets are adjusted or standardized for each network using geographic and economic factors. However, it is important to note that the terminology for this target adjustment is confusing because the Department of Labor terms this adjustment “negotiation,” and the resulting target a “negotiated standard.” The term “negotiated” is a misnomer because, according to the state director of performance at the Department of Commerce, there was no negotiation between the local boards and the state for program years 2013, 2014, and 2015. Instead, the targets are statistically-adjusted standards, based on national figures for what each workforce development board should be able to deliver.<sup>2</sup> (.)

The state-level performance outcomes are a function of both the characteristics of the participants served and the relevant labor market. The statistical model appropriately adjusts performance goals for states serving “harder-to-serve” populations and/or states in economies facing more difficult labor market conditions.

## **How Performance Targets are Established**

The statistical model that produces the targets is based on data from individual records of participants served by the Workforce Innovation and Opportunity Act (WIOA) Title I-B and

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<sup>2</sup> DOL uses the term “negotiated targets” because it allows states to conduct true negotiations. North Carolina did not “negotiate” with the local workforce development boards during the years reviewed in this study.



Wagner-Peyser (WP) Title III programs. The data includes detailed information about each program participant's characteristics, program activities, and outcomes.

The variables included in the statistical adjustment model include gender, age, ethnicity and/or race, highest education completed, employment status, disability status, military status, participant earnings history, Wagner-Peyser financial services, limited English-language proficiency, marital status, income level, Temporary Assistance for Needy Families (TANF) or other public assistance, homelessness, offender status, unemployment status, whether or not the participant received supportive, intensive, or training services, and needs-related payments. Other variables include whether the participant established an individual training account, received a Pell grant, or received pre-vocational activity services.

To determine the combined average of the WIOA federal performance outcomes for adults who entered employment and how long they remained employed for program years 2013, 2014, and 2015, this study used data published in North Carolina's Annual Workforce Investment Act report. For each local workforce development board, the average performance was calculated over the three years. This method took into consideration possible outlier performance data from one year to the next.

To calculate how close each local workforce development board got to the performance target, the percent difference in performance for the adult entered employment and the adult retention rates was calculated for three program years (2013, 2014, 2015). For example, to calculate the percent difference in performance for the adult entered employment rate for the Cape Fear Workforce Development Board, the actual performance for each program year (2013, 2014, and 2015) was divided by the negotiated (expected) performance for each program year (2013, 2014, and 2015). The three-year average performance was calculated by adding the

percent difference in performance for each year and dividing by 3. This same method was applied to the adult retention rate performance for the same three years.

### **Independent Variables**

The full Local Workforce Development Board survey is included in Appendix B. The following variables were included in the survey.

#### ***Institutional Logic Context***

The administrative arrangement of a local workforce development board is relevant to its institutional environment. All survey respondents were asked to report location with the question: “Where does your local board’s executive director and staff operate? (City, County, Regional Council of Government, Community College, Career Center or operate as a nonprofit)”

#### ***Board Stability***

All survey respondents were asked to report:

- How many board members have changed since 2013? (Please give total number)
- How long have you been a board director? (less than 1 year, 1-3 years, 3-5 years, 5-8 years, or over 8 years)
- Has the local workforce development board chair changed over the last three years?  
(yes/no)

#### ***Network Coordination Strategy***

All survey respondents were asked questions designed to categorize network coordination strategy as entrepreneurial, bureaucratic, or community.

An entrepreneurial coordination strategy was defined as one that emphasizes taking high risk/high reward approaches to change. The survey items measuring this strategy asked respondents to indicate (on a scale of 1 to 10) how much their board seeks low-risk projects

with normal and certain rates of return or seek high risk projects with chances of very high returns. A second question asked (scale of 1 to 10) about the extent to which their board thought it best to face new projects gradually via careful, incremental behavior or thought it is best to take on bold, wide-ranging, opportunistic acts necessary to achieve the board's objectives. Finally, respondents were asked to indicate agreement (scale of 1 to 7) with the statements, "My board is primarily driven by business needs" and "My board structure is made up of subcommittees that can make decisions on their own without needing majority consensus."

Networks characterized by bureaucratic coordinating processes were defined as employing tactics such as a high degrees of formalized procedures involving written contracts, standardized information collection and reporting, and regularized services (Herranz, 2010). To measure this variable, survey respondents reported agreement (on a scale of 1 to 7) with the statements "Contact with my board members, network and its representatives are mostly on a formal pre-planned basis," and "My board strongly prefers to structure our dealings with networked organizations through written agreements."

Networks with community-oriented coordinating processes are characterized by Herranz (2008) as using tactics such as high degrees of agreements and contracts based on social relationships, sense-making information, and personalized services. To measure this variable, survey respondents reported agreement (on a scale of 1 to 7) with the statements, "Almost everyone on the board has equal say," "Trusted personal relationships are critical when decisions are made on my board," and "Agreements and contracts are primarily come about through informal means."

### ***Community Context***

To measure local political support for workforce goals, all survey respondents were asked to report their agreement (on a scale of 1 to 7) with the statements “Local politicians share the same workforce policy goals as my board,” “My board receives support from local political leadership in the form of funding, partnerships, or in-kind services,” and “My board needs substantial local political support to be successful.” Respondents were also asked about the percentage of time spent meeting with local political leaders (0, 25%, 50%, 75% or 100%) and whether their board had ever experienced significant opposition to one of its existing or proposed activities from local political leaders in the last three years (Yes or No).

### **Statistical Approach**

This section presents the statistical techniques used to explore the data. Procedures for missing values and correlation were used as patterns in missing data could reveal a problem with the survey instrument resulting in skewed data. Missing data analysis was conducted to determine if any pattern exist. Data imputation was not necessary.

### ***Exploratory Principal Component Analysis***

To investigate the number of constructs and the structure of the different network coordination strategy measures reflecting different entrepreneurial, community-oriented, bureaucratic, and institutional contexts, an exploratory factor analysis was conducted. The purpose was to determine if sets of items might form scales associated with each of these four contexts. The scales might be used in regression models if this proved to be the case. If not, this finding would reveal the four constructs (entrepreneurial, community-oriented, bureaucratic, and institutional context dimensions) as multidimensional and therefore problematic as a basis for theory development.

### ***Linear Regression Analysis***

This study used linear regression analysis (OLS) to examine the factors associated with local workforce development board performance. The independent variables included the three network coordination strategies (bureaucratic, entrepreneurial, and community-oriented), institutional context, and community context. Two performance indicators were used as dependent variables: (a) how many adults were initially placed in jobs (Entered Employment Rate) and (b) how many were employed during the fourth quarter after exit (Retention Rate). The variables were examined as single indicators without combining into scales or factors.

### ***Comparison of Beta Weights***

While the OLS analysis focused on the effect of blocks of variables (three network strategies, institutional context, and community context), comparing regression beta weights helped to identify the most important predictors in each group. Importance was defined as statistical contribution to percent of variance explained in the dependent variable. To determine this, the independent variables were ordered by the absolute size of the beta weights from highest to lowest.

### ***Regression Trees***

To further study factors that leading local board network performance, the same variables were examined using a regression tree procedure. This analysis was conducted to determine if variable importance is similar as compared to the regression models and it provides exploratory information about which variables matter most. In addition, regression tree analysis can substantiate or refute that variable importance is similar when compared to the regression models, and help to determine if the regression tree model proved most useful in understanding a path to performance.

## **Qualitative Study**

Local workforce development boards need strong collaboration among government, local employers and industry, training providers and educational institutions, service and advocacy organizations, philanthropy, and other local organizations to support and deliver effective workforce services (Cordero-Guzman, 2014). Organizations involved in the workforce system fall into four broad categories: (a) government and public sector; (b) nonprofits and collaborative entities; (c) employers, industry, and workforce; and (d) education and training providers. For the second research question (“What aspects of leadership, mission orientation, and accountability lead to better workforce development board performance in its function as a Network Administrative Organization”), this dissertation used qualitatively methods to glean best practices from the local workforce development boards that have shown to be successful in collaboration and to allow for comparison of practices between more and less effective boards.

### ***Sampling***

Sampling for qualitative analysis included 12 of the 23 local workforce development boards: the six highest performing boards and the six lowest performing boards in terms of NAO performance. This study used extreme case sampling as having both high and low performing boards provides a comparison of elements present or absent in achieving the NAO performance indicators. The goal of the qualitative analysis was not generalization, but to learn innovations from the top performers and lessons from the low performers.

Semi-structured interviews were conducted with twelve executive directors of local workforce development boards (interview protocol included in Appendix C). Each interview was recorded and transcribed verbatim. The resulting narratives were analyzed using thematic

content analysis designed to explore the respondents' perspectives on leadership, mission orientation, and accountability.

### ***Qualitative Analysis***

A literature review of NAO management behaviors and performance was used as the analytical guide for determining specific principles regarding NAO performance for this study. This study used existing knowledge of NAO management behaviors to identify research questions and to prepare an evaluative framework for guiding the qualitative investigation. To find emergent themes in the data, a narrative analysis of transcripts was conducted. Stories gleaned from the interviews were compiled and analyzed, with a focus on the content and context of each story. Axial coding and relationships among the open codes were determined, and then a process of selective coding was done to find any data that related to the core variables of NAO management such as leadership, accountability, and mission orientation. Stories or content that illustrated themes, insights, and understandings were identified (Ezzy, 2002). Unlike in the pure form of grounded theory, there were no observations beyond interviews and there were no field notes used in the coding process.

### **Measuring NAO Performance of Local Workforce Development Boards**

Local workforce development boards are formalized NAOs and are recognized by scholars to have the ability to be a “network manager” (Klijn et al., 2010), to steer the network successfully (Agranoff & McGuire, 2001, 2003; Kickert et al., 1997; Mandell & Keast, 2009; McGuire 2002; Meier & O’Toole, 2001; O’Toole & Meier, 2004). This study focused on three levels of network operation (environmental, organizational, and operating) to assess the performance of networks and network managers (Mandell & Keast 2008). To distinguish

between high and low performing NAOs, it was necessary to identify appropriate NAO performance measures for workforce development boards.

The two NAO performance indicators used in this study were the number of certified career pathways individuals have, and the certification of their career centers at the time of the study. Developing career pathways requires a unified vision among employers and education providers to identify the in-demand occupation and match employer need with job training opportunities. The certification of career centers is a way to assess how local workforce development boards perform these critical tasks of matching jobseekers to jobs and engaging with community partners. Career centers are the central location for jobseekers and employers work with staff to connect to local workforce opportunities. Each local board was charged by the governor's workforce development board, NCWorks Commission, to develop at least two certified career pathways by the end of the program year, June 30, 2017.

In addition, the NCWorks Commission developed targets for each board to certify 100 percent of their career centers. North Carolina developed criteria to certify the NCWorks Career Center system in four categories: (a) Customer Centered Design and Accessibility, (b) Partnerships and Integrated Services, (c) Professional Staff, and (d) Performance and Customer Satisfaction. The North Carolina NCWorks Career Center System criteria addresses effectiveness (including customer satisfaction), physical and programmatic accessibility, and continuous improvement. Per the federal Workforce Innovation and Opportunity Act, evaluations of NCWorks Career Centers focus on how effective centers are at (a) integrating available services for participants and businesses, and meeting the workforce development needs of participants and the employment needs of local employers, (b) operating in a cost-efficient manner, (c) coordinating services among the one-stop partner programs, (d) providing access to



partner program services to the maximum extent practicable, including providing services outside of regular business hours where there is a workforce need as identified by the local workforce development board, (e) utilizing feedback from one-stop customers, and (f) ensuring equal opportunity for individuals with disabilities to participate in or benefit from one-stop center services (physical and programmatic accessibility). The local workforce development boards did not know if they were considered high or low performers during the interview.

#### **Preview of Chapter Four**

Chapter four outlines the project's quantitative analyses. Specifically, the chapter provides descriptions of the survey data, as well as the dependent and independent variables, before transitioning into a discussion of the statistical results.

## **CHAPTER 4: QUANTITATIVE ANALYSIS AND RESULTS**

### **Introduction**

The previous three chapters introduced this exploratory study examining the institutional logic and community factors that are linked to local workforce development network performance. This chapter provides descriptions of the survey data, as well as the dependent and independent variables, before transitioning into a discussion of the statistical results. The question guiding this exploratory quantitative study is what configurations of a network's coordination strategy and its institutional and community contexts are associated with higher network performance.

### **Survey**

This dissertation employed an original survey design. As described in Chapter 3, executive directors of North Carolina's 23 local workforce development boards participated in the survey. The survey instrument was based on a review of relevant literature as well as interviews with three subject matter experts in the field of workforce development. These experts reviewed the study's survey instrument and provided feedback as it was developed.

The survey was piloted in 2016 using workforce development professionals in North Carolina who had extensive experience working with workforce development boards across the state. After completing the pilot survey, participants provided feedback regarding the clarity of questions and response options, as well as the length of time it took them to complete the survey. This feedback included adding an "other" response to the question asking "where the local workforce development board operates" to capture responses not in the list of choices, and adding a paragraph at the beginning of the survey to explain the purpose of the study.

The final survey was administered via the Qualtrics online platform ([www.qualtrics.com](http://www.qualtrics.com)) during December 2017 and January 2018. Data collection methods are described in greater detail in Chapter 3.

### **Final Sample**

Invitations to participate in the research were sent to the official workplace email addresses of all 23 local workforce development board executive directors in North Carolina. All 23 executive directors responded to the survey, yielding a response rate of 100%. This data cannot be generalized to all local workforce development boards in the country but is a census of all local workforce development boards in North Carolina and is fully representative of the state.

### **Descriptive Statistics of Dependent Variables**

The two measures of performance issued by the United States Department of Labor (DOL) used in this study are (a) how many adults are initially placed in jobs, and (b) how many remain employed for more than four quarters. These two performance measures were used as the basis for constructing the dependent variables (DVs), as described below. The DVs reveal a network's performance by measuring how close the local workforce development board gets to its DOL performance target for the adult entered employment and adult employment retention rates. The target is the number reflecting achievement of performance goals.

To determine the combined average of the Workforce Innovation and Opportunity Act (WIOA) federal performance outcomes for adults who enter employment and how long they remain employed for program years 2013, 2014, and 2015, the data from North Carolina's Annual WIOA report was used. For each local workforce development board, the average performance over the three years was calculated. This method took into consideration the possible outlier performance data from one year to the next.

Table 1 and Table 2 display descriptive statistics for the dependent variables. Table 1 shows that the mean percent difference in performance for how many adults are initially placed in jobs was -7.56%.

**Table 1.** *Descriptive Statistics for the Percent Difference in Performance for Adult Entered Employment (EER) for 2013, 2014, 2015*

Statistic	Value
N	23
Valid	23
Missing	0
Mean	-7.56%
Median	-7.40%
Std Dev	0.0493
Min	-18.03%
Max	3.77%

Table 2 displays the descriptive statistics for the dependent variable that is the percent difference in performance for the adult retention rates for three program years 2013, 2014, 2015. This table shows that the mean percent difference in performance for how many adults are initially placed in jobs is -1.43%.

**Table 2.** *Descriptive Statistics for the Percent Difference in Performance for Adult Retention Rates (RR) for 2013, 2014, 2015*

Statistic	Value
N	23
Valid	23
Missing	0
Mean	-1.43%
Median	-1.63%
Std Dev	0.0241
Min	-6.60%
Max	2.13%

## Descriptive Statistics of Independent Variables

### *Institutional Logic*

The institutional logic variable describes the administrative arrangement where a local workforce development board operates. Respondents chose the location in terms of whether they are housed in offices operated by a city, county, regional councils of government, or other space. At the time of this study, 13 of 23 boards operated in a regional council of government space. Regional councils in North Carolina serve their member governments through a broad range of services, including the delivery of federal and state programs in aging, transportation planning, workforce development, and community planning. Regional councils are authorized and created under North Carolina General Statutes and are owned and controlled by the participating local governments within their regions. In addition, one local workforce development board operated in a community college, one operated in a NCWorks Career Center, three operated in county offices, two operated in city offices, and three operated as non-profit organizations. These frequencies are presented in Table 3.

**Table 3.** *Where Local Workforce Development Boards Operate*

Location	Number of Local Workforce Development Boards
Regional Council of Government	13
Community College	1
Nonprofit	3
NCWorks Career Center	1
County	3
City	2

To dichotomize the variable for where the boards operate, they were grouped based on the frequency of responses. To sort the data by city and county, a variable was created for those that selected county and city and coded 1.

### ***Board Stability***

Board stability was measured in terms of the number of board members that have changed over the past five years, the length of time a board director has had in his/her position, and if the board chair has changed over the past three years.

Table 4 displays the descriptive statistics board stability. On average, 12.35 board members had changed since 2013, and the average length of time a board director had served was less than five years ( $M = 2.78$ ). In addition, 12 executive directors reported a new board chair in the last three years, and 11 did not. About half of North Carolina's boards changed their leadership over the last three years, and most of the boards experienced significant member turnover.

**Table 4.** *Descriptive Statistics for Board Stability*

Statistic	Memberchange	Directortime
N	23	23
Valid	23	23
Missing	0	0
Mean	12.35	2.78
Median	11	2
Std Dev	6.76	1.51
Min	4	1
Max	29	5

### ***Network Coordination Strategy - Entrepreneurial***

The network coordination strategy variable measured three different types of coordination: entrepreneurial, community, and bureaucratic. An entrepreneurial coordination strategy is defined as one that emphasizes taking high-risk, high-reward approaches to change. As discussed in Chapter 3, a number of items contributing to this variable were measured on a

seven-point scale while two were measured on a ten-point scale. These items were converted to a seven-point scale using the conversion numbers illustrated in Table 5.

**Table 5.** *Scale Conversion*

Original	New
7	1
6.33	2
5.67	3
5	4
4.33	5
3.67	6
3	7
2.33	8
1.67	9
1	10

Table 6 presents descriptive statistics for the independent variables contributing to entrepreneurial network coordination strategy after the conversion noted in Table 5 (i.e., all variable means reported on a scale of one to seven). The mean response for “risk,” (whether board members seek low-risk projects or high-risk projects) was 4.36. For the question “gradual” (whether board members think it is best to face new projects gradually or to take on bold and wide-ranging opportunistic acts) was 4.36, For the variable “bsnsneeds” (“my board is primarily driven by business needs”) the mean was 2.17 revealing that most executive directors agree that they focus on the needs of the businesses in the local area. For the statement “my board structure is made up of subcommittees that can make decisions on their own without needing majority consensus,” (labeled “subcomms) the mean was 4.04, near the center of the one to seven range.

**Table 6.** *Descriptive Statistics for Entrepreneurial Network Coordination Strategy*

Statistic	Risk	gradual	bsnsneeds	subcomms
N	23	23	23	23
Valid	23	23	23	23
Missing	0	0	0	0

**Table 6.** (continued)

Mean	4.36	4.36	2.17	4.04
Median	5	6	2	4
Std Dev	1.247	1.180	1.336	2.120
Min	1.671	3	1	1
Max	7	7	5	7

### **Network Coordination Strategy - Bureaucratic**

The bureaucratic network coordination strategy variable considers the extent to which boards were characterized by high degrees of formalized procedures involving written contracts, standardized information collection and reporting, and regularized services (Herranz, 2010).

Table 7 shows the descriptive statistics for the items measuring bureaucratic network coordination strategy. The mean response to the question asking about contacts with board members, network and its representatives, and if they are mostly on a formal pre-planned basis was 3.04. For the question regarding board preference for written agreements, the mean was 3.43.

**Table 7.** *Descriptive Statistics for Bureaucratic Network Coordination Strategy*

Statistic	Formal	Written
N	23	23
Valid	23	23
Missing	0	0
Mean	3.04	3.43
Median	3	3
Std Dev	0.975	1.342
Min	2	2
Max	6	6

### **Network Coordination Strategy - Community**

The independent variable measuring network coordination strategy community is characterized by Herranz (2008) as networks employing tactics such as high degrees of



agreements and contracts based on social relationships, sense-making information, and personalized services.

Table 8 shows the descriptive statistics for the items measuring community network coordination strategy. The mean response to the question asking if almost everyone on the board has equal was 1.96. For the question asking if trusted personal relationships are critical when decisions are made, the mean was 2.70. The mean response for whether agreements and contracts primarily come about through informal means was 3.52.

**Table 8.** *Descriptive Statistics for Community Network Coordination Strategy*

Statistic	Equal	Trust	Informal
N	23	23	23
Valid	23	23	23
Missing	0	0	0
Mean	1.95	2.69	3.52
Median	2	2	3
Std Dev	1.147	1.145	1.473
Min	1	1	1
Max	6	6	6

Community context considered the extent of local political support for workforce goals, and Table 9 shows the descriptive statistics for this variable. The mean response to the question of whether local politicians shared the same workforce policy goals as the board was 2.78. For the question regarding board support from local political leadership in the form of funding, partnerships, or in-kind services, the mean was 2.956. The mean response for “my board needs substantial local political support to be successful” was 3.17.

**Table 9.** *Descriptive Statistics for Community Context*

Statistic	polpolicy	polsupport	poldependent
N	23	23	23
Valid	23	23	23
Missing	0	0	0
Mean	2.78	2.95	3.17
Median	2	2	2
Std Dev	1.312	1.664	1.641

**Table 9.** (continued)

Min	1	1	1
Max	6	7	7

For the question of what percentage of time was spent on meeting with local political leaders, five out of 23 executive directors reported spending 50% of their time meeting with local political leaders, and one reported spending no time in these activities. The remaining seventeen boards spent 25% of their time with local political leaders. Two out of 23 boards responded that they experienced significant opposition to one of their existing or proposed activities from local political leaders in the past three years.

### **Exploratory Principal Component Analysis**

A factor analysis was conducted in order to gain an exploratory understanding of the relationships among the different factors, and to further investigate the number of constructs and structure of the different network coordination strategy measures. The purpose was to determine if sets of items might form scales associated with the entrepreneurial, community-oriented, bureaucratic, and institutional contexts. If this were the case, these scales might be used in regression models discussed in a later section of this dissertation. If the factor analysis revealed the four constructs as multidimensional, they would be problematic as a basis for advancing theory pertaining to the outcomes considered this dissertation.

For this analysis, the sample size was small (23) and unlikely to have enough power for an adequate factor analysis because it violates the common guideline that factor analysis requires at least 300 participants. As Garson (2013) indicates, there is near universal agreement that factor analysis is inappropriate when the sample size is below 50. However, these data are not a sample but rather are a census of all local workforce development boards in North Carolina and, as such,

all factor analysis findings are valid when applied to the North Carolina context. Possible bias due to limiting cases to North Carolina is discussed in a later section. Moreover, this factor analysis was used for exploratory, not confirmatory, purposes, with a view toward considering variable selection for possible scale development.

The data in Table 10 reveal that five dimensions are required to explain the data. This is at odds with the assumption in the literature that there are three context dimensions. Employing the customary Kaiser rule to extract as many factors as have eigenvalues greater than or equal to 1.0 reveals that there are five context factors, shedding some doubt on employing a three-dimension framework in this study.

**Table 10.** *Factor Analysis*

	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.427	31.624	31.624	4.102	29.298	29.298
2	2.554	18.242	49.866	2.570	18.356	47.654
3	1.938	13.842	63.708	1.861	13.295	60.949
4	1.266	9.044	72.752	1.558	11.127	72.076
5	1.136	8.113	80.865	1.230	8.789	80.865
6	.762	5.444	86.309			
7	.645	4.607	90.916			
8	.490	3.503	94.419			
9	.375	2.680	97.098			
10	.177	1.261	98.359			
11	.100	.713	99.072			
12	.075	.536	99.608			
13	.055	.391	99.999			

**Table 10.** (continued)

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14	.000	.001	100.000
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*Notes:* Extraction Method: Principal Component Analysis. Five components extracted.

The factor analysis in Table 10 was performed on all the items which were indicators for the three dimensions identified by prior theory as important in explaining local workforce development performance. These were the entrepreneurial, bureaucratic, and community-oriented dimensions. The factor loadings for items for each dimension are shown in Table 11. See Appendix D for an explanation of variables.

Below are the primary findings emerging from the factor analysis. In this discussion, numbers in parentheses indicate the index number of the factor on which a given item loads most heavily. Ideally, all factors intended to measure a single context should have loaded on the same factor. This was not the case.

1. **Entrepreneurial dimension.** For the entrepreneurial dimension, which includes risk (loads on factor 3), gradual (3), bsnsneeds (1), and subcomms (1), it would be preferable if these constructs loaded on the same factor at a value of greater than .6. Table 10 shows that there seem to be two separate dimensions of two indicators each. Two factors are too few to form a scale, so the decision was made to use these items as individual variables in the later regression model.
2. **Bureaucratic dimension.** Two constructs make up the bureaucratic dimension—formal and written. Both constructs load highly on factor 1, but factor 1 seems equally related to the bsnsneeds and subcomms constructs from the entrepreneurial dimension, along with operates from the institutional dimensions. Due to the bureaucratic items loading on the

same dimension as items from other theoretical dimensions, and because there were only two bureaucratic items, the decision was made to use the bureaucratic items as individual variable in the later regression model.

3. **Community-oriented dimension.** Table 10 shows the informal and equal dimension items both load in the first dimension at greater than .6, however the trust item did not load on any of the dimensions. While two items loaded together from the community network coordination strategy construct, formal, bsnsneeds, and operates also loaded, which were from the bureaucratic network coordination strategy construct, entrepreneurial network coordination strategy construct and the institutional construct. This confirms the need to analyze these items as individual variables in the later regression model.
4. **Institutional dimension.** Table 10 shows that the institutional dimension items (urban, memberchange, chairchange, directortime, operates, nonprofit, COG, citycounty) are dispersed among all five dimensions, demonstrating that these indicators do not measure the same underlying dimension. However, urban, cog, and citycounty all loaded on the same factor (2), and are above the .60 cutoff. While mathematically of possible interest as the basis for constructing a scale, the theoretical justification for using these three items in a scale was absent. That is, there is not a clear meaning unifying these constructs such that they would lend themselves to a scale. Consequently, the decision was made to use these items as individual variables in the later regression section.

**Table 11. Rotated Component Matrix**

	Rotated Component Matrix				
	1	2	3	4	5
Informal (CO)	<b>.947</b>	.062	.122	-.018	.147
Formal (B)	<b>.921</b>	.097	.170	-.025	.179
Written (B)	<b>-.919</b>	.091	.189	-.144	.222
Subcomms (E)	<b>-.882</b>	.053	.117	-.147	.173
Equal (CO)	<b>.877</b>	.130	.237	-.054	.253
Trust (CO)	<b>-.853</b>	.133	.265	-.182	.310
Bsnsneeds (E)	<b>.853</b>	-.133	-.265	.182	-.310
Operates (I)	<b>.659</b>	.254	-.091	.422	.212
Citycounty (I)	-.029	<b>.913</b>	-.091	-.057	.044
Cog (I)	-.047	<b>-.854</b>	-.019	-.160	.202
Urban (I)	-.097	<b>.683</b>	.241	.065	-.018
Nonprofit (I)	.424	.597	-.467	.086	.223
Gradual (E)	-.077	-.080	<b>.884</b>	.220	.037
Risk (E)	.046	.146	<b>.807</b>	-.059	.086
Chairchange (I)	.097	-.004	.004	<b>.837</b>	.202
memberchange	.158	.180	.162	<b>.759</b>	-.274
Directortime (I)	.044	.100	-.076	<b>-.037</b>	<b>-.860</b>

*Notes:* Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 6 iterations.

The factor analysis revealed that none of the individual items loaded. The regression analysis will test each item separately due to these results. While none of the individual items loaded as expected, this study will help in two important ways. It will help to show the important determinants in explaining local workforce development performance and may inform future work in creating different dimensional scales.

## Linear Regression Analysis

This section discusses the OLS regression model and results examining factors that lead to local workforce development board performance. The following subsections will address the ways in which the independent variables related to three different network coordination strategies (bureaucratic, entrepreneurial, and community-oriented) and to institutional and community context categories associated with the two performance indicators.<sup>3</sup> The two performance indicators considered are the number of adults are initially placed in jobs (Entered Employment Rate or EER) and the number of adults employed during the fourth quarter after exit (Retention Rate or RR). EER is a combined measure and is the percent difference in achieving the federal targets for the adult entered employment across the three program years (2013, 2014, 2015) for each local workforce development board in North Carolina. The combined percent difference in reaching the target for the adult entered employment rate is the actual performance for each program year (2013, 2014, and 2015) divided by the negotiated (expected) performance for each program year (2013, 2014, and 2015). A three-year average performance was calculated to minimize the noise introduced by year-to-year fluctuations. Following the factor analysis just discussed, independent variables were examined as single indicators rather than combining them into scales.

All regression models were estimated in SPSS 26 using the OLS regression procedure. Further, all models were constructed with the standard modeling method in order to examine the network coordination strategy framework completely (i.e. all predictors are entered in a single

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<sup>3</sup> This dissertation uses five sets of variables to explain performance. These include the institutional logic context, the community context, and three types of network coordination strategies (entrepreneurial, community-oriented, and bureaucratic).

block rather than in a stepwise procedure). The multiple regression analyses used here do not include model trimming procedures.

This study included all 23 of the local workforce development boards in North Carolina. Because this is an enumeration of all local workforce development boards of interest, the significance level is not relevant as findings are not generalized to other states or other data years.

For exploratory purposes, the individual variables were entered in groups.<sup>4</sup> The block groups were variables for the categories of bureaucratic, entrepreneurial, and community-

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#### <sup>4</sup> NETWORK COORDINATION FACTORS MODELS

Model 1: Community-oriented variables only

Equal

Trust

Informal Model 2: Bureaucratic variables added

Written

Formal

Model 3: Entrepreneurial variables added

Subcomms

Risk

Gradual

Busneeds

#### MODELS WITH INSTITUTIONAL/COMMUNITY CONTEXT FACTORS ADDED

Model 4: Community context variables added

Polpolicy

Polopposition

Polpcttime

Model 5: Institutional variables added

Cog

Directortime

Operates

Memberchange

Chairchange

Nonprofit

Citycounty

Urban



oriented network coordination, institutional factors, and community context factors. The order of the blocks was determined using the best predictor in block 1, and then successively adding the predictors in blocks 2 through 5. The other sets were added to see if they explained additional variance. Block regressions were run for the two different dependent variables, EER and RR, and then two regressions were run with all of the variables and each of the dependent variables. The two block regression models showed that adding variables drawn from each of the five different categories to the model with the dependent variable EER had an effect on the variance explained. The model summaries for the dependent variable RR revealed that all variables are needed to explain the maximum amount of variance, which was still less than half of variance explained.

The model summary in Table 12 shows results for models one through five, with Entered Employment Rate (EER) as the dependent variable and the indicators are in groups (blocks). Using hierarchical (block) regression, one can see how the addition of each indicator set increased R-squared for the model. Considered at the block level, Table 12 shows that at least some variables in each group contributed to the variance explained in Entered Employment Rate. The largest increase in percent explained occurred when institutional variables were added (Model Five). The network coordination variables (through Model three) only explained about 30% of the variance in performance, whereas adding institutional and community context variables brought the level of variance explained to over 75%.

**Table 12.** *Model One Summary Entered Employment Rate (EER)*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.483	.234	.113	.047	.234	1.930	3	19	.159

**Table 12.** (continued)

2	.519	.270	.107	.047	.036	.889	1	18	.358
3	.552	.305	.045	.049	.036	.410	2	16	.670
4	.633	.400	.057	.049	.095	1.107	2	14	.358
5	.882	.778	.186	.045	.378	1.277	8	6	.394

**Table 13.** *Model Two Summary Retention Rate (RR)*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.108	.012	-.144	.026	.012	.075	3	19	.973
2	.263	.069	-.138	.026	.058	1.114	1	18	.305
3	.307	.094	-.245	.027	.025	.220	2	16	.805
4	.363	.132	-.364	.028	.038	.302	2	14	.744
5	.631	.399	-1.205	.036	.267	.333	8	6	.924

Table 13 shows results for Retention Rate (RR) as the dependent variable. Table 13 illustrates that the network coordination factors models (through Model Three) explained less than 10% of the variance in RR. Even when institutional and community context variables were added (Model Five), the percent of variance explained is under half (40%). Thus, the Retention Rate model is weaker than the Entered Employment Rate model, indicating problems with model specification. It is likely that some important variables are omitted from the model and thus the analysis contained in Table 13 must be regarded as exploratory.

### **Regression Results – Comparing Beta Weights**

The previous section focused on the effect of blocks of variables, where the five blocks included the three network coordination strategies—Entrepreneurial, Bureaucratic, and

Community—and the Institutional Logic and Community contexts. That section showed each block contributing to the explanation of the Entered Employment Rate and Retention Rate. However, this only demonstrated that at least one variable in each group contributed to the explanation. To identify the most important predictors in each group (defining “importance” as statistical contribution to percent of variance explained in the DV) one can order the independent variables by the absolute size of the beta weights from highest to lowest. This ordering is displayed in Table 14 and Table 15 for the models for each dependent variable.

In Table 14 (considering the prediction of Entered Employment Rate) the four largest absolute values of beta weights are polpolicy, written, nonprofit, and city/county. There is then a large drop in beta to get to the fifth most important predictor (urban). Thus, I will so focus on the top four contributors to variance explained, discussing them in descending order of statistical importance.

**Table 14.** *Independent Variables – Beta Weights Highest to Lowest for Dependent Variable EER*

Variable	B	Std. Error	Beta	t	Sig
Polpolicy (CC)	0.076	0.048	2.061	1.585	0.164
Written (B)	-0.07	0.037	1.824	-1.876	0.11
Nonprofit (I)	0.175	0.083	1.192	2.099	0.081
Citycounty (I)	-0.124	0.065	1.104	-1.907	0.105
Urban (I)	0.073	0.039	0.684	1.884	0.109
Informal (C)	0.021	0.023	0.675	0.888	0.409
Chairchange (I)	-0.061	0.036	0.621	-1.722	0.136
Gradual (E)	0.02	0.019	0.474	1.058	0.331
Polopposition (CC)	0.078	0.051	0.445	1.515	0.181
Memberchange (I)	0.015	0.023	0.317	0.646	0.542
Polpcttime (CC)	0.029	0.038	0.287	0.778	0.466

**Table 14.** (continued)

Directortime (I)	0.009	0.008	0.278	1.105	0.312
Operates (I)	-0.008	0.023	0.199	-0.37	0.724
Subcomms (E)	0.005	0.017	0.158	0.317	0.762
Cog (I)	0.013	0.048	0.128	0.265	0.8
Risk (E)	0	0.014	0.005	0.016	0.988

*Notes:* B = Bureaucratic network coordination, C = Community-oriented network coordination, CC = Community context, E = Entrepreneurial network coordination, I = Institutional context

The importance of “Polpolicy” in explaining Entered Employment Rate suggests that goal alignment among policymakers and the board is a factor in board performance. If local politicians share the same workforce policy goals as the local workforce development board, this can be important in creating successful job matches between jobseekers and employers.

“Written” is a variable in the bureaucratic network coordination block and was important to EER. This suggests that structuring dealings with networked organizations through written agreements is important to a local board’s success in matching jobseekers to employers.

Whether or not a local board operates as a “Nonprofit” was also important to EER. This suggests that if a board can take any profits it receives from goods, services, donations, or sponsorships, and cycle them back into the organization, their financial diversity influences the jobseeker matching process. Further, recognizing a local workforce development board as a nonprofit helps to show that they serve their community. This demonstration of community connection may also be important in linking jobseekers to employers.

The fact that “City/county” was important to EER suggests that the location of where a board operates within their community can be related to how well a board matches jobseekers to employers.

The diverse group of factors leading to EER performance reveals that the elements of location, network coordination, and local political collaboration are important factors, and a pattern of diverse elements is important to understanding network performance.

Table 15 shows the contribution of each independent variable to Retention Rate, listed from largest to smallest absolute value in beta weights. While the RR model is weaker than the EER model, it is notable that the most important predictors differ. For EER, the most important variables were Polpolicy, Written, Nonprofit, and City/county, with all others markedly lower in predictive power. For RR, Written (rounded to .7) was clearly a stronger predictor than the next five predictors of Nonprofit, Risk, Chairchange, Pubpolicy, Subcomms (rounded to .5). , All other variables were of even lesser importance.

**Table 15.** *Independent Variables – Beta Weights Highest to Lowest Dependent Variable RR*

Variable	B	Std. Error	Beta	t	Sig
Written (B)	-0.013	0.03	0.695	-0.434	0.679
Nonprofit (I)	-0.037	0.067	0.518	-0.554	0.6
Risk (E)	-0.01	0.011	0.51	-0.928	0.389
Chairchange (I)	-0.024	0.029	0.504	-0.849	0.428
Polpolicy (CC)	0.009	0.039	0.487	0.228	0.827
Subcomms (E)	0.008	0.014	0.465	0.568	0.59
Informal (C)	0.006	0.019	0.368	0.294	0.778
Cog (I)	-0.016	0.039	0.326	-0.41	0.696
Operates (I)	0.005	0.018	0.249	0.281	0.788
Citycounty (I)	0.012	0.052	0.228	0.239	0.819
Polpcttime (CC)	-0.01	0.03	0.202	-0.334	0.75
Gradual (E)	0.003	0.015	0.159	0.216	0.836
Directortime (I)	-0.002	0.007	0.109	-0.263	0.801
Poloposition (CC)	0.006	0.041	0.064	0.133	0.898

**Table 15.** (continued)

Memberchange (I)	-0.001	0.018	0.051	-0.063	0.952
Urban (I)	-0.001	0.031	0.018	-0.03	0.977

*Notes:* B = Bureaucratic network coordination, C = Community-oriented network coordination, CC = Community context, E = Entrepreneurial network coordination, I = Institutional context

“Written” is a variable in the bureaucratic network coordination construct and was important to RR. This suggests that structuring dealings with networked organizations through written agreements is important to a local board’s success in finding jobs where local jobseekers can stay employed for at least three quarters.

How a board operates financially, and whether or not a local board operates as a “Nonprofit” was important to RR. This suggests that if a board can diversify their finances, and if a local workforce development board serves their community as a nonprofit, this may be important in linking jobseekers to more long-term job arrangements.

How a board approaches new projects in terms of “Risk” and rewards was important to RR. This suggests that rates of return can be important for a board’s success in finding long term employment solutions for jobseekers.

Finally, the institutional variable “Chairchange” (whether or not a local workforce development board chair changed over the last three years) was important to long term job matching. This suggests that consistency in leadership is a factor in how well boards can find job matches for local jobseekers that are more long term.

The factors that leading Retention Rate performance are more speculative as a weaker model may mean greater model misspecification due to omitted variables. However, it appears that board performance may increase if they operate as a nonprofit. Further, leadership is a factor

in performance as Chairchange was one of the four largest beta weights for Retention Rate. In both models, written and nonprofit had the largest absolute values for beta weights, revealing that they affect both measures of performance. These findings reveal that different elements combined can create a path to performance, and that leadership and how a board operates may have a significant effect on network performance.

To further investigate how the variables explain EER performance, Table 16 shows that the full 16-variable model explained only about 44% of the variance. To get to about 50% of variance explained, the seven variables that mattered most were Informal, Chairchange, Urban, Citycounty, Written, Nonprofit, Gradual, and Polpolicy (see Table 18).

In Table 18, the seven most important variables have been labeled in terms of their association with critical contexts. Variables from the Institutional block are the most numerous among these seven critical variables. However, the single most important variable (pubpolicy) is from the Community Context group. Two others are from the Bureaucratic group, including the second most important variable (written). The Entrepreneurial group is not represented among the seven most important predictors of EER.

**Table 16. Model Summary One – All Variables with Dependent Variable EER**

---

Model	R	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.882	.778	.186	.0455	.778	16	6	.389

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Table 16. (continued).

*Notes:* Predictors: (Constant), polpolicy, chairchange, citycounty, risk, directortime, polpcttime, urban, polopposition, memberchange, gradual, cog, operates, subcomms, nonprofit, informal, written

**Table 17. Model Summary Two – Seven Variables with Dependent Variable EER**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.665a	.443	.183	.0456	.443	1.702	7	15	.183

Notes: Predictors: (Constant), polpolicy, chairchange, citycounty, urban, nonprofit, informal, written

**Table 18. Seven Variable Model with Dependent Variable EER**

Variable	B	Std. Error	Beta	t	Sig
Informal	.023	.013	.747	1.773	.097
Chairchange	-.027	.021	-.269	-1.257	.228
Urban	.056	.027	.521	20.73	.056
Citycounty	-.077	.042	-.680	-1.808	.091
Written	-.045	.013	-1.189	-1.958	.069
Nonprofit	.077	.053	.524	1.455	.166
Polpolicy	.066	.029	10783	2.317	.035

**Table 19. Model Summary One – All Variables with Dependent Variable RR**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.631 <sup>a</sup>	.399	-1.205	.0365	.399	.249	16	6	.988

Notes: Predictors: (Constant), polpcttime, informal, cog, gradual, directortime, chairchange, polopposition, urban, memberchange, risk, citycounty, subcomms, operates, written, nonprofit, polpolicy



**Table 20. Model Summary Two – Seven Variables with Dependent Variable RR**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.489 <sup>a</sup>	.240	-.115	.0260	.240	.675	7	15	.691

Notes: Predictors: (Constant), polpolicy, chairchange, citycounty, urban, nonprofit, informal, written

**Table 21. Seven Variable Model with Dependent Variable RR**

Variable	B	Std. Error	Beta	t	Sig
(Constant)	-.002	.057		-.034	.973
informal	.000	.007	.016	.033	.974
chairchange	-.020	.012	-.414	-1.657	.118
urban	.004	.015	.080	.272	.789
citycounty	.018	.024	.320	.727	.478
written	-.006	.013	-.329	-.464	.649
nonprofit	-.020	.030	-.279	-.663	.517
polpolicy	.003	.016	.179	.199	.845

In summary, the variables representing a network’s coordination strategy (entrepreneurial, bureaucratic, or community-oriented) were not sufficient to explain network performance. Local workforce development board performance was contingent on many factors that may need to work in concert to affect performance, and no single factor rises to the top as most significant. The diverse group of factors leading to EER performance reveals that the elements of community context or environment, network coordination, and local political collaboration were key to performance and a pattern of diverse elements was important to understanding network performance. Retention Rate was not well explained by the model that

includes all the variables. For EER, or the entered employment rate, at least eight variables were needed to explain half of the variance. Thus, this exploratory model was weaker than the EER model.

### **Regression Trees**

To provide a more intricate picture of the factors leading to local board network performance, this section explores the same variables using a regression tree procedure. The better-specified Entered Employment Rate model will be considered first, followed by the Retention Rate model.

The regression tree analysis substantiated that variable importance is similar when compared to the regression models and provided exploratory information about which variables matter most. In reviewing the analysis, the regression tree model proved most useful in understanding a path to performance, as it correctly classified 100% of the cases using the *directortime*, *equal*, *memberchange*, and *risk* variables. The models showed that both EER and RR paths include *directortime* and *memberchange*—indicating that the institutional variables of leadership and stability may be important for board performance. In filtering the variables, the regression tree method found that other variables (e.g., informal and community-context variables) were not useful in predicting performance. This is useful for theory-building as parsimony is a benchmark for good theory and regression trees highlight a parsimonious set of predictors.

For Entered Employment Rate, only four variables were used in tree construction: *directortime*, *equal*, *memberchange*, and *risk*. Two out of four variables are institutional variables (*memberchange* and *directortime*) and the other variables represent two of the three network

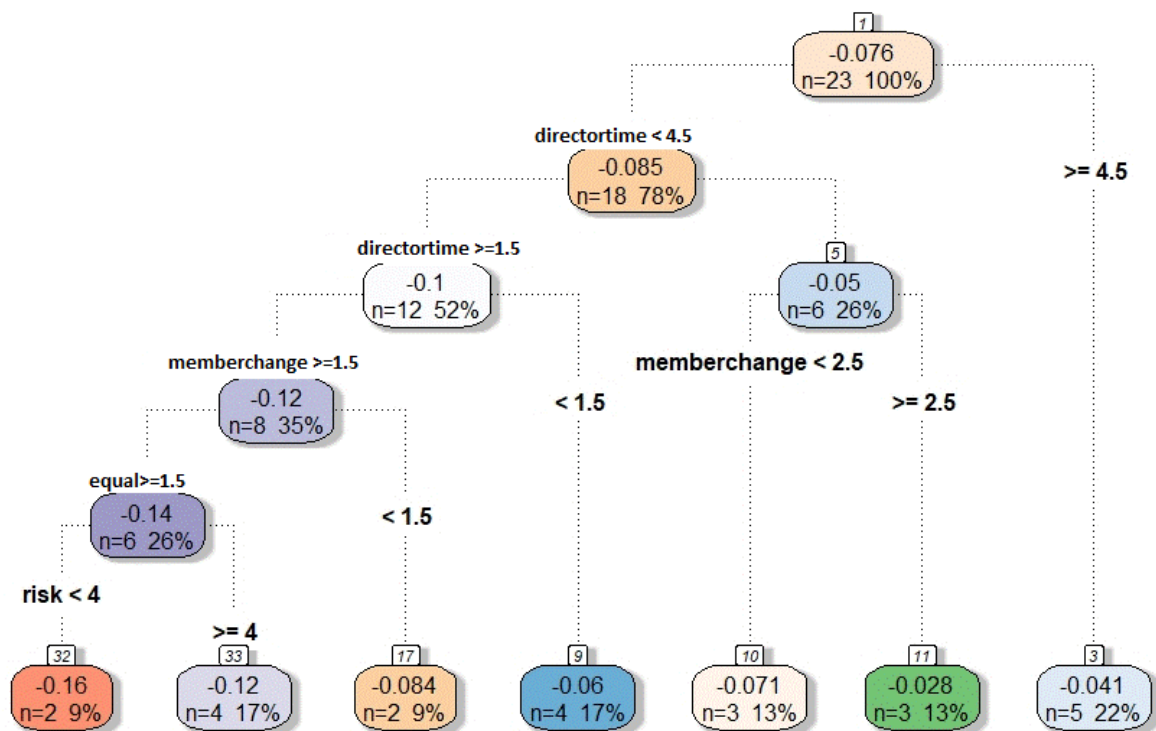
coordination strategy constructs. This regression tree result confirmed earlier findings that variables from each of the constructs are needed to predict EER performance for local workforce development boards. For Retention Rate, or RR, the variables used in the tree construction included chairchange, cog, directortime, gradual, memberchange, and subcomms. Both EER and RR paths included directortime and memberchange, indicating that these may be important variables for board performance. Three out of the six variables in the RR regression tree are institutional variables.

In Figure 1, the Entered Employment Rate Decision Tree, there are seven terminal nodes. The "n" shown in each node sums to 23, the number of local workforce development boards in the study. The most common outcome, represented by the five local workforce development boards in the rightmost leaf (labeled node 3), was explained by a single variable: whether directortime is greater than 4.5. This group had the average EER of -0.041. To take another example, the adjacent right-most outcome (n = 3) is node 11. Here EER was estimated to be 0.028, and membership in this group was associated with directortime greater than 4.5 and memberchange greater than 2.5. All local workforce development boards were accounted for by four variables (directortime, equal, memberchange, and risk) or fewer, depending on the terminal node. This model shows that the variables Equal and Risk were needed only to account for six local workforce development boards.

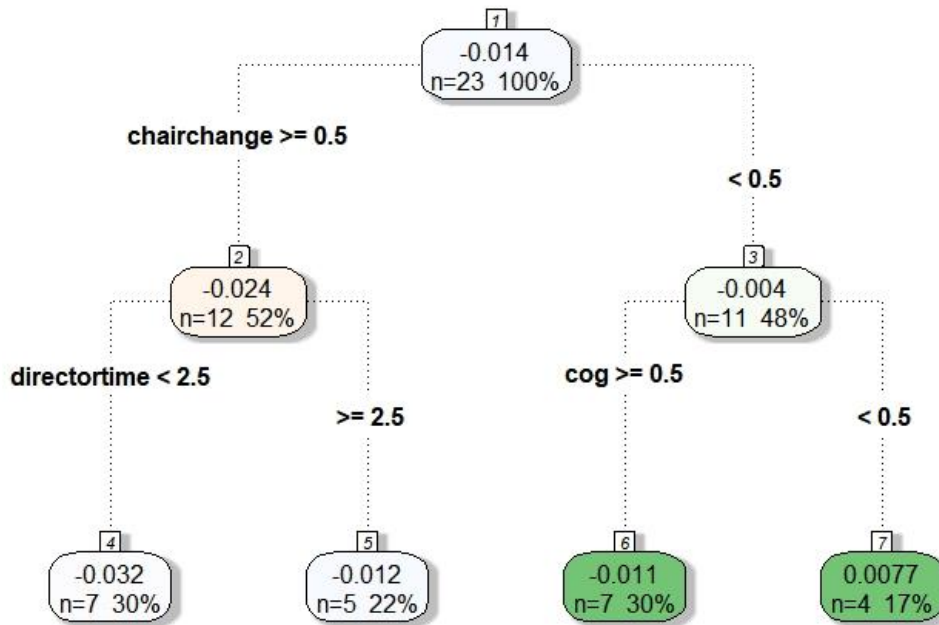
In an OLS regression model, directortime and memberchange accounted for only one-tenth of one percent of variance in EER and were not among the more important variables in the earlier discussion of beta weights. Yet in the tree model, directortime and memberchange emerged as the dominant explanatory variables. The contrast indicates that "percent of variance explained" is not the only criterion of variable importance. In comparing the tree model and the

block regression model, the R-squared values revealed the R-squared for EER .778 for OLS and .778 for the R analysis. For RR, the R-squared for OLS revealed .399 and for the R analysis the R-squared value was .399 as well. When using OLS and comparing all variable models for EER and RR using adjusted R-square, the variables explained RR less well than they explained EER. The RR model may be useful on an exploratory basis. It suggests that the community context factors, such as if local policy aligns with the workforce board, may not be factors that explain RR performance for local boards.

**Figure 1.** Entered Employment Rate (EER) Decision Tree Plot



**Figure 2. Retention Rate (RR) Decision Tree Plot**



For Retention Rate, Figure 2 shows the variables used as input in the tree construction: chairchange, cog, directortime, gradual, memberchange, and subcomms. In Figure 2, the bottom row shows the terminal nodes in the pathways. In terms of paths for the RR plot, if chairchange is 1 (yes) rather than 0 (no), the path goes to the left for that local workforce development board; if not, the path goes to the right. The rule for node 4 in the RR plot, then, is that if the local board had a chairchange value of 1 and the directortime was 1 or 2, then the predicted RR for all 7 local workforce development boards in the node was -0.032. If the directortime was longer and greater than 2.5, then the predicted Retention Rate was higher, -.012 and five local boards showed this result.

## **Conclusion**

This study investigated different network coordination strategies (entrepreneurial, community-oriented, bureaucratic) and the institutional logic of a local workforce development board area to gain an exploratory understanding of the relationships between the different factors, and to determine if sets of items might form scales associated with each of these four frameworks. That is, this dissertation explored institutional and community features—individually or in combination—that are needed for a local workforce board to achieve its federal performance goals. The goal of the analysis was to specify the different combinations of conditions linked to local board performance.

The three different network coordination measures (entrepreneurial, community-oriented, bureaucratic) and the institutional dimension constructs can be used as a basis for theory construction and empirical investigation of networked performance if examined at the individual variable level. While the variables did not load into factors as theorized, the data showed that the indicators were related and could reveal that performance outcomes are based on a variety of coordination types. While the factor analysis led to using individual items (rather than the theorized constructs) in the regression analysis, the study illustrated determinants of performance that may inform future work and contribute to the possibility of creating different dimensional scales.

One limitation noted in this study is that in regression analysis, if an outcome (dependent variable) occurs and the given cause (independent variable) does not, this counts as negative evidence for the strength of that causal relationship (Epstein et al., 2008). In a regression analysis, such configurations are assessed through interaction effects. However, there is a limit to the number of interaction effects that can be included in one analysis and moderate to large

sample sizes are required. In regression analysis, the interpretation of an interaction consisting of more than two variables can be difficult (Braumoeller, 2004). This study used OLS hierarchical (block) regression and beta weights to identify the most important variables for EER (entered employment rate) and RR (retention rate) performance for local workforce development boards. While the RR model results revealed that it was a weaker model than the EER model, it is notable that the four most important predictors differed. For EER, the most important variables were Polpolicy, Written, Nonprofit, and City/county. For RR, the four most important predictors were Written, Nonprofit, Risk, and Chairchange.

In comparing the OLS results to the regression tree results, both EER models revealed different variables of importance including institutional logic, community context, and network coordination variables. These results show that the paths leading to performance may have multiple contingent factors for local workforce development boards, and that institutional logic variables such as how long a director has led a board and how often members change on the board may be the most important.

As stated in Chapter 1, the purpose of this study was not to generalize to network performance at large but rather to generate theories regarding the determinants of network performance. There is currently no universally accepted way to evaluate networks because they are difficult to compare. Understanding what contingent factors of a network's coordination strategy and its institutional and community context are linked to higher local workforce development board network performance may illuminate how to better evaluate networks.

## **Limitations**

This study examined the network coordination strategies and organizational and community attributes of 23 local workforce development boards in North Carolina. This exploratory study had a small population of 23 cases. Small populations can create some challenges when interpreting results, and the factor analysis of the survey responses resulted in five factors that did not cleanly represent any of the network coordination approaches originally posited based on the literature. Although the groupings did not present in a way that made sense based on the literature, the explanation for this finding could be either theoretical or a function of small sample size. However, it appeared that the items for the three network coordination strategies revealed multidimensionality for the constructs, which could allow future research to explore the constructs in different ways.

## **Preview of Chapter Five**

Chapter five includes a discussion of the qualitative findings.



## CHAPTER 5: QUALITATIVE FINDINGS

### Introduction

This exploratory study sought to understand institutional and community factors linked to local workforce development network performance. The purpose of this study was to generate theories regarding the determinants of network performance, specifically, those networks that are goal-directed Network Administrative Organizations (NAO). A mixed methods approach was adopted in order to apply both configurational and interpretive qualitative analyses to gain an understanding of specific factors leading to NAO performance, including leadership traits, mission orientation, and accountability factors. In this chapter, I describe findings from the qualitative phase of my research. The specific question guiding this phase of the research was what aspects of leadership, mission orientation, and accountability lead to better workforce development board performance in its function as an NAO. This study focused on three elements of NAO performance as they are linked to how well an NAO manages its network (Agranoff & McGuire, 2001; Innes & Booher, 1999; Mandell & Keast, 2008).

To assess local workforce board NAO performance, this study focused on elements of Agranoff and McGuire's (2001) network behaviors, or "critical functional equivalents to traditional management processes" (Agranoff & McGuire, 2001, p. 297). These behaviors include the ability to activate or utilize the knowledge of stakeholders in the network and mobilize their efforts through the creation and certification of career pathways (Agranoff & McGuire 2001). The other outcome measure in this study was the timely certification of career centers. Network management behaviors needed for certification of career centers include framing and facilitating agreement on leadership and administrative roles and mobilizing

behavior to get commitment and build support from both key players outside the collaborative effort and those who are directly involved (Innes & Booher, 1999).

### **A Note on the Positionality**

The nature of qualitative research sets the researcher as the data collection instrument. It is reasonable to expect that the researcher's beliefs, political stance, and cultural background (e.g., gender, race, class, socioeconomic status, educational background) are important variables that may affect the research process (Bourke, 2014). My study focused on local workforce development boards in North Carolina, and many facets of my background affect how I view these board and the roles and activities of board participants. In thinking about my potential biases, my family, my previous career, where I grew up and where I am in my life now all have an impact on my perspective. While I hope that my biases did not have a negative effect on how viewed the study participants, my positive views of the local workforce development boards, the participants, and their missions could have inflated my perception of the impact of their work. There was the possibility of over-empathizing with some of the challenges these participants face and neglecting to point out negative attributions. Also, because I am not familiar with all the unique local areas I studied, I worried about missing nuances a native would notice. I kept my unique perspective in mind as I conducted the analysis of the data.

### **Methods**

The qualitative sampling for this study required identification of appropriate participants who could best inform the study and aid in developing a full description of the phenomenon being studied (Fossey et al., 2002). To gather this information-rich data, a purposeful sampling strategy focusing on extreme cases was used. Sampling for this study included 12 of the 23 local workforce development boards, specifically, the six highest performing boards and the six lowest

performing boards in terms of NAO performance. Glaser and Strauss (1967) recommend theoretical sampling of different groups to maximize the similarities and differences of information. This study used extreme case sampling to understand the elements needed for high performing boards and having both high and low performing boards provided a comparison regarding elements present or absent to achieve the NAO performance indicators. The goal of this research was not to generalize, but to learn innovations from the top performers and lessons from the low performers.

Semi-structured interviews were conducted with 12 executive directors of local workforce development boards. Participants were asked questions about the board's mission orientation, accountability, strategic planning, and leadership. Each interview was recorded and transcribed verbatim. The resulting narratives were analyzed using thematic content analysis designed to explore the executive directors' perspectives on leadership, mission orientation, and accountability.

### **Qualitative Analysis**

A literature review of NAO management behaviors and performance was used as the analytical guide for determining the specific principles regarding NAO performance for this study. Tummers and Karsten (2012) argue that public administration scholars would substantially enhance the quality of the research field and could strengthen the theory-building capacity of the various research approaches in public administration (e.g., interpretivism, empiricism, rationalism, and postpositivism (see Riccucci, 2010) by explicitly considering literature during analysis.

This study used existing knowledge of NAO management behaviors to identify research questions and to prepare an evaluative framework for guiding the qualitative investigation. Good

qualitative researchers use an iterative process between theory and data. They begin with a clear research question and must contemplate how extant theory bears on the question (Brower et al., 2000).

After the interviews were transcribed, each line of transcript was sorted into thought units. The qualitative analysis then used open coding during the first phase of data review to remain open to emergent concepts and ideas. Specifically, I developed memos of the twelve transcripts of interview data and sorted the data into groups based on patterns that emerged. These ideas were then subject to detailed description and categories were created based through axial coding connecting the themes discovered through coding. After the axial coding and relationships among the open codes were determined, I conducted selective coding to find any data relating to the core variables identified regarding the three NAO management behaviors in this study. These were leadership, accountability, and mission orientation. As discussed in Eisenhardt et al. (2016), inductive analysis should also include the factors and mechanisms that explain points of divergence. Thus, my analysis included cases with divergent patterns or information and an analysis of why these cases were considered divergent.

Morse (1994) summarized the cognitive processes involved in qualitative research as *comprehending* the phenomenon under study, *synthesizing* a portrait of the phenomenon to account for relations and linkages, *theorizing* about how and why these relations appear as they do, and *recontextualizing*, or putting the new knowledge about phenomena and relations back into the context of how others have articulated the evolving knowledge. This study followed these critical processes by first gathering knowledge on NAO management behaviors through literature research, collecting a specific sample of local workforce development boards to allow for synthesis of appropriate data, and then analyzing the data to for theoretical implications.

Finally, the refinement of the coding allowed the data to reveal new knowledge about important NAO management behaviors.

### **Measuring NAO Performance of Local Workforce Development Boards**

Formalized NAOs, such as local workforce development boards, have been recognized by scholars to have the ability to be a “network manager” (Klijn et al., 2010) and successfully steer the network (Agranoff & McGuire, 2001, 2003; Kickert et al., 1997; Mandell & Keast, 2009; McGuire 2002; Meier & O’Toole, 2001; O’Toole & Meier, 2004). To assess the performance of networks and network managers, Mandell and Keast (2008) focused on three levels of network operation (environmental, organizational, and operating). These three levels of performance are integral to both career pathways and the certification of career centers, two indicators of NAO performance for this study. The environmental level of network operation refers to external stakeholders who are critical to the development of career pathways. The organizational level concerns the structural characteristics of the network, including mission orientation and the development of a joint vision. Finally, the operational level refers to the interaction between partner organizations and their understanding of the network’s mission in the local community.

To understand differences between high and low performing NAOs, it was first necessary to identify appropriate NAO performance measures for workforce development boards. Agranoff and McGuire (2002) contend that high performing NAOs engage in several key tasks:

- **Activating** is the identification and incorporation of the right people and resources needed to achieve program goals.
- **Framing** includes facilitating agreement on leadership and administrative roles, helping to establish an identity and culture for the network (even if it is temporary

or continually changing), and helping to develop working structure for the network (i.e., committee involvement, network assignments) (McGuire 2002).

Strategic planning by participants is one important way to develop an overall purpose and framework for the collaborative effort.

- **Mobilizing** behavior is used to get commitment and build support from both key players outside the collaborative effort and those who are directly involved (Innes & Booher, 1999).
- **Synthesizing** involves creating productive and purposeful interaction among all actors. This includes facilitating relationships in order to build trust and promote information exchange.

This study used two indicators related to how well local workforce development boards manage their network of local community partners in education, training, and employment. As mentioned previously, one indicator was the number of Certified Career Pathways and the other was state certification of their career centers. Career pathways, which can help local leaders improve education and training options, require strong engagement from key state and local partners and stakeholders (Claggett & Uhalde, 2012). Certified Career Pathways are intended to be integrated, seamless collaboration systems of education and workforce development programs developed by engaged employers, workforce development boards, high schools, and colleges. Network management behaviors such as activation and framing are critical to the creation and certification of career pathways. Activating the right players with the right resources is an important task of governing through coalitions of public and nongovernmental organizations in the workforce development community (Agranoff & McGuire, 2001). Another management behavior critical to NAO performance is framing, which network managers can use to create a

shared vision among partners. Developing career pathways requires a unified vision among employers and education providers to identify in-demand occupations and match employer needs with job training opportunities.

Agranoff and McGuire (2001) note that mobilizing and synthesizing are two additional important network management behaviors. This study used the certification of career centers as a way to assess how local workforce development boards perform these critical tasks. A local board mobilizes to build support from key partners inside and outside the network (Innes & Booher, 1999). Synthesizing involves developing relationships to create an environment of knowledge and information exchange (Agranoff & McGuire, 2001). Career centers are the hub of activity for local workforce development boards where jobseekers and employers work with staff to connect to local workforce opportunities. Each local board was charged by the governor's workforce development board, NCWorks Commission, to develop at least two Certified Career Pathways by the end of the program year, June 30, 2017. This study focused on the six top and six bottom performing local workforce development boards. At the time of this study, 12 boards had one certified career pathway, six boards had two, and four boards did not have any certified career pathways.

In addition, the NCWorks Commission developed targets for each board to certify 100% of their career centers. North Carolina developed criteria to certify the NCWorks Career Center system in four categories: (a) Customer Centered Design and Accessibility, (b) Partnerships and Integrated Services, (c) Professional Staff, and (d) Performance and Customer Satisfaction. The North Carolina NCWorks Career Center System criteria address effectiveness, including customer satisfaction, physical and programmatic accessibility, and continuous improvement. Per the federal Workforce Innovation and Opportunity Act, evaluations of NCWorks Career

Centers focus on how effective centers are at (a) integrating available services for participants and businesses and meeting the workforce development needs of participants and the employment needs of local employers, (b) operating in a cost-efficient manner, (c) coordinating services among the one-stop partner programs, (d) providing access to partner program services to the maximum extent practicable, including providing services outside of regular business hours where there is a workforce need as identified by the local WDB, (e) utilizing feedback from one-stop customers, and (f) ensuring equal opportunity for individuals with disabilities to participate in or benefit from one-stop center services (physical and programmatic accessibility).

NCWorks Commission quality improvement staff visit each career center every three years to determine how well local workforce areas integrate available services for participants and businesses and how they are working to meet the workforce development needs of participants and the employment needs of local employers. Local workforce areas must align and coordinate business services with partners and have active partnerships and referral processes in place with federally-mandated partners and services, indicated in a memorandum of agreement. In addition, local areas and their centers must show how they collaborate with local community college(s) to address skills gaps and assist customers in pursuing career pathways and also collaborate with career development coordinators from local education agencies in the service area to address skills gaps and assist students in pursuing career pathways. Local workforce areas must also provide an ongoing learning/staff training environment to increase center staff expertise and ensure staff are equipped to serve customers effectively and efficiently. Further, they must track performance according to the NCWorks Commission's local board performance accountability measures. Local workforce areas should also use the statewide customer feedback



tool on a continual basis to assess customer satisfaction, meet customers’ needs, and respond to customer feedback to improve service delivery and offer services in a cost-efficient manner.

**Table 22.** *Local Workforce Development Board NAO Performance Indicators – Ranked Highest to Lowest*

Each WDB will engage in the creation of at least two NCWorks Certified Career Pathways. Number of NCWorks Commission certified career pathways (as of June 30, 2017)	100% of the WDB’s career centers will be NCWorks Commission certified career centers. % of NCWorks Commission certified career centers (as of June 30, 2017)
2	100%
2	100%
2	100%
2	100%
2	100%
2	100%
1	100%
1	100%
1	100%
1	100%
1	100%
1	100%
1	100%
1	100%
1	50%
1	100%
1	100%
1	100%
1	25%
0	100%
0	100%
0	100%
0	75%
0	100%

## **Findings**

### ***Board performance and mission orientation***

The first analysis focused on examining differences between high and low performing development boards with regard to how they conceptualized their role and appropriate strategies in workforce development. Findings suggested that workforce development boards that prioritize activities beyond grant management by also being a systems builder *and* serving as the regional backbone are higher performing than those that remain focused on grant management alone.

Developed on behalf of the Employment and Training Administration at the U.S Department of Labor, Social Policy Research Associates issued a toolkit for local workforce development boards called *Creating Highly Effective Workforce Boards*. This tool kit discusses the three roles that local boards play in their local area. The first, most basic, role is the Grant Steward. In this role, local boards focus on effective structure, grant management, and outcomes for the local area. The next level role is a System<sup>5</sup> Builder. In this role, the local board focuses on strategic partnerships and collaborative funding and design, pursuing a greater systems approach. The third and final level role a local board can play is the Regional Backbone. In this role, the board positions work leveraging its relationship with workforce development system partners to work on community-wide solutions and community advancement.

These roles are echoed in literature. Provan and Lemaire (2012) note that whole networks, like local workforce development boards, are engaged in interorganizational relationships around a common, universally recognized goal. As previously mentioned, this

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<sup>5</sup> The workforce development system is a network of mandatory and optional partners, programs, centers and service providers that collectively address the community's workforce development needs.

study found that local workforce boards act as NAOs for their networks. Some local boards see their NAO role as the grant manager role, using their tools of government in the form of grants (McGuire & Agranoff, 2011). This role as grant steward can be seen in the principal agent model. As applied in public administration, the principal agent model is a theory about contractual relationships between buyers and sellers (see Pratt & Zeckhauser, 1985; Ross 1973). The principal-agent relationship is governed by a contract specifying what the agent should do and what the principal must do in return (Perrow, 1986).

Some local boards see themselves as system builders as conceptualized in the systems change literature. For example, Behrens and Foster-Fishman (2007) contend that systems change work is focused on organizational or community level outcomes, and these collaboration processes indicate relationships among system components. Local workforce development boards focusing on community-wide or regional workforce solutions engage with local community partners for training and education. In addition, local workforce development boards engage in system building actions such as working with area businesses to develop career pathways and certifying career centers to meet performance for integrated service delivery among partner organizations. If a local workforce development board is solely focused on being a grant steward, the board may not see regional opportunities to link organizations in workforce solutions beyond federal funding requirements. Similarly, Foster-Fishman et al. (2007) note that successful system change requires determining system boundaries and then focusing attention on parts of the system that can affect change in the system as a whole. Grants management is important, but it is only one part of a solution for community advancement. Partnering with local organizations and bringing businesses to meet with local training providers to develop a bigger workforce ecosystem will help to boost workforce development NAO performance.

Boards may also orient their work toward serving as a regional backbone. For example, Mandell and Keast (2009) indicate that organizations in collaborative networks come together to solve complicated problems that cannot be solved alone. The purpose of these types of networks is not to develop strategies to solve problems per se, but rather to achieve the strategic alignment among participants that will eventually lead to innovative solutions for their communities. For local workforce development boards, this may mean working to stimulate growth through targeted funding and/or network facilitation to ensure that network goals are met (Goldsmith & Eggers 2004). Such NAOs are established locally for purposes of accomplishing broad goals, such as those related to regional economic development (Gebauer et al., 2005; Piore & Sabel, 1984; Saxenian, 1994).

**Missions of high performing boards.** This study found that only one of six high performing boards saw their principal role as grant steward for the local area. Conversely, five out of six low performing boards noted that they value being grant stewards over being system builders or regional backbones. Three out of six high performing boards saw themselves as a system builder, and only one low performing case reported being a systems builder. Two out of six of the high performing boards saw themselves as both systems builders and regional backbones, and four out of six boards of high performing boards viewed themselves as regional backbones. No low performing boards saw their roles as regional backbones.

Strong collaboration among government, local employers and industry, training providers and educational institutions, service and advocacy organizations, philanthropy, and other local organizations is often needed to support and deliver effective workforce services (Cordero-Guzman, 2014). In this study, high performing boards were strategic and viewed their role in a region as the backbone or central point that convenes all other actors. Provan and Kenis (2006)

developed a typology of governance for networked organizations: (a) Shared governance, which occurs when the organizations composing the network collectively work to make both strategic and operational decisions about how the network operates; (b) Lead-organization governed, where there is a more powerful, perhaps larger, organization that has sufficient resources and legitimacy to play a lead role; and (c) Network Administrative Organization (NAO)-governed, which is similar to lead-organization governance but the NAO is an organization specifically created to oversee the network and the NAO is not involved in the manufacture of goods or provision of services. In this study, local workforce development boards act as the NAOs for their local area, and high performing boards used this role to leverage strategic community partnerships for workforce development. Low performing boards used their role as NAOs as federal grant managers to fund projects rather than using their role as system builder or regional backbone to collaborate with organizations to develop career pathways and to collaborate with community partners as part of their career center certification requirements.

In this research, executive directors of high performing boards noted that grants management should not be their focus when collaborating with other community organizations. For example, one board director indicated:

I believe it is most important to be the regional backbone and that is our goal. We aren't there and we spend too much on grants management. We see that as a goal, and we are very close to achieving this goal.

As described earlier, the collaboration performance indicators for this study included the number of Certified Career Pathways local boards have and if they have certified their career centers by the deadline for certification. High performing boards met or exceeded the state's target for the number of Certified Career Pathways and the certification of their career centers.

Career Pathways represent the ability of a local board to unify community education and workforce development programs developed by boards, employers, high schools, and colleges in order to train jobseekers for in-demand jobs. Career centers are the hubs for the different actors to deliver integrated services. Criteria for certification include elements of system integration and inter-agency working agreements. If a board solely focuses on being a grant administrator, they are not focused enough on bringing community actors together to collaborate and integrate their services with diverse organizations.

Executive directors of high performing boards saw their work as extending beyond grant management to play a larger role in the communities they serve. Instead, they saw themselves as system builders. They convened stakeholders, connected or aligned education workforce and economic development, and ensured system integration to develop regional strategies for their communities. As one director noted:

I would say a combination of system builder and regional backbone, but the focus of board - is system building. We have a good system and collaborative partnership with folks that we work with. Board sees the need to expand that - we can't say we collaborated it must continue. Grant steward is important, but community advancement is huge too. Everything that they do is because of that.

A second executive director stated:

First this board was a grant steward – and we were all about compliance and outcomes. As we grew and WIA (Workforce Innovation Act) came - there was a need to build strategic partnerships and the consortium became a key player. We went from annual to a biannual meeting among all counties working together. We are becoming a true regional backbone.

Further, executive directors viewed the role of the backbone as central to their mission.

For example, one said:

I would say all are important, but grant steward is not our sole goal. Our main focus is system builder to make sure we are collaborative effectively looking outside of WIOA funding, but we really want to work towards being the regional backbone we should be.

**Missions of low performing boards.** Conversely, executive directors of lower performing boards noted that being a grant steward is important and recognized that they do not see themselves as regional backbones. A director of one low performing board revealed seeing themselves as the funders with the grant opportunities who wait for the partners to come to them rather than reaching out to other organizations to develop regional, community-wide solutions to workforce issues. This director stated: “We engage education and training providers by helping to connect them with funding opportunities. We let them come to us a lot and do not go to them as much though.”

Executive directors of low performing boards admitted to focusing more administering federal funds and monitoring grants to training providers and employers than on working to collaborate with diverse organizations. For these respondents, being a good grant steward meant providing oversight for funding distribution, negotiating performance measures, and developing appropriate local workforce plans—all tasks that are required by federal law. As one director stated: “This year, we are focused on being a good grant steward. Ultimately, we know that the regional backbone is most important, but in order to do it you have to dig in specific things to get it done.”

It is important to note that executive directors of low performing boards did not see themselves as underperforming. Rather, they saw grants management as a critical function of

their board. They viewed being good grant stewards and focusing on the legislative requirements, as important. From this perspective, boards that are able to develop certified career pathways and also certify their career centers are able to see beyond their grants management role, and work to engage cross-agency partners, build connected systems and reach new or outside partners to advance a common workforce development vision for their local areas. As one director argued, “being a good steward of public funds and to make sure that money is spent fairly and also establishing partnerships and collaborating is important, but not as critical as expertly handling grants.”

**Table 23.** *Local Workforce Development Board Mission Orientation*

Mission Orientation	High	Low
<b>Grant Steward</b> - concerned with effective structure of programs, grant management, and developing an outcomes system to track expenditures.	Case 9 (1 out of 6 high performers)	Cases 2, 3, 4, 5, 6 (5 out of 6 cases)
<b>System Builder</b> - focused on building strategic partnerships, collaborative funding/design, greater systems approach	Cases 10, 11, 12 (3 out of 6 high performers)	Case 1 (1 out of 6 cases)
<b>Regional Backbone</b> - positions work that leverages the system towards solutions and community advancement	Cases 7, 8, 10, 12 (4 out of 6 cases)	

Table 23 reveals the different mission orientations of local workforce boards. Some directors viewed their mission as just giving out money to those that need it through being good



grant stewards with federal WIOA funds, others saw their boards as the connection between partners or system builders, and some saw themselves as a strong regional backbone leveraging the system to allow community advancement. Several directors noted that they would like to build their capacity beyond being only grant stewards or system builders. This insight is useful for understanding the elements that lead to network performance. Provan and Milward (1995) argue that the context and structure of a network is a key variable for network success, and that resource munificence (public funding) is vital for maintaining effective networks. This research demonstrated that access to public funding is a component for success and boards that can leverage external organizations in their regions to become regional backbones are ultimately higher performing than those who do not extend their services beyond giving out grants.

**Contingent factors.** Given the importance of understanding why low performing boards often view their mission as grant stewards, this study explored contingent factors that may prevent boards from expanding their role to systems builders or regional backbones. Findings revealed that mission focus may be constrained by the environmental context within which a board operates.

According to Herranz (2010), clique control of the network, distributional inequities, selection bias in network membership, social isolation of network members, social exclusion of nonmembers, and discriminatory behavior toward other network participants could create challenges for local boards to engage in system building. In addition, low performing boards may not be able to focus beyond grants management because they do not have the capacity to build relationships to expand their system.

This study expanded upon these findings, revealing that although federal programs under WIOA and other legislation support the public workforce system through funding distributed by

state and local workforce development boards, local systems must also leverage other resources to sustain workforce programs and initiatives prioritized by leaders and other stakeholders. For example, one executive director noted that limits in their staff and capacity forces them to be grant stewards, stating, “we are a grant steward—we want to be a system builder and a regional backbone but being a grant steward is most important right now due to limits in staff and capacity.”

Another reason low performing boards may not be serving as the regional backbone for their local area could be that another organization already serves as the backbone. As one director noted:

We are a grant steward, and while I think we would be the regional backbone if we could, and one the reasons I think that we are not because in some instances our board tries to keep its identity and its efforts separate from a large board that is near us. We really struggle with keeping our own identity.

Finally, some low performing boards in this study focused on grants management as a result of an external occurrence in the community preventing them from working on building their workforce system. The director of one low performing board that sees themselves as a grant steward noted that the board experienced challenges in their local area, as the area had shifted from a major industry of textile manufacturing to advanced manufacturing. Thus, the board working to create new partnerships and collaborations but focused on grant stewardship first. This shows that capacity for network performance is dependent on partnerships in the community that collaborate with the local board to provide services. While some partnerships are based on specific grant funds, system-building partnerships need more than those funds to sustain collaboration. A local workforce development board needs a community with processes

to drive consensus building (Bates & Redmann, 2002). Therefore, a local workforce development board's ability to foster relationships among actors in the workforce system may be a critical need for a local workforce development board's performance.

**Discrepant Case Analysis.** While there was a dominant pattern observed among high and low performing boards, there were exceptions. One out of twelve cases did not fit the proposition that high performing boards are strategic and view their role in a region as the backbone or central point convening all other actors as system builders. The case that did not fit was a high performing board that saw its role as a grant steward, and admitted to wanting to be a regional backbone but is not there yet. As the director stated, “we are a grant steward but are really working towards being the regional backbone we should be. I would like to move to regional backbone, but we are doing systems builder behind the scenes with career pathways.”

This suggests that high performing boards may not consider themselves regional backbones but may use their role as a grant steward to convene the education and workforce partners in their local area and in doing so, act as a system builder. In rural areas especially, funding is scarce for workforce development projects. The discrepant case here is an example of this, as the executive director saw the board as needing to pull resources together to serve the local area. According to the director, “we look at what everyone can bring to table and serve are the intermediary. When it is time, we help bring the community college in [to partnership opportunities].”

As a grant steward for a rural area, the director of this board saw the stewardship role as most important because the board connects funding to stakeholders and connects education, workforce, and economic development actors. The director noted using the role as grant steward to leverage program resources, build capacity, and develop community strategies. This suggests

that while grant stewards tend to focus on program outcomes, for rural areas, these program outcomes may provide legitimacy to convene their local partners. Provan and Milward (1995) viewed network context and network structure as key variables for NAO success. They argued that having ample resources is important for maintaining effective networks, but it is not sufficient for the effective delivery of services. Thus, for some rural areas, external factors must be accompanied by network structures to foster high network effectiveness.

The qualitative findings presented to this point lead to Proposition One: *Higher performing boards are systems builders and/or regional backbones while lower performing boards tend to concentrate on grant stewardship.*

#### ***Leadership patterns in high and low performing boards***

The second phase of analysis focused on understanding the nature of leadership in high and low performing boards. Specifically, board leadership in this study was explored through thought leaders and champions. Local workforce development boards are composed of local community and business leaders. The board members provide strategic leadership in an effort to align economic development, business needs, education, and workforce development. Without the workforce board's leadership, businesses do not find the skilled workers they need to hire and workers who are unskilled or with outdated skills do not find jobs (Copus & Leach, 2014; Eberts, 2013; Hewat & Hollenbeck, 2015). Local workforce development boards need strategic leadership to foster public and private partnerships, develop resources that ensure job seekers find employment, and help businesses find talent to fill job vacancies resulting in regional economic growth for the 21st century (Good & Strong, 2015).

In research on collaborative partnerships, Nowell and Harrison (2011) determined that undeclared leaders in the form of thought leaders and champions helped to drive work forward in

unique and important ways. These leaders assume positions that are essential to driving the work of the board, both for supporting board members and for the external growth of the board's work in the local area. Thought leaders are individuals who are seen by the group as visionaries for the collaborative and help to orchestrate the collaborative toward the vision (Nowell & Harrison, 2010). These thought leaders help to move ideas forward and guide board members to accomplishing goals. Champions refer to individuals who work in an active role promoting for the collaborative to external stakeholders, helping to secure resources and support for the work of the collaborative (e.g., Foster-Fishman et al., 2001; Nowell & Harrison, 2010). Champions can build bridges for boards to connect to organizations outside of the board.

Most of the executive directors of low performing boards responded that they did not have either thought leaders or champions. Without thought leaders to push ideas internally and get board members engaged about workforce initiatives, a board was described as looking to their executive director, a person serving as staff rather than a community leader appointed by elected officials. Having administrative staff lead the ideas for the board may not bring in the necessary buy-in and coordination with community leaders who are connected to resources. Thus, this situation can negatively affect NAO performance.

Board leadership is critical for local areas to connect to needed resources. To provide funding and resources for their workforce systems, local leaders and other stakeholders need to understand the funding landscape. Changes in government funding, employer dynamics, and the broader economy often affect local workforce systems. For example, a long-term decline in federal workforce funding coupled with an increased demand for workforce services in the wake of the Great Recession has strained public workforce programs (Wandner, 2012, 2013). With these challenges to funding local workforce systems, many local leaders and workforce

stakeholders are looking for new sources of funding and resources, including foundation grants and employer-led initiatives, to support local workforce development. Responses in this study suggested that low performing boards often lacked a trusted community leader willing to connect them to workforce resources. One executive director stated:

I had a seasoned board member who wanted to do more work. Once he headed it up, he wanted to dump on staff and couldn't guide. It is one thing to say you want to do the work - you have to do more than come to a meeting and talk for an hour, you need to help make those connections within the community.

Although federal programs under WIOA and other legislation support the public workforce system through funding distributed by state and local WDBs, local systems also leverage other resources to sustain workforce programs and initiatives prioritized by leaders and stakeholders. According to Eyster et al. (2016), national and local foundations may support local workforce efforts and state and local government funding may also contribute to local workforce development. To garner local government funding, local workforce development board members need local government champions advocating for their workforce strategies and initiatives.

Discussing the lack of bridge-building champions, the director of one low performing board noted that partners “come to us because of the funding.” Waiting for partners to come to the board rather than having a connection to the community reveals the need for champions. One director stated that the board had “no [champions]. We collaborate with people outside the board, and it’s based on their roles. Our consortium supports but not through advocacy. My role [as executive director] is to show them how to make that relationship.”

Directors of low performing boards also described under-committed actors. As one stated, “we have a lot of board members that want to be a part of the board, but a lot of members don’t have the time to commit to working with other local organizations.”

**Thought Leaders and Champions in Collaborative Performance.** For local workforce development boards, thought leaders are thought to be visionaries who guide collaborative work. Champions are seen as the bridge-builders between the board and the local community partners who create connections that form collaborative relationships in their local communities. Low performing boards in this study generally lacked a trusted community leader to connect boards to workforce resources, and they had under-committed actors. High performing board champions helped to convene needed actors and were familiar with community and actors. Thought leaders in high performing boards helped to guide the board through processes and activities and were able to successfully reach out to businesses and education providers for collaboration opportunities.

Findings from the analysis of high and low performing boards generally supports the proposition that local workforce development boards with identifiable thought leaders and champions (who were not staff members) were higher performing than those without these two types of actors. Nowell and Harrison (2011) argue that undeclared leaders in the form of thought leaders and champions help to drive work forward in unique and important ways. These leaders take on roles critical to maintaining the momentum of the work of the collaborative, both in terms of internal support and motivation and external growth of the board's work in the local area. Partnerships around workforce issues are typically fragile, short-term, and opportunistic, rather than strategic; to achieve system change, both public and private sector actors need to be integrated into the initiatives.

Executive directors at high performing boards noted that they had some form of thought leaders. For some it was a combination of individuals, for others it was a key person who is a visionary. Two of six directors indicated that their boards did not have champions, and the boards with champions indicated having more than one, and that they were part of the board.

On the topic of champions, one executive director reported:

We have two. One is a board member who has been on board 18 years or more and he has the influence within the several counties and has a major business in the area. His work and advocates the work he does.

Another director of a high performing board also commented on multiple individuals serving in these critical roles:

We have more than one thought leader. Some board members are more engaged than others. Our board chair and vice chair are from [a company] and they do amazing things. We ask them to do as much they can do. We engage with other employers that are outside and they help to set the vision on the sector strategy side.

Thought leaders and champions helped to connect the board with resources by being familiar with community and actors. As one director stated:

We don't have just one (thought leader). We have a combination of thought leaders that have expertise in their areas, and they are respected by members. Former board chair - was a key person. Had worked and knew economic development and workforce development and knew them like the back of his hand. He knew how to communicate and draw other stakeholders to table.



Further, the actions of thought leaders help local boards by guiding them through processes and activities. One director noted:

We have a good chairman that helped to structure the way we operate. It is his vision that work gets done in committees - the board votes on it. The leadership committee itself embodies role of the thought leader to make sure that the committees are doing what they are supposed to.

High performing boards were successful in their outreach to businesses and education providers because they have champions for their board. One executive director noted that champions “bring all partners - trainers at community colleges, schools, and businesses to the table.” Another respondent elaborated on the value of thought leaders:

We were one of the only boards to meet or exceed all of the federal board measures. That doesn't necessarily mean a bad job and if you fail to meet the measures you aren't doing a poor job. If we do the right thing in serving employers and job seekers and knowing what our goals are and having a champion to make those needed connections in the community.

**Discrepant Case Analysis.** There were two cases that did not fit this pattern of results. In one case, the director of a low performing board (without the target number of Certified Career Pathways or a certified career center) indicated having thought leaders and champions for their work. It is possible, however, that the leaders identified did not have critical alliances needed to garner needed funding to accomplish community-level outcomes like career pathways. With regard to thought leaders, the director of this board said:

Two folks come to mind - one is economic development (EDC) person and other person is the Department of Health and Human Services (DHHS) director and for a number of

reasons.” “EDC lets us know what types of industry and what that future labor force will look like. Good interaction will look like. And with our DHHS director, he brings a lot of information with future ideas regarding healthcare and some of the integrated services - instead of treating - improving environment versus treating disease.

This director also identified champions, pointing to the “community college representative as he tends to try to get the right folks around the table, also, our career center manager.”

This board had some unique challenges in their local area, as they had to change from textile manufacturing to advanced manufacturing as their main industry, and were working to create new partnerships and collaborations to develop career pathways and link education and training to local employer needs. These factors may have forced the board to work on re-building their network of leaders to help develop relationships for future collaborations.

The high performing board that without thought leaders and champions noted may have still been successful at developing career pathways and certifying their career centers because their board is part of the Council of Governments (COG) in their local area. Provan, et al. (2006) found that an NAO that is held accountable to principals (such as appointed or elected officials from a council of government) who fund and monitor the network is often more successful in achieving objectives. For this particular case, the COG leadership may have acted as thought leader and champion for the board’s work. This suggests that collective leadership, like the COG leadership, may also play a role in the success of a local workforce development board.

In spite of these discrepant cases, it seems reasonable to propose the following regarding the role of leadership in workforce development board performance.

Proposition Two: *Higher performing boards tend to include thought leaders and/or champions while lower performing boards lack committed actors and bridge-builders.*

### **Strategic Plan Use and Structure for Local Workforce Development Boards**

Last, this study sought to understand practices related to strategic planning for high and lower performing boards. Findings suggested that local workforce development boards with current strategic plans guiding their work and those that structure their committees based on strategic plans achieve better collaborative results than those without such plans and committees. In this study, high performing boards had standing committees based on their board needs, and they also had an executive or leadership committee to help make board decisions. Low performing boards may have had some but not all those things.

Workforce development boards are designed to govern the local workforce development network. Many local workforce development boards have strategic plans in place to formally track their goals and objectives. According to Kenis and Provan (2009), a more formalized approach is very likely to be used when the local board [NAO] is seeking official recognition to boost its legitimacy among internal and external stakeholders. The strengths of this governance model are its greater legitimacy, sustainability, and efficiency, while its weakness lies in its bureaucratic decision-making process (Kenis & Provan, 2009). In this research, findings generally supported the need for strategic plans. However, two out of the 12 boards did not fit with this pattern. Specifically, one high performing board did not have a strategic plan and one low performing board did. Five of six high performing boards had current strategic plans that drive the work of their board and also had standing committees including an executive or leadership committee. Similarly, five of the six low performing boards did not have current strategic plans or had strategic plans but admitted that they do not use their plans to guide their

work. These boards relied mainly on ad-hoc committees created on an as-needed basis to get their work done.

**Table 24.** *Local Workforce Development Board Strategic Plans and Structure Information*

Case	High or Low Performing	Current Strategic Plan guides work	Standing Committees	Executive or Leadership Committee
1	Low	No	No	No
2	Low	No	No	Yes
3	Low	No	No	No
4	Low	No	No	No
5	Low	Yes	Yes	Yes
6	Low	No	No	No
7	High	Yes	Yes	Yes
8	High	Yes	Yes	Yes
9	High	No	No	No
10	High	Yes	Yes	Yes
11	High	Yes	Yes	Yes
12	High	Yes	Yes	Yes

In general, there were several notable differences between high performing boards and low performing boards in terms of the structure of their boards and use of strategic plans. Provan and Kenis (2007) point out that structure includes committees that do the work of the board and organizations that represent the local area. More formalized NAOs typically have board structures that include all or a subset of network members (Evan & Olk, 1990; Provan, et al., 2004). The board addresses strategic-level network concerns, leaving operational decisions to the NAO leader. In general, high performing boards had set committees and used strategic plans to

guide their work. They had a leadership or executive committee. High performing boards also tended to have a mix of committees based on local area needs and what the board's goals.

Executive directors at high performing boards described structuring committees based on board and local area needs. One director described this in detail:

We have standing committees and, also an executive board committee which is made up of 5 representatives from 5 counties and the chairs of committees. This board handles personnel, financial, policy issues - they try to make recommendations rather than final decisions. We have a standing WIOA committee - adult and dislocated worker programs and a committee to look at career center certification and education and training committee. We have a Youth council committee to look at RFP and MOU for youth programs - making sure that the design and program is what is needed for youth. [We also have a] business service committee – which is a combination of private, education training, economic development.

Another director described the set-up of leadership committees to lead the board's work:

We have several set committees, which include a youth committee and youth council. They oversee the WIOA youth program. We have an evaluation committee that oversees the adult and dislocated worker program and one stop [career] centers. We also have a leadership committee that makes final decisions for the board.

Holland and Jackson (1998) studied the ways in which nonprofit boards can reorganize governance procedures and structures to enhance board effectiveness and performance. Effective boards used strategic priorities as a framework for designing workgroups and assigning their tasks (Holland & Jackson, 1998). These researchers also found that engaging a board in

formulating goals for the board itself not only contributed to group cohesion but produced a vital framework for subsequent board attention.

In this research, high performing boards use current strategic plans to guide their work.

As one executive director reported:

We have one [strategic plan] on our own, and we have one for three years and each year we revise it. It does guide our actions because the strategic plan outlines the board's goals, and that strategic plan really guides the action strategic action plan for each of the committees. Each year they go back - and look to see what they accomplished and revise each year and present to the board in July. Yes, it does guide it.

Another director described a similar process, saying, "I think the strategic plan does guide the work to the extent that we are focused on the 5 sectors, advanced manufacturing, skilled trades, and IT. We have sector strategies and career pathways are within that realm."

In contrast, the executive directors of low performing boards generally did not describe structuring their committees based on their local area needs and instead used committees in a more ad hoc basis. The strategic plan was not always their guide. Some of the lower performing boards had committees, often coinciding with their strategic plan. However, lower performing boards did not have standing committees and strategic plans typically drove less than half of their work. Instead, directors of these boards indicated that the bulk of their work involved budget approval, request for proposals and labor market information, and other routine work. As one director said:

Currently we have a committee structure that goes along with previous strategic planning from a couple of years ago where we had a retreat where we planned the committees. We don't have ongoing committees; they are more ad hoc or as needs arise.

Another noted:

The strategic plan drives our work about 50% because a lot of work is budget approval, requests for proposals and grants, labor market information, and we also do career center updates. Our strategic plan is out of date and the board is still working on strategic planning, and plan to have another one in 2018.

Many directors of low performing boards recognized the importance and need for a current strategic plan. A few noted that their board was re-evaluating their committee structure and was working to create standing committees to guide its work. One said:

Our strategic plan isn't current. All decisions we make as a board are related to issues that come up as they arise. I know it isn't the best way to manage our board and we are working on developing a new strategic plan.

**Discrepant Case Analysis.** The two cases that did not fit this general pattern included one low performing and one high performing board. The high performing board had some standing committees, but other committee work was done on an as-needed basis. This board did have a strategic plan, but they admitted that it did not drive their work. This revealed that high performing boards can operate well without following strategic plans if they use data and evidence-based accountability to track their progress. In this case, the board's focus on accountability may have helped drive their high performance in developing two career pathways and having all their career centers certified on time. Nevertheless, this director stated:

I wish [the strategic plan] drove the work more. We just developed it—and the board designed it January 2017 and effective May 2017. Still trying to get bored out of programmatic focus where they are looking at strategic. Currently have a chair that is big

on accountability and wants to stick to measures. Trying to get them out and thinking and seeing strategically. Trying to move that needle.

The low performing board that did not fit the pattern had a set committee structure, although not all committees were active, and they had a strategic plan as well. However, not all their committees were active and the active committees may have focused too heavily on WIOA funding and grants rather than looking to partner more with community actors for workforce solutions. The director described aspects of this pattern:

Our committee structure is compliant with WIOA, with vocational rehabilitation, continuing education, Wagner Peyser, labor, and youth programs. Not all committees are active. The youth, executive, nominating committee, and program and planning committees review the proposals for program operator. We also have committees to deal with ad hoc actionable items.

These general findings, then, lead to Proposition Three: *Higher performing local workforce boards tend to use strategic plans and standing committees to guide their work while lower performing workforce boards do not.*

## **Conclusion**

This study found that the presence or absence of leadership and mission orientation lead to better workforce development board NAO performance. Findings from an analysis of high and low performing boards generally supported the proposition that local workforce development boards with specific thought leaders and champions who were not staff members to the board were higher performing than those without these two types of actors.

Local workforce boards showed differing degrees of capacity for supporting their local area's workforce needs. Higher performing boards viewed their mission as the backbone or



central point that convenes all other actors. Low performing boards admitted that their mission was to be good grant stewards in their local area, and that their mission orientation was not to be the backbone of their region.

Local workforce development boards that act primarily as a grant steward may, as Guo (2007) suggests, create governmental dependence for these funds in their local community. This could eventually shrink the base of public support for nonprofit organizations and limit their community roles (Guo, 2007). In contrast, higher performing boards generally see their task as minimally satisfying the needs and interests of stakeholders at network and organization levels while emphasizing the broader needs of the community and the clients the network must serve (Provan & Milward, 2001). Furthermore, when local workforce development boards operate at a strategic level from an economic viability perspective, engaged board leaders become the core of the wholesale delivery model with impact at the community level (Babich, 2006;). As Kenis and Provan (2009) assert, the NAO, which can be a government entity or a non-profit organization, will be established with the express purpose of governing the network.

### **Preview of Chapter Six**

Chapter six examines the major findings of this study, their relation to current research, and ideas for future research.

## CHAPTER 6: DISCUSSION

This exploratory study examined factors leading to network performance by specifically considering patterns among institutional and community factors that are linked to local workforce development network performance (Herranz, 2010). In addition, this study qualitatively explored the leadership, mission orientation, and accountability elements of workforce development boards leading to better network administrative organization (NAO) performance.

The factors that affect network performance are important to understand as networked public services have become more prevalent and relied upon (Kapucu & Demiroz, 2011; Keast, et al., 2013; Kenis & Provan, 2009; O'Toole Jr., 1997; Provan & Kenis, 2008; Provan & Milward, 2001; Saz-Carranza, et al., 2016; Turrini et al., 2010). Examining networks of organizations that make up local workforce development systems and the local area workforce development boards who act as network administrative organizations for their local communities can reveal factors that affect network performance in the United States (Giloith, 2004; Herranz, 2008; Herranz, 2010).

This study explored network performance using a mixed methods approach. First, a quantitative study of all 23 local workforce development boards in North Carolina focused on their performance in achieving federal targets for adult workforce development programs. Second, a qualitative multiple case study of 12 of 23 workforce development board networks explored additional factors related to system network performance. To date, there are relatively few empirical studies on the performance of public networks (see Provan, et al., 2007; Raab et al., 2013; Turrini et al., 2010). Despite widespread agreement in the field that alignment with one's environment is a key consideration in understanding performance, we know little about

how match or fit between a network and its environment may relate to performance (Burns & Stalker, 1961; Katz & Kahn, 1978; Pfeffer & Salancik, 1978; Turrini et al., 2010). This dissertation addressed this gap by investigating the importance of institutional, community-context, and network coordination strategy variables and their relation to local workforce development board performance. Local workforce development boards operate in diverse environments. Some are in rural or urban areas, and they operate within different types of administrative arrangements. Some operate in a city or a county space, and others operate independently as nonprofits. This study used common performance measure to facilitate comparison of networks.

This chapter examines the major findings of this study, their relation to current research, and ideas for future research. In advancing our knowledge of local workforce development board performance, this study found that there is no single factor that leads to local workforce development board performance. Local workforce development boards may have paths to performance including multiple and contingent institutional, community context, and network coordination factors. However, some factors were more important than others in influencing performance. In addition, this chapter considers major findings for advancing our knowledge of NAO performance including:

- As an NAO, local workforce development boards focusing on building workforce development connections among community organizations achieved better collaborative performance.
- Internal and external leadership was critical for NAO performance. Thought leaders and champions in high performing local workforce development boards provided key leadership

to guide the board and to reach out to businesses and education providers for collaboration opportunities.

- Strategic plans matter, and as NAOs, local workforce development boards who had strategic plans guiding their work and structured committees based on those plans achieved better collaborative results than those who did not.

### **Study Context**

This exploratory study used a mixed methods approach to understand network performance and applied both quantitative and qualitative analyses to understand specific factors important to NAO performance. These factors included leadership traits, mission orientation, and accountability factors. The aim was to generate theories regarding the determinants of network performance, specifically, those networks that are goal-directed NAOs.

The quantitative portion of the study examined network performance of North Carolina's 23 local area workforce development boards. Together, these boards act as NAOs and serve all 100 counties in the state. They are charged with planning, overseeing, and coordinating local and regional workforce initiatives and the organizations that deliver workforce services, including the local workforce office(s) in their areas.

The quantitative analysis for this study included an OLS regression model examining the ways in which the three different network coordination strategies (bureaucratic, entrepreneurial, and community-oriented) and additional institutional and community context categories were associated with two performance indicators: (1) how many adults are initially placed in jobs (Entered Employment Rate or EER), and (2) how many are employed during the fourth quarter after exit (Retention Rate or RR).

The sample for the qualitative portion of study was comprised of 12 of the 23 North Carolina local workforce development boards. The qualitative sample used extreme case comparison and focused on the six top and six bottom performing local workforce development boards. The goal of this analysis was not generalization, but to learn from the successes of top performers and from the notable failures of low performers. Using a specific set of cases of theoretical importance to describe a phenomenon of interest (in this case, NAO performance) allowed me to draw rich insight regarding the phenomenon (Nowell & Albrecht, 2019). Existing knowledge of NAO management behaviors was used to identify research questions and prepare an evaluative framework to guide the qualitative investigation.

This study followed the four cognitive processes for qualitative analysis outlined by Morse (1994): comprehension, synthesis, theorization, and recontextualization of the data. Comprehension was accomplished by gathering knowledge on NAO management behaviors through literature research. Following this, a specific sample of local workforce development board was chosen to allow for synthesis of appropriate data. Data was then analyzed for theoretical implications, and finally, the refinement of the coding allowed the data to reveal new knowledge about important NAO management behaviors.

The remainder of the chapter will address major findings not yet addressed in current literature, findings supportive of current literatures, and, finally, the anomalous findings that merit future study.

## **Findings Not Yet Addressed in Public Administration Literature**

### ***Understanding the Joint Effects of Network Performance Determinants***

The quantitative portion of this study contributed to our understanding of the combination of factors that may affect the performance of public networks. Many studies have tried to

determine which factors affect the performance of public networks. However, there are very few studies in the field of public management that investigate the joint, interactive effects of different determinants on network performance (Cristofoli & Markovic, 2016). Although considerable progress has been made in the current literature on network effectiveness, there are hardly any well-established and generalizable theories (Wang, 2016). Most scholars agree that Provan and Milward's 1995 innovative study on four service-delivery networks led the way for configurational propositions involving structural and environmental factors. Provan and Kenis (2008) furthered this line of research by proposing a contingency theory of network effectiveness. Wang (2016) asserts that even though we have started to employ new methods such as set-theoretic methods to build configurational theories (Raab, et al., 2013; Verweij et al., 2013), more research is needed to consider different research contexts and to test the effects of different factors. Further, Pfeffer and Salancik (2003) posit that what happens in an organization is a consequence of its environment, and particular contingencies and constructs are derived from that environment. By using common performance indicators among workforce development networks, applying Herranz's (2010) network coordination strategies, and including institutional and community-context factors to study workforce development network performance, this study built understanding in the field as to what factors are important to understanding the determinants of network performance.

This study also used regression trees to determine the best predictor of factors for performance. Regression trees can provide a useful comparison with the OLS regression methods (Garson, 2020), and are suitable for a small-N study such as this one with 23 local workforce development boards. In addition, trees incorporate nonlinearities and interaction effects automatically, are parsimonious, and have built-in cross-validation and smoothing. As

Garson (2014) indicates, procedures in the generalized linear model family (e.g., OLS or logistic regression) may provide better estimates when all their assumptions are met. However, in the real world of complex, nonlinear relationships, decision trees may perform better. Table 25 and Table 26 present a comparison of the variable selection results from the regression tree analysis and the variable importance results from the OLS results for the Entered Employment Rate and Retention Rate performance. See Appendix D for an explanation of variables.

**Table 25.** *Comparing Variable Selection and Variable Importance by OLS and Regression Tree Methods for Entered Employment Rate (EER) Performance*

OLS Variable Importance - EER	Decision Tree Variable Selection – EER
Local politicians share the same workforce policy goals as my board	Executive Director tenure
Written agreements	All members have equal say
Nonprofit status	Change in membership
City/county location	Approach to risk

**Table 26.** *Comparing Variable Selection and Variable Importance by OLS and Regression Tree Methods for Retention Rate (RR) Performance*

Variable Importance - RR	Decision Tree Variable Selection – RR
Written agreements	Board Chair change
Nonprofit status	Regional Council of Government
Approach to risk	Executive Director tenure
Board member change	Gradual approach to new projects via careful and incremental behavior.
Local politicians share the same workforce policy goals as my board	Change in membership
My board structure is made up of subcommittees that can make decisions on their own without needing majority consensus.	My board structure is made up of subcommittees that can make decisions on their own without needing majority consensus.

When compared to the OLS models, the regression tree models revealed different variables of importance (institutional logic, community context, and network coordination variables). Table 6 on page 51 shows that paths leading to performance may have multiple contingent factors for local workforce development boards, and that institutional variables such as how long an executive director has led a board (Directortime) and how often members change on the board may be the most important (Memberchange). In using regression trees, filtering the variables found that whether or not local workforce development boards enter into informal agreements between organizations (Informal) and trusted personal relationships are critical when decisions are made (Trust) are not useful in making the best prediction for performance. As Garson (2020) indicates, parsimony is a criterion for good theory and trees highlight a parsimonious set of predictors.

### ***Mission Orientation Plays an Important Role in NAO Performance***

Research question two asked about how aspects of leadership, mission orientation, and accountability could lead to better workforce development board performance in its function as an NAO. The choice of these elements was based on extant research regarding NAO network performance (Agranoff & McGuire, 2001; Innes & Booher, 1999; Mandell & Keast, 2008). There has been much discussion in the governance literature about how to measure outcomes of complex decision-making processes in networks, and the main conclusion is that measuring these outcomes is a difficult task (Klijn, et al., 2010, Turrini et. al., 2010), as decision-making processes in governance networks are lengthy and the goals of actors are likely to change over time. This study contributes to understanding network performance by applying Mandell and Keast's (2008) three levels of network operation (environmental, organizational, and operating) in assessing network performance. The three levels of performance are integral to both career



pathways and the certification of career centers, two indicators of NAO performance for this study. As Turrini et al. (2010) indicate in their comprehensive review of the network effectiveness literature, “identifying an indicator of effectiveness at a network level might lead to a major advance in network effectiveness theory” (p.547).

In this study, some local boards saw their NAO mission orientation as the grant manager role, and others see their role stretching beyond grants management. Local workforce development boards focusing on activities beyond solely grant management also served as systems builders and regional backbones. These boards were higher performing than those that remain focused on grant management alone. The high performing boards in this study viewed their work as extending beyond grant management to play a larger role in the communities they served. Boards that developed certified career pathways and certified their career centers saw beyond their grants management role, and worked to engage cross-agency partners, build connected systems and reach new or outside partners to advance a common workforce development vision for their local areas.

Low performing boards in this research may not have been able to prioritize beyond grants management because they did not have the capacity to build relationships to expand their system. Findings revealed that mission focus may have been constrained by the environmental context within which a board operates. This suggests that clique control of the network, distributional inequities, selection bias in network membership, social isolation of network members, social exclusion of nonmembers, and discriminatory behavior toward other network participants could create challenges for local boards to engage in system building (Herranz, 2010).

In reviewing high and low performing boards and their mission orientations, this study revealed that high performing boards viewed themselves as system builders or regional backbones for their communities, rather than solely grant managers. This supports previous research suggesting that high performing local workforce development boards use their strong collaboration among government, local employers and industry, training providers and educational institutions, service and advocacy organizations, philanthropy, and other local organizations to support and deliver effective workforce services (Cordero-Guzman, 2014). Furthermore, as the NAO, the local workforce development board functions as the entity that helps to build and direct the network, allocates resources, and supports partners to achieve network goals (Human & Provan 2000; Provan & Kenis 2008).

### **Findings Supportive of Current Public Administration Literature**

#### ***High Performing Boards Have Thought Leaders and/or Champions to Lead Them***

This dissertation also focused on understanding the nature of leadership in high and low performing boards. The directors of the high performing boards noted that they had some form of thought leaders. In contrast, most of the low performing boards did not have both thought leaders or champions and many directors acknowledged that they did not have either. Without thought leaders to push ideas internally and get the board members engaged about workforce initiatives, a board was described as looking to their executive director, who is staff to the board and not a community leader appointed by elected officials. This may not bring in the necessary buy-in and coordination with community leaders who are connected to resources and can negatively affect NAO performance.

Network management has been a focus of many public administration scholars, and as Wang (2016) indicates, scholars have investigated network management variables such as

network leadership (McGuire & Silvia 2009) and the identification of and connection to crucial actors (Klijn, et al., 2010). This study contributes to the field by expanding on the work of Nowell and Harrison (2011), and their notion that undeclared leaders in the form of thought leaders and champions in collaborative partnerships help to drive work forward in unique and important ways. In discussing network effectiveness, Weber and Khademian (2008) focus on the “collaborative capacity builder” (CCB) as a mechanism to increase network ability to address complex social issues. These authors argue that knowledge transfer among network members is vitally important for initiative success. The CCB works to facilitate communication and interactions among these diverse groups, thereby increasing knowledge flow and subsequent network effectiveness. The authors explain that:

Authority, or leadership, in networks ... is not granted automatically because of formal titles ... rather it is earned or awarded by other stakeholders to those with access to critical resources or the ability to catalyze and apply them successfully for problem-solving purposes. (Weber and Khademian, p. 342).

In other words, individuals might or might not possess formal authority, but nonetheless take purposeful action to manage actors in the network to achieve collectively desired goals.

Leadership in the form of external and internal actors is an important way to manage the network. Rethemeyer and Hatmaker (2008) assert that a network manager has the ability to “increase or decrease organizational mobility” (p. 637) to pivot a network’s focus from one direction to another. They point out that multiple network managers have specific functions and roles which are sometimes complementary and other times competitive. Nowell and Harrison (2010) also found that those viewed as leaders by their partnerships shared a similar profile both in the range and types of roles played and the capacities enabling them to carry out these roles.

### ***Higher Performing Local Workforce Development Boards use Strategic Plans to Guide Their Work***

This study also sought to understand practices related to strategic planning for high and lower performing boards. Local workforce development boards that had current strategic plans guiding their work and that structured their committees based on those plans achieved better collaborative results than those who did not. High performing boards had standing committees based on their board needs, and they also had an executive or leadership committee to help make board decisions. Low performing boards may have some but not all those things. The directors of low performing boards in this study generally did not describe structuring their committees based on their local area needs; instead, committees were used in a more ad hoc basis, and committee structure didn't align with the strategic plan. The lower performing boards did not have standing committees and their strategic plans were described as driving only about 50 percent of their work.

Higher performing local workforce development boards utilized strategic planning to stay accountable to their responsibility to their community. Poister and Streib (1999) argue that in public agencies of any size and complexity, it is impossible to manage for results in the long or short run without a well-developed capacity for strategic management. Agranoff and McGuire (1999) agree, and acknowledge that networking requires capacities, skills, and knowledge that are different from that of single organizational management. Further "underlying these capabilities is a confidence about achieving the strategic purpose at hand." (Agranoff & McGuire, 1999, p. 28). Lower performing local workforce development boards lack the standing committees connected to their work that helps to build confidence in their potential accomplishments among their stakeholders.

## **Anomalous Findings Meriting Further Study**

### ***Community, Institutional and Network Coordination Factors are all Linked to Local Workforce Development Board Performance***

This dissertation explored the institutional and community features—individually or in combination—needed for a local workforce board to achieve its federal performance goals. This study contributes to the field in several ways by using multiple quantitative analyses and measurable outcomes to understand factors leading to network performance.

Both OLS hierarchical (block) regression and beta weights were used to identify the most important variables related to the two performance indicators: (a) how many adults are initially placed in jobs (Entered Employment Rate), and (b) how many who are employed during the fourth quarter after exiting the federal program (Retention Rate).

In reviewing the beta weights (see Table 14, page 63) to determine variable importance, the findings revealed that for the Entered Employment Rate performance (adjusted for the negotiated target), the variables identified as more important included network coordination, institutional, and community context elements:

- Local workforce development boards need to share political policy goals (Polpolicy). This suggests that Entered Employment Rate is enhanced if local politicians share the same workforce policy goals as the board.
- Structured dealings with networked organizations through written agreements are important (Written). This finding suggests that having the bureaucratic network coordination component of configuring dealings with networked organizations accomplished through written agreements is important to a local board's success in matching jobseekers to employers.

- Whether or not a local board operates as a nonprofit entity (Nonprofit). This finding suggests that if a board can take any profits it receives from goods, services, donations, or sponsorships and cycle them back into the organization, their financial diversity will enhance jobseeker and employer matchmaking.
- The location of where a board operates within their community (City/county). This finding suggests that where a local workforce development board is located is important to matching jobseekers to employers in the area.

Sharing the same policy goals as local politicians is important to local workforce development board (Polpolicy). This is a community context feature, and it suggests that goal alignment among policymakers and the board is a factor in local workforce development board performance. As Giloth (2004) indicates, a strong local political system can provide needed “ground support” for workforce development initiatives. If local political interests do not match up with the workforce needs, it can cause uncertainty for local workforce development networks and create significant constraints to achieving workforce development goals for their local areas.

The "Written" variable, is a factor that captures the bureaucratic nature of the local workforce development board’s network coordination practices among its community organizations. Whether or not a local board operates as a nonprofit (Nonprofit) suggests that if a board has some autonomy in their financial decisions, this may lead to better performance.

The "city/county" variable, is a description of where a board operates within their community. As previously discussed, local workforce development boards in North Carolina operate in city or county offices, within regional councils of government, or as independent nonprofits. Boards operating in city or county office may have a better “fit” in their community and be able to achieve their targets for jobseeker and employer matches. Turrini et. al. (2010)

assert that missing from the literature is what McGuire (2002) has called the *match* between environment and behavior in the network (2010). McGuire (2002) acknowledges that public network performance research reveals likely contingencies among networks and their environments. Thus, theory building is hindered without consideration of these determinants and, unfortunately, there has been little systematic research to date (McGuire, 2002).

The retention rate model identified was weaker than the entered employment rate model, and the most important predictors differed (see Table 15, p. xx). The following were the four most important predictors of retention rate as identified by beta weights:

- The importance of structured dealings with networked organizations through written agreements (Written) suggests that the bureaucratic network coordination where structuring dealings with networked organizations through written agreements is important to a local board's success in matching jobseekers to employers.
- The importance of whether or not a local board operates as a nonprofit entity (Nonprofit) suggests that if a board can take any profits it receives from goods, services, donations, or sponsorships, and cycle them back into the organization, their financial diversity will be important to jobseeker and employer matchmaking.
- The importance of how a board approaches new projects in terms of risk and rewards (Risk) suggests that rates of return can influence a board's success in finding long term employment solutions for jobseekers.
- The importance of whether or not a local workforce development board chair changed over the last three years (Chairchange) suggests that consistency in leadership is a factor in how well boards can find job matches for local jobseekers that are more long term.

Like the entered employment rate model, the retention rate model included both institutional and community context elements and also elements from network coordination. The findings suggest that if a board is able to operate as a nonprofit and can approach projects in an entrepreneurial way, they may be more successful at making community connections that result in longer lasting employment connections for jobseekers and businesses. This study found that “Stability” was an important success factor for local workforce development boards, as well as the length of time a board chair served in a term.

This study shows that local workforce development board performance is contingent on many factors that may need to work in concert to affect performance; in the analysis, no single factor rose to the top as most significant. The diverse group of factors that led to Entered Employment Rate performance revealed that elements of community context or environment, network coordination, and local political collaboration are key to performance and a pattern of diverse elements is important to understanding network performance. This study also contributes to the field of public management in that findings show that collaboration with local political leaders may be an important factor in local workforce development board performance. The community context can include the local area’s political support, which has been shown to affect the performance of a workforce development system (Giloith, 2004). In this research, success in initial job matches and retaining employment for more than a few quarters was also related to their structured agreements with other organizations and how they operated in their local community.

### **Directions for Future Research**

This exploratory study revealed that examining networks with common performance measures can allow an understanding of the important factors for performance and thus build



knowledge in the field. Assessing network performance can be challenging, in part because the content and role of performance measures need to be agreed upon (Koppenjan, 2008). In this study, federal measures intended to measure the performance of local workforce development boards were used to compare network performance. Future research could expand this to a study of all of the nation's 550 workforce development boards or to groups of states with similar demographics. Future studies could also examine why analyses did not converge and try different models for better fit. Research could expand on the institutional and network coordination strategy variables found to be important in this study to determine if a pattern exists within a larger sample.

This exploratory study used two indicators related to how well local workforce development boards managed their network of local community partners in education, training, and employment. The first was the number of Certified Career Pathways, and the second was state certification of career centers. Findings linking leadership, mission orientation, and strategic management to higher or lower performing NAOs can be used to make more discerning judgments of networks. Further, the results of this study may help managers and policy makers gain a more detailed understanding of how to design networks in an effective way or change current networks to achieve effectiveness. Future research could try to capture all the local workforce development boards in a state for the qualitative analysis in order to gain more insights into NAO performance.

### **Study Limitations**

This study focused on one state and may not be generalizable to others. On the other hand, it study included a census of all local workforce development boards in North **Carolina** and this is fully representative of the state. Given its state-wide scope, this study captured the

different ways local boards coordinate their networks in all parts of the state. North Carolina's workforce development system includes remarkably diverse approaches, with some boards operating as nonprofits, some operating in community college space, and others operating in county and regional space. Future researchers could apply this study's methods to look at different states to similarly capture the wide range of approaches used to manage local workforce development boards.

This study applied a regression tree procedure to the data in addition to OLS regression. Garson (2020) and other scholars have noted potential disadvantages and possible limitations associated with decision tree analysis. Garson (2020) noted that regression tree models may not be optimally parsimonious, and "it is not assured that the final model will include the least number of covariates and branches needed to explain target outcomes at a model performance level set by the researcher" (p. 6). However, regression tree models tend to be more parsimonious than OLS regression models.

The limitations of the qualitative portion of this study include potential researcher bias and access to all available information. To address these limitations, semi-structured telephone interviews were conducted to decrease access-related issues and encourage all participants to engage in the study. Interviews allow for personal engagement and a meaningful interaction with practitioners in the field (Luton, 2015). This limitation was also addressed through the use of peer examinations in which the research process and findings were discussed with impartial colleagues with experience with qualitative methods (Krefting, 1991).

## **Conclusion**

As organizations and the communities they serve continue to become interrelated, the relevance of NAOs and goal-directed networks will continue to increase. Understanding how

organizations within a network can achieve common goals will become more and more important. This study helped to build knowledge in the field by examining the relationships between environmental factors (such as operational location, political support) and types of network management behavior in the network (McGuire, 2002). In addition, this exploratory study examined local workforce development board networks that have common performance measures to allow comparison among networks, revealing that local workforce development board performance is contingent on many factors. Although no one factor rose to the top as most significant, some factors were shown to be more important than others.

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## APPENDICES

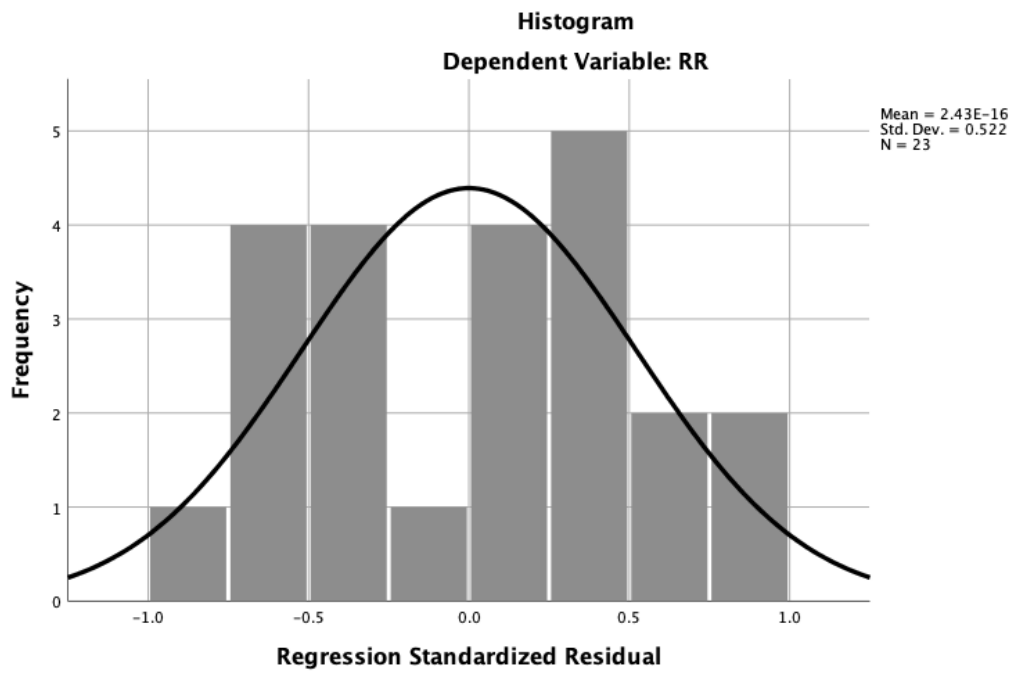
## APPENDIX A: TESTS OF OLS ASSUMPTIONS

To test auto-correlation, the Durbin-Watson  $d$  tests the null hypothesis that the residuals are not linearly auto-correlated. As a rule of thumb, values of  $1.5 < d < 2.5$  show that there is no auto-correlation in the data. However, the Durbin-Watson test only analyzes linear autocorrelation and only between direct neighbors. The Durbin-Watson for the model with Entered Employment Rate (EER) as the dependent variable was 2.452 and the Durbin-Watson with Retention Rate (RR) as the dependent variable was 2.393, revealing no auto-correlation in the data for either model.

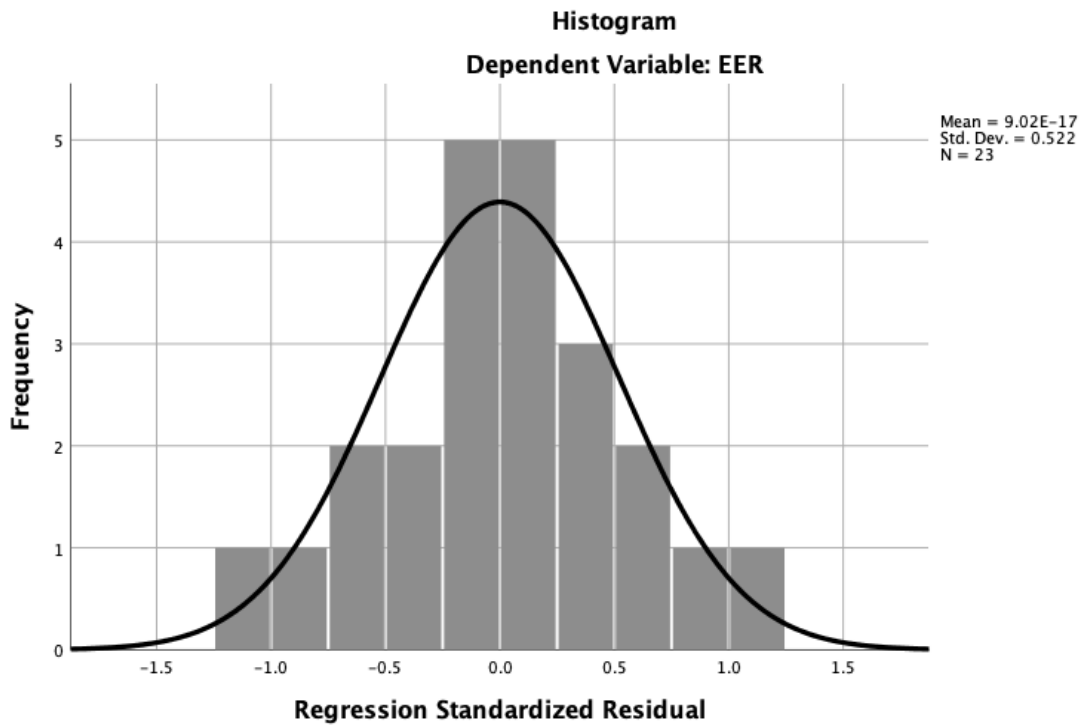
OLS regression assumes a continuous dependent variable. The dependent variables here are continuous. Continuous variables are numeric variables that have an infinite number of possible values between any two values. Predictor variables in OLS regression may be continuous, binary, or may be categorical variables transformed into sets of binary dummy variables. In this study, there were some independent variables that were not continuous. For example, the variables measuring the institutional construct included measures with yes or no answers and categorical answers (e.g., where a local board operates). These are binary variables and as such may be included in the regression model.

Linear regression analysis requires all variables not to be severely different from multivariate normal in distribution. This assumption can best be checked with a histogram. Figure A-1 and Figure A-2 reveal a roughly normal curve for the entered employment rate dependent variable and a non-normal curve for the retention rate dependent variable. The Figure A-3 histogram (RR) shows that though the curve is not the desired bell-shaped distribution, it does not show a marked departure from normality. For instance, high skew in the distribution might lead to using gamma regression rather than OLS, but this was not the case here.

**Figure A-1.** Histogram for the Dependent Variable Retention Rate (RR)

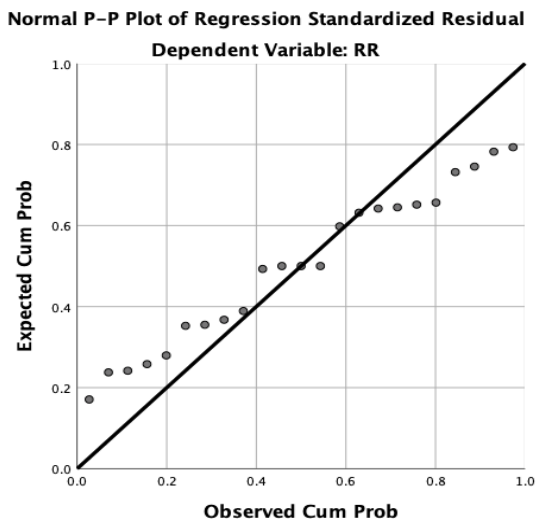


**Figure A-2.** Histogram for Dependent Variable Entered Employment Rate (EER)

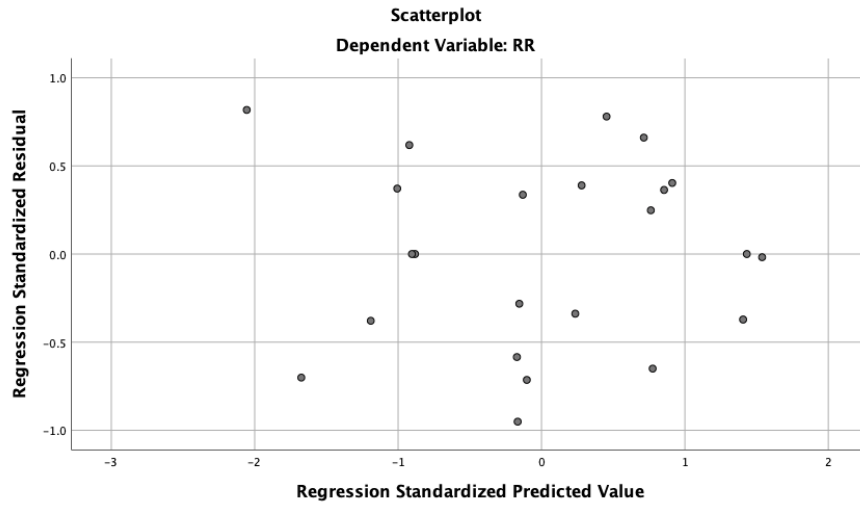


Another assumption of linear regression analysis is homoskedasticity. Figure A-3 and Figure A-5 show the Normal P-P of the standardized residuals for the dependent variable RR and EER respectively. One can assume normality if there are no drastic deviations. The scatter plot is good way to check whether the data are homoscedastic (meaning the residuals are equal across the regression line). In Figure A-4 and Figure A-5, the data looks scattered, there is not an obvious pattern, there are points equally distributed above and below zero on the X axis and to the left and right of zero on the Y axis. Figure A-6 shows a pattern of the model underestimating the observations having a higher EER value (underestimates lead to larger positive residuals, since residuals are observed minus predicted).

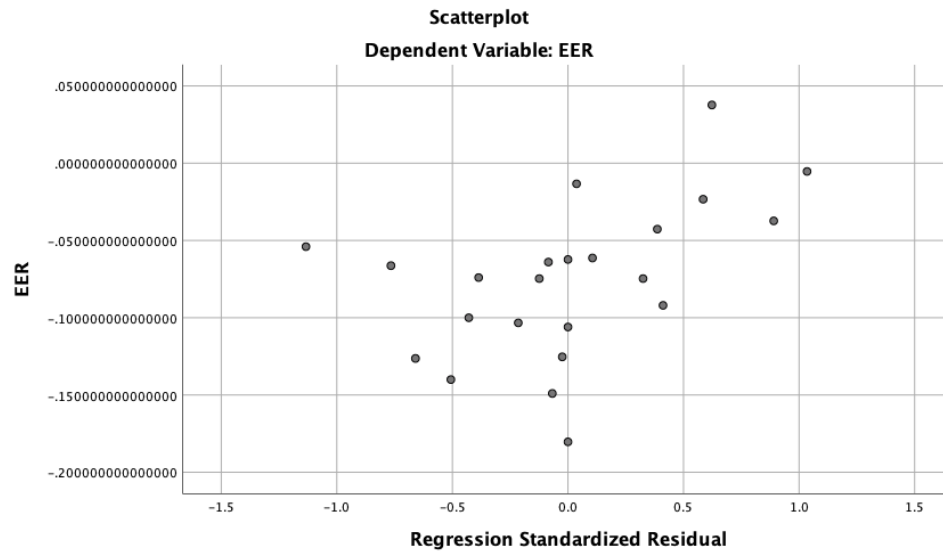
**Figure A-3.** Normal P-P for Dependent Variable Retention Rate (RR)



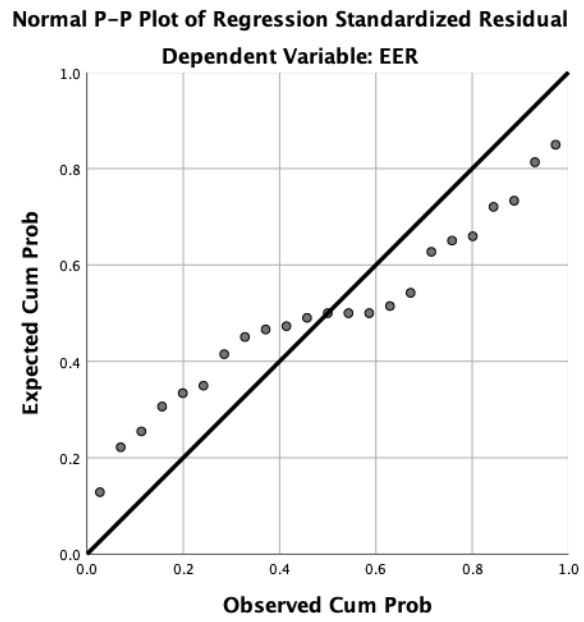
**Figure A-4.** *Scatterplot for DV RR*



**Figure A-5.** *Normal P-P for Dependent Variable Entered Employment Rate (EER)*



**Figure A-6.** *Scatterplot Dependent Variable EER*





## **APPENDIX B: LOCAL WORKFORCE DEVELOPMENT BOARD SURVEY**

### Background

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate or to stop participating at any time without penalty. The purpose of research studies is to gain a better understanding of a certain topic or issue. You are not guaranteed any personal benefits from being in a study. Research studies also may pose risks to those that participate. In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above.

What is the purpose of this study?

The purpose of this study is to generate theories regarding network performance. The goals of the proposed research are to 1) see how institutional and community factors are linked to local workforce development network performance and 2) explore how the differences in organizational culture, management, and collaboration distinguish workforce development boards that employ best practices from those that do not. The importance of this research is to advance our understanding of how to measure network performance as there is currently no universally accepted way to evaluate networks because they are difficult to compare.

Additionally, by learning about the organizational culture and management practices of both highly successful and under-performing local workforce development boards, this research will

help to glean best practices for performance. The online survey you are being asked to participate in will provide valuable information which will allow us to achieve the first goal of this study.

What will happen if you take part in the study?

If you agree to participate in this study, you will be asked take a short online survey which will ask you about where you work, how your board coordinates with other partner organizations within your community.

### Risks

The risks associated with participating in this research are minimal. The questions are not sensitive or personal in nature – they are only to collect information about the functioning of your workforce development board. Your participation in this study is voluntary. You may choose to not participate in any part of this study. There are no penalties to you if you choose not to participate in this study or if you choose to withdraw or discontinue your participation. Personal identities of the participants in this study will not be reported in any research reports. To our knowledge, this information is not sensitive or damaging.

### Benefits

We anticipate the understanding of how different workforce development boards coordinate in their local areas and how this is linked to their performance will be of strategic use to you, your partnerships, and your board. The results of this study will be made available to you.

### Confidentiality

The information in the study records will be kept confidential to the full extent allowed by law. Data will be stored securely in password protected computers or on secure servers at NCSU. Personal identities of the participants in this study will not be reported in any research reports.

What if you have questions about this study?

If you have questions at any time about the study or the procedures, you may contact the researcher, James Swiss at [swiss@ncsu.edu](mailto:swiss@ncsu.edu)

What if you have questions about your rights as a research participant?

If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Deb Paxton, Regulatory Compliance Administrator, Box 7514, NCSU Campus (919/515-4514).

Consent To Participate

By participating in this interview, you indicate that you have read and understand the above information. You may copy this form for your records. You agree to participate in this study with the understanding that you may choose not to participate or to stop participating at any time without penalty or loss of benefits to which you are otherwise entitled.

Agree (1)

Disagree (2)

I need your help! This survey is part of a research study designed to help us better understand how local workforce development boards engage with their local communities. Thank you for your help - I really appreciate it!!

1. Please list your full name and job title.
  2. What local workforce development board do you represent?
  3. How many board members have changed since 2013? Please give total number.
-

4. Has your local workforce development board chair changed over the last three years?

Yes (1)

No (2)

5. How long have you been Director of your local workforce development board?

Less than one year (1)

One to three years (2)

Three to five years (3)

Five to eight years (4)

Over eight years (5)

6. Where do you and your staff operate?

City office (1)

Community College campus (2)

Regional Council of Government office (3)

County office (4)

Operate as a Nonprofit (5) \_\_\_\_\_

NCWorks Career Center (6)

Indicate which number most represents your board. In general, my board:

	1	2	3	4	5	6	7	8	9	10	
	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 (10)	
7. Seeks low-risk projects, with normal and certain rates of return											Seeks high risk projects, with chances of very high returns
8. Thinks it is best to face new projects gradually, via careful and incremental behavior											Thinks it is best to take on bold, wide-ranging, opportunistic acts to achieve the board's objectives

Please indicate the extent to which you agree (on a 7 point scale of strongly agree to strongly disagree)

	Strongly agree (1)	Agree (2)	Some what agree (3)	Neither agree nor disagree (4)	Somew hat disagree (5)	Disagree (6)	Strongly disagree (7)
9.My board is primarily driven by business needs (1)							
10.Contact with my board members, network, and its representatives are mostly on a formal, pre-planned basis (2)							
11.Local politicians share the same workforce policy goals as my board (3)							
12. Almost everyone on my board as an equal say (4)							

<p>13. My board strongly prefers to structure our dealings with networked organizations through written agreements. (5)</p>							
<p>14. Trusted personal relationships are critical when decisions are made on my board (6)</p>							
<p>15. My board receives support from local political leadership in the form of funding, partnerships, or in-kind services (7)</p>							
<p>16. My board structure is made up of subcommittees that can make decisions on their own without needing majority consensus. (8)</p>							

17. Agreements on working relationships with other organizations primarily come about through informal means. (9)							
18. My board needs substantial local political support to be successful (10)							
19. When faced with major decisions, we are strongly guided by written rules. (11)							

20. What percentage of your time is spent on meeting with local political leaders?

- Zero (1)
- 25% (2)
- 50% (3)
- 75% (4)
- 100% (5)

21. Has your board ever experienced significant opposition to one of its existing or proposed activities from local political leaders in the past three years?

- Yes (1)
- No (2)

*Display This Question:*

*If Has your board ever experienced significant opposition to one of its existing or proposed activities? = Yes*

21a. If yes, please explain

Thank you for taking the time to fill out this survey! If you have any questions, please contact Annie Izod at [amizod@ncsu.edu](mailto:amizod@ncsu.edu).

## APPENDIX C: QUALITATIVE INTERVIEW PROTOCOL

### How a local workforce development board is structured for accountability:

1. Please explain how your Workforce Development Board is structured (list current committees and subcommittees). What are they tasked with?
2. What organizations are represented on the Board? What positions are open? Are there positions that seem to always be open?
3. To what extent does your strategic plan drive the actions of your local workforce development board?

### Funding and Decisionmaking:

4. How does your workforce development board determine funding priorities?

### Board Leadership and Stability:

5. Does your board have a thought leader? To what extent does your board follow the direction of the thought leader? *Thought leaders refer to individuals who are seen by the group as visionaries for the collaborative and help to orchestrate the collaborative toward the vision (e.g., Nowell and Harrison, 2010).*
6. Does your board have a champion? To what extent does your board follow the direction of the champion? *Champions refer to individuals who work in an active role promoting for the collaborative to external stakeholders, helping to secure resources and support for the work of the collaborative (e.g., Foster-Fishman et. al, 2001; Nowell and Harrison, 2010).*
7. Describe the role that your leadership has in determining the processes that your board uses to develop local strategic plans and oversee the local service delivery system.
8. What are the most important leadership traits that are needed to drive your LWDB to achieve performance goals?
9. Are most important leadership decisions done at the subcommittee or full board level? Why or why not?

### Description of the Local Workforce Development Board Mission Orientation:

10. What is more important to your board? Being a “Grant steward?” (probe: what is an effective structure, grant management, outcomes system), a “system builder” (probe: *building strategic partnerships, collaborative funding/design, greater systems approach*) or a “Regional Backbone?” (probe: *does your board position work that leverages the system towards solutions and community advancement?*)

### Partner Engagement Efforts



11. How does your board promote business retention and development within your community?
12. Think of a recent successful collaboration effort between your board and a business or training provider (or both). What was the goal of the collaboration? Why was it successful?
13. How does your board promote work with government and public sector? Can you describe some success stories?
14. How does your board promote work with nonprofits and collaborative entities?
15. How does your board encourage collaboration among employers?
16. How does your board engage education and training providers?
17. How does your board outreach to potential community stakeholders?
18. Why does your board decide to work with certain community stakeholders and not others? What are the deciding factors?

#### What Predicts Good Collaboration?

19. For high performing boards: To what do you attribute your success?
20. For low performing boards: Why do you think you have not reached your collaboration goals?

## APPENDIX D: EXPLANATION OF VARIABLES

Explanation of Variable	Variable Name
Workforce Development Board	WDB
Case Number	Case Number
DV1 - Entered employment rate	EER
DV2 - Retention Rate	RR
Urban = 1; Rural 0	urban
Board Member change since 2013 (4-6 = 1; 8-12 = 2; 14-18=3; 20-29=4)	memberchange
Chair change in past three years 0=no, 1 = yes	chairchange
Length of time Exec Director there - less than 1 year (1), 1-3 years (2), 3-5 years (3), 5-8 years (4) , or over 8 years (5)	directortime
Where LWDB Operates (1 = City, 2 = NCCCS, 3 = COG, 4 = County, 5 - NP, 6 = Career Center	operates
Nonprofit 1, others 0	nonprofit
Cogs = 1, others 0	cog
City/county= 1; others = 0	citycounty
E: In general, my board: - Seeks low-risk projects, with normal and certain rates of return: Seeks high risk projects, with chances of very high returns	risk
E: In general, my board: - Thinks it is best to face new projects gradually, via careful and incremental behavior: Thinks it is best to take on bold, wide-ranging, opportunistic acts to achieve the board's objectives	gradual
E: My board is primarily driven by business needs	bsnsneeds
E: My board structure is made up of subcommittees that can make decisions on their own without needing majority consensus.	subcomms
B: Contact with my board members, network, and its representatives are mostly on a formal, pre-planned basis	formal
B: My board strongly prefers to structure our dealings with networked organizations through written agreements.	written
C: Almost everyone on my board as an equal say	equal
C: Trusted personal relationships are critical when decisions are made on my board	trust

Appendix D. (continued).

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C: Agreements on working relationships with other organizations primarily come about through informal means.	informal
CC: Local politicians share the same workforce policy goals as my board	polpolicy
CC: My board receives support from local political leadership in the form of funding, partnerships, or in-kind services	polsupport
CC: My board needs substantial local political support to be successful	poldependent
CC: Has your board ever experienced significant opposition to one of its existing or proposed activities from local political leaders in the past three years? Y = 1, N = 0	polopposition
CC: What percentage of your time is spent on meeting with local political leaders? 0 = 0, .25 = 1, .5 = 2	polpcttime