Multisectoral Network Evolution: Entrepreneurial Coordination Strategy During Austere Exogenous Conditions

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Abstract

This article addresses the research question of whether and how a network coordination approach has a relationship to the evolution of a multisectoral (i.e., governmental, nonprofit, for-profit) organizational network during an economic recession. The question is addressed by providing a framework that integrates and extends Ebers’ (1997) concept of network development (i.e., interorganizational processes related to resource exchange, mutual expectations, and information use) with Herranz’s (2008) concept of multisectoral network coordination strategy (i.e., entrepreneurial, community, and bureaucratic orientations). The framework is illustrated with an analysis of a workforce development network in Boston that evolved in response to: 1) changed federal policies; and 2) changed labor market conditions—economic expansion between 1997 and 1999, and the economic recession between 2000 and 2002. This study finds a relationship between an entrepreneurial coordination strategy and the evolution of the network and its services. The article discusses the contributions and implications of the proposed framework for the research and practice of network-based governance under austere exogenous policy and economic conditions.
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Introduction

Many public managers around the world face the challenge of coordinating multisectoral networks of public, nonprofit, and for-profit organizations to address complex problems while at the same navigating through an economic recession and government budget reductions. To date, relatively little theoretical or empirical research focuses on this particular issue despite its urgency and importance. The purpose of this article is to extend the reach of public management scholarship around this topic by providing an empirically-illustrated conceptual framework for understanding the relationship between the processes of network evolution and multisectoral network coordination during a shift in exogenous conditions from resource munificence to austerity.

Several researchers argue that a public network (i.e., multi-organizational collaboration involving government agencies) provides a more agile arrangement for implementing public policy and delivering publicly-funded services than a state-centric government bureaucracy (6 et al. 2006; Agranoff 2007; Agranoff and McGuire 2003; Kickert et al. 1997; Mandell and Keast 2008; O’Toole et al. 2005; Provan and Milward 2001; Sullivan and Skelcher 2002). Scholarly interest in collaborative, multi-level, joined-up, public-private, cross-sector, and network-based governance partially arises from hypotheses that networked organizations may improve public service delivery by adaptively responding to changing legislative requirements, funding levels, customer service needs, and market conditions. From this perspective, networked and collaborative governance is seen as a way to address the problem of an emerging social and
economic landscape that is often simultaneously characterized by both uncertainty and accountability as well as by fragmentation and interdependence (Koppenjan and Klihn 2004). However, due to theoretical and methodological challenges, relatively few studies explicitly examine the processes of network change (Herranz 2009; Oerlemans et al. 2007; Knoben et al. 2006; Saz-Carranza and Vernis 2006; Sydow 2004). Even fewer studies account for network change in the specific context of changing exogenous conditions (Provan et al. 2009; Provan et al. 2004). Scarcer still are studies that specifically examine the processes of how a network evolves (i.e., develops over time) in response to an external environment that has shifted from conditions of relative abundance to conditions of relative austerity. One implication of this research gap is that there is as yet insufficient research to guide managers on how to strategically steer multisectoral networks to address public policy problems during an era of resource contraction.

This article addresses this research gap and, in doing so, makes several contributions to public network scholarship. This article provides an inductive, theoretically-derived, empirically-illustrated framework for better understanding the relationship between network evolution and coordination. Specifically, this article extends public management network scholarship by using Herranz’s (2008) idea of a multisectoral network (i.e., a network comprised of public, nonprofit, and for-profit organizations) as a conceptual bridge between Ebers’ (1997) research about the formation of business networks and the extant research on the development of public and mixed-sector networks. This article connects these two research streams by using Herranz’s (2008) notion of an entrepreneurial-oriented network strategy. Herranz (2008) found that an entrepreneurial strategy is one of several ways to coordinate a multisectoral network. This article
extends that research by explicitly examining how a mixed-sector network used an entrepreneurial strategy to coordinate and evolve its activities in relation to the shift from the economic expansion of 1997-1999 and the economic contraction of 2000-2002. This article focuses on an entrepreneurial strategy for several reasons related to the article’s purpose. First, entrepreneurial behavior is used to highlight fee-based income-generating activities in a market setting, thereby providing analytical attention to the relationship between network development and changed exogenous economic conditions. Second, entrepreneurial approaches in the public management of inter-agency collaboration have been found to yield opportunities for continuous improvement during changing conditions (Page 2003). Third, the entrepreneurial frame establishes a clearer conceptual connection between the fee-based processes of a multisectoral network and the business-based processes of a network comprised of for-profit firms. This idea provides a conceptual hook to the literature on network evolution that tends to be primarily based on studies of business networks.

Most of what is known about the evolution of networks emphasizes voluntary, market-based, inter-firm relationships among for-profit businesses. Ebers (1997) offers one of the most robust theoretically-derived frameworks about network formation. He explains that networks form through the processes of resource exchange, mutual expectations, and information flows within inter-organizational networking relationships. Yet, his framework, like most other business-focused network development studies, does not fully or explicitly account for the additional complexity of networks that also include organizations from the nonprofit and public sectors. According to Herranz (2008), multisectoral networks that include such organizations are also characterized by non-voluntary, legalistic, hierarchical, or political relationships. Because of
these additional sector-based differences, he posits that such multisectoral networks may be
coordinated by a passive-to-active range of strategic orientations that he identifies as community
(i.e., reactive facilitation), entrepreneurial (i.e., contingent coordination), and bureaucratic (i.e.,
hierarchically-based directive administration). These strategic orientations refer to the pattern of
decisions that influence a network’s formal and informal inter-organizational, inter-relationship
processes. Following Herranz (2008), an entrepreneurially-oriented multisectoral network is
partially distinguished by its emphasis on awareness and response to changing market
conditions. However, little research has explicitly focused on the role of an entrepreneurial
coordination strategy in the evolution of a multisectoral network, particularly during a
recessionary era.

The question that emerges is whether and how a network coordination approach has a
relationship to the evolution of a multisectoral network during such changed conditions. This
article addresses this question by providing a conceptual and methodological analysis that
integrates and extends both Ebers (1997) and Herranz (2008). This analysis finds and explains a
relationship between an entrepreneurial coordination strategy and the evolution of the network
and its services.

This article proceeds in four parts. The first section provides the study’s theoretical rationale by
reviewing the literature on network development and network coordination strategies. This
analysis situates the current study in extant network theory and provides a conceptual framework
built upon Ebers’ (1997) concept of network development, which is extended by Herranz’s
(2008) concept of an entrepreneurial strategy for network coordination. The next section
describes the study’s research setting and data collection methods. This section also provides the context of the networks’ policy and economic conditions during two distinct time periods encompassing changes in both federal policy (i.e., pre- and post-reforms in workforce development and welfare reform policies) and in economic conditions (i.e., the pre-recessionary period between 1997 to 1999 and the recessionary period between 2000 to 2002). In the third section, the article’s conceptual framework is empirically illustrated with a case analysis that focuses on an entrepreneurial strategy as one example of how a particular network coordination approach relates to network evolution during economic contraction. The case finds that an entrepreneurial-oriented approach to network coordination was associated with developing new fee-based services that helped address some of the labor market problems associated with the economic recession and helped provide additional earned income that supplemented shrinking government budgets. These findings are relevant to scholars and practitioners because they represent one of the few studies that specifically examined how a network evolved during a shift from munificent to austere economic conditions. Given the scarcity of such research, the findings have important implications for researchers and managers seeking a way to further conceptualize and empiricize the potential evolutionary effects of multisectoral network strategies during an economic recession. The final section discusses the findings and the implications of the study for research on networks as well as for the coordination of multisectoral networks.

**Theoretical Rationale**

Public networks are theorized to be more agile than traditional government bureaucracies in restructuring and reallocating resources and services in response to changing conditions (Rodríguez et al. 2007; Agranoff and McGuire 2001, 2003; Sullivan and Skelcher 2002; Milward
and Provan 2000; Bardach 1998; Kickert et al. 1997; O'Toole 1997). However, despite the increased research attention and practical use of public networks, and a growing body of research focusing on network change, network change itself remains relatively under-theorized and under-examined empirically (Provan et al. 2009; Herranz 2009; Goessling et al. 2007; Van Nuenen 2007; Powell et al. 2005; Isset and Provan 2005; Provan et al. 2004; Sullivan and Skelcher 2002).¹ Many studies of public networks tend to over-emphasize either static analysis or the structural elements of network change, such as dyadic ties and network density, and under-emphasize the processes of change (Herranz 2009; Oerlemans et al. 2007; Knoben et al. 2006; Saz-Carranza and Vernis 2006; Sydow 2004). Several network studies identify how some types of network ties change over time (Provan et al. 2009; Isset and Provan 2005; Provan et al. 2004; Provan et al. 2002). Other research finds that a particular stage in the life cycle of collaborative partnerships explains both the network’s governance mode as well as relationships between stakeholders (Sullivan and Skelcher 2002; Lowndes and Skelcher 1998; Skelcher et al. 1996).

There are network theorists who emphasize an institutionalist approach to understanding governance network dynamics (Sørensen and Torfing 2007; Gossling 2007). On the one hand, such an approach is understandable because institutionalism is fundamentally a set of theoretically-derived explanations for institutional change (North 1993; Etzioni 1993; Sjöstrand 1993; Williamson 1993; Powell and DiMaggio 1991). On the other hand, an institutionalist perspective offers relatively little managerial guidance because it tends to over-emphasize macro-level (i.e., societal) dynamics while under-emphasizing and under-specifying the meso-level inter-organizational change that is more directly relevant to network coordination.
At same time, while there is increasing research about network change, few studies explicitly examine the dynamics of network evolution. Although some organization research focuses on organizational evolution (Hannan and Freeman 1989; Baum and Singh 1994), less is known about the evolution of organizational networks. According to Lomi et al. (2008: 326):

While the need to study change in networks is now widely acknowledged (Doreian and Stokman 2003; Kilduff and Tsai 2003; Kim et al. 2006), studies of the network dynamics of inter-organizational relations have remained rare, with most of the received research based on cross-sectional samples (Ebers 1997) . . . it is probably fair to conclude that the development of an evolutionary approach to the study of inter-organizational networks has remained insufficiently articulated.

Of course, there is some evidence that public networks evolve. For example, Provan et al. (2004) examined a new public mental health network that formed in response to a changed institutional and funding environment and found that network collaboration increased both in the number of networked organizations and in the number of multiple interactions among organizations due to shared incentives to reduce costs, reinforced professional norms about integrating services across multiple providers, enhanced legitimacy of a network administrative organization, and the stability of the network administrative organization. In another study of network evolution, Provan et al. (2009) found that centrality—structural embeddedness—increased over four years in a multisectoral health and human services network in relation its trustworthiness, reputation, and influence among network members. However, little research has explicitly examined whether a multisectoral network coordination strategy has any relationship to network evolution during several years of resource contraction.

Network coordination is especially relevant in a public management context because, unlike networks comprised solely of for-profit or nonprofit organizations, networks involving
governmental entities must also address the particular legal, political, legislative, and budgetary accountability expectations accompanying public sector agencies. Therefore, network coordination is especially salient in cross-sector and multisectoral networks that include government agencies. Indeed, one of the challenges of the shift from government to governance is identifying the scope of influence that public managers have in coordinating the implementation of public policies enacted through networked collaborative and contracted relationships.

Although some collaborative networks are characterized by voluntaristic, deliberative, and joint-decision making processes (Mandell and Keast 2008; Hajer and Wagenaar 2003), there are several types of networks with different modes of network governance that range from lower to higher levels of managerial coordination and control (Herranz 2008; Provan and Kenis 2008; Kenis and Provan 2006). In these types of networks, public managers often have a role in setting policy agendas, steering implementation, monitoring performance, and enforcing accountability. The extent to which a manager’s coordination strategy may influence public network development is both a theoretical question and a practical problem. According to Pierre and Peters (2005, 1),

the dominant line of skirmish separates a network perspective on governance in which the role of the state is negligible, if not irrelevant, from several approaches to governance in which the state, although now less powerful and omnipotent compared to a few decades ago, still dominates governance by controlling critical resources.

From a public management perspective, there is still a need to better understand whether and how networks may be coordinated to accomplish public policy objectives, such as responding to changed economic conditions.
Yet, several scholars suggest that relatively little is known about whether strategic processes are related to network development (Van Nuenen 2007; Goessling et al. 2007; Knoben, et al. 2006; Kim et al. 2006; Isset and Provan, 2005; Powell et al. 2005). The few studies that offer longitudinal analysis of network strategies focus on business networks—such as the long-term role of legitimacy in network evolution (Human and Provan 2000), or the co-evolutionary processes of strategy adaptation related to a network’s morphology and its environment (Koza and Lewin 1998; 1999). Most of this research focuses on “for-profit (economically oriented) inter-firm alliances where each of the participating firms is an independent agent” (Koza and Lewin 1998, 256). Of course, the findings of studies that explicitly emphasize the independence of firms in alliances may not necessarily be fully applicable to multisectoral networks. This is because, in contrast to business firms, government and nonprofit organizations in multisectoral networks are also characterized by property distribution constraints as well as by distinctively different legal authority and political relationships that distinguish them from business firms (Hansmann 1986; Frumkin 2002; Weisbrod 1986). Consequently, there is a need for more research about the evolution of networks that also include public and nonprofit organizations.

However, research on public, cross-sector, and multisectoral network development remains relatively under-developed. Therefore, this article first turns to the more extensive literature on network formation among business firms for conceptual grounding (Koka et al. 2006; Kim et al. 2006; Lawrence et al. 2002; Ebers 1997). Ebers (1997) provides one of the few conceptual frameworks for organizational network formation that is based upon an extensive review of studies in the fields of economics, sociology, organization studies, information systems, and business strategy. He distilled the predominant findings of research on business networks from these different analytical perspectives to identify three processes that are the most important to
understanding network development: resource exchange, mutual expectations, and information processes. Partly due to Ebers’ synthetic approach to integrating empirically-based studies from different disciplinary perspectives, his proposed framework offers a coherent representation of network formation that accounts for the particularity of inter-organizational relationships while remaining conceptually consistent with recent advances in the multi-disciplinary “new science of networks” (Newman et al. 2006). Moreover, as previously noted by Lomi et al. (2008), Ebers remains one of the few studies of the network dynamics of inter-organizational relations.

Consequently, this article employs Ebers’ (1997) concept that network development occurs through the processes of resource exchange, mutual expectations, and information processes within inter-organizational networking relationships. Rather than focusing on the structural attributes of a network, he emphasizes the process characteristics of the inter-organizational relationships—which then enables them to be re-conceptualized as elements of a strategic approach to network coordination. He identifies three inter-organizational processes that characterize network formation: resource flows, information flows, and flows of mutual expectations. According to Ebers, resource and information exchange are concepts used in organization theory (e.g., resource dependency) to classically analyze the problem of coordination and its solutions. Resource interdependence through networking gives firms competitive advantage because they “gain access to desired resources and capabilities that are complementary to their own; they can thus in different ways enhance their abilities, share risks, gain market power, or realize economies of scale and scope” Ebers (1997, 25). Informational intermediation through networking can “reduce communication costs, diminish uncertainties, and facilitate better co-ordination for network members” (Ebers 1997, 31). Ebers (1997, 17)
argues that mutual expectations is a distinctively third dimension because “people-related expectations such as opportunism, trust, and fairness figure prominently” in the literature on inter-organizational networking. According to Ebers, flows of mutual expectations influence actors’ perceptions of the opportunities and risks of co-operation and shape the formation of inter-organizational networks. In addition to the three types of processes he identifies, he notes that organizational literature also identifies two governance factors that differentiate institutional-level arrangements related to network formation: distribution of property rights (e.g., formal contractual distribution) and coordination mechanisms (e.g., non-formal rules of behavior). However, in situating his concept within the larger research stream of business networks, Ebers does not address the non-economic governance attributes of public and nonprofit organizations. Consequently, his framework does not account for whether network development differs depending on its public, nonprofit, or for-profit composition or orientation. To build-upon and extend Ebers’ framework, this article now turns to and integrates Herranz’s (2008) framework for multisectoral network coordination strategy.

Herranz’s framework derives from the conceptual argument that the differences among governmental, nonprofit, and for-profit organizations are also archetypical representations of three basic mechanisms of organizational coordination: hierarchies, clans, and markets (Ouchi 1995; Wilkins and Ouchi 1983; Ouchi 1980).² Herranz suggests that there is wide variability in the behavior of nonprofit, for-profit, and public organizations, with some of each type behaving entrepreneurially, others behaving bureaucratically, and others behaving like familial clans. He argues that because organizational behavior boundaries between sectors are increasingly
blurred—especially in multisectoral public networks—that a sector-based framework provides a way to conceptualize and categorize interorganizational behavior in a multisectoral network.

Herranz (2008) conducted a quasi-natural experiment of three multisectoral workforce development networks in Boston that shared similar characteristics except that they primarily varied by having distinct coordination approaches. According to Herranz, these coordination mechanisms manifest themselves as strategic coordination processes—bureaucratic, entrepreneurial, and community—in multisectoral networks comprised of public, nonprofit, and for-profit organizations. These strategic approaches to network coordination range along an active-to-passive managerial continuum. At one of the spectrum, a bureaucratically-oriented strategy emphasizes directive and hierarchical processes in inter-organizational relationships. In the middle of the spectrum, an entrepreneurially-oriented strategy emphasizes contingently quid pro quo and profit-focused processes in inter-organizational relationships. At the other end of the spectrum, a community-oriented strategy emphasizes reciprocal trust and identity-based processes in inter-organizational relationships.

There are several reasons why this article focuses on an entrepreneurial strategy rather than another approach to network coordination. First, examining an entrepreneurial-oriented network strategy establishes clearer conceptual link between Ebers’ (1997) network formation research that is based on for-profit firms and Herranz’s (2008) finding that an entrepreneurial strategy is one way to coordinate a multisectoral network. Second, this article examines entrepreneurial behavior as a way to highlight fee-based income-generating activities in a market setting, thereby providing analytical attention to the relationship between network development and changed
exogenous economic conditions. Third, although this article emphasizes the market-based attributes of entrepreneurial activity, it also generally relates to a broader interpretation of entrepreneurial strategies for managing interagency collaboration that focuses on innovation and continuous improvement (Page 2003). According to Page (2003), one way to characterize and understand the development of changing coordination and service-delivery approaches in collaborative contexts is to focus upon the concept of entrepreneurial strategies for managing interagency collaboration. However, this article neither explicitly examines innovation, per se, nor situates itself specifically within public innovation scholarship.³

Accordingly, this study’s definition of entrepreneurial network coordinating processes is primarily analogous to market-based firms that are characterized by high degrees of quid pro quo contracts and agreements, strategic data analysis, and profit-based fee-based services (Herranz 2008). This article uses the formal (e.g., written) and informal (e.g., verbal) characteristics of inter-organizational relationships as way to distinguish an entrepreneurial network coordination strategy.⁴ From this perspective, an entrepreneurially-coordinated network tends to have a mix of formal and informal processes. This approach is used to further refine Ebers’ (1997) framework by specifying that each of the dimensions of network development may be analyzed according to a relative mix of formal and an informal mechanisms that characterize the network coordination strategy.

Consequently, integrating Herranz (2008) with Ebers (1997) provides a conceptual bridge that extends Ebers’ concept of network development to include public and nonprofit organizations in multisectoral networks. While some approaches emphasize counts, types, and centrality of inter-
organizational ties as a means for assessing network change, this article focuses on changes in the processes of inter-organizational interaction. This focus on process also contributes to the literature on network governance by examining the relationship between the strategy and development of a network administrative organization (NAO). Unlike a decentralized network of independent firms that is self-organizing, or a centralized network that is managed by a pre-existing single organization, a network formed around a new entity—network administrative organization (NAO)—is considered by network researchers to be especially important in networks with many small organizations because they often lack the resources to form or manage the network (Provan and Kenis 2008; Provan et al. 2004; Human and Provan 2000; Provan and Milward 1995). Despite this importance, few studies examine the role of strategy in NAO development. A NAO is itself an especially interesting and relevant subject for studying network strategies because—as a network hub—it serves as a focal lens onto the interconnecting relationships and inter-organizational processes that are otherwise challenging to collect and analyze for a whole network. Better understanding the strategic orientation of a NAO therefore provides a window for analyzing coordination strategies for full networks. Toward this purpose, this article provides a conceptual framework for understanding how a NAO’s entrepreneurial coordination strategy relates to network development. Examining changes in inter-organizational processes provides an opportunity to study whether network coordination strategy is related to network evolution. Although the terms evolution and development are used interchangeably in the following sections, the focus of this study is on evolution. The next sections present an illustrative research subject, describe the qualitative methods used in data collection, specify the key dimensions and variables under examination, identify the exogenous conditions and time periods of the investigation, and provide an analysis and discussion.
Research Setting

This section provides an illustrative case study analysis of a multisectoral workforce development network in Boston, Massachusetts. The network is comprised of a mix of approximately 40 government, nonprofit, and for-profit agencies working together towards a shared goal of providing workforce development and labor matching services. This network is centered on a One-Stop Career Center. The One-Stop Career Center network makes an appropriate research subject because it was created and primarily funded by government as a centerpiece of federal 1998 Workforce Investment Act (WIA) legislation that mandated the reform of regional workforce systems across the United States. One-Stops offer basic services, targeted customized services, and fee-based services to both jobseekers and to business employers as centralized points of access to federal, state, and local employment programs as well as function as the primary hubs for coordinating a mix of public, nonprofit, and for-profit organizations involved in local workforce development. In Boston, The Work Place (TWP) is a One-Stop Career Center that serves as the functional network administrative organization (NAO) for its network. In this article’s subsequent analysis, the terms NAO and hub refer to the One-Stop Career Center and the network refers to the larger set of organizations related formally and informally in the NAO network’s workforce development activities. For example, TWP NAO refers to the One-Stop Career Center, and TWP network refers to the governmental, nonprofit, and for-profit organizations that formally and informally comprise the network.

The TWP NAO was operated through a partnership between the Economic Development Investment Corporation (EDIC), a quasi-governmental agency promoting economic development, and one of Boston’s most entrepreneurial nonprofits, Jewish Vocational Services
(JVS). The TWP network’s entrepreneurially-oriented coordination approach was largely derived from the institutional perspectives of the principal co-operators. Although legally structured to meet the Internal Revenue Service classification of a 501 c 3 nonprofit organization, The WorkPlace NAO was created explicitly to function as a market-focused, revenue-generating multisectoral network entity. According to Herranz (2008), the co-operators’ market-focus contributed to an entrepreneurially-oriented network coordination approach within TWP network. The network’s organizational members were connected to one another through a variety of formal (e.g., contracts), informal (e.g., collaborative association), and financially contingent (e.g., fee-based) relationships.

Methodology

To develop the case analysis, qualitative data were collected using two methods (Miles and Huberman 1994; Yin 1994). One method included semi-structured interviews—identified by “snowball sampling”—that lasted between one and two-and-one-half hours with the managers and staff of One-Stops and networked organizations. These data were collected via 50 semi-structured interviews during 2000 and 2002. Organizational representatives were asked questions about their organization’s relationships with governmental, nonprofit, and for-profit organizations regarding formal (e.g., written contracts) and informal (e.g. verbal agreements) relationships, historical interactions (e.g., frequency and extent of inter-organizational activities during both the economic expansion and the recession), and information flows and communication (e.g., types and content of exchanges involving verbal, written, and digital—spreadsheets, databases—information). A second method was a textual analysis of annual organizational documentation collected between 1998 and 2002. The documentation included strategic plans, program budgets, customer satisfaction surveys, employer focus group reports,
and annual reports to a regional oversight committee. These data were categorized and coded—by hand—in terms of resources, mutual expectations, and information exchange. Collected data were subsequently manually organized into the same categories—resources, mutual expectations, and information exchange—for each time period and then comparatively analyzed in order to conduct a longitudinal analysis of the three dimensions of network evolution.

For the longitudinal analysis, the data were categorized into two study periods: 1997 to 1999 and 2000 to 2002. These time periods were selected because they were each characterized by distinct periods of federal policy activity and economic conditions. The first three-year study period—encompassing the years 1997, 1998, and 1999—was a period of resource munificence characterized by additional government resources associated with implementation of federal welfare reform policy and the record expansion of the US economy in the late 1990s. The second period of 2000, 2001, and 2002 was characterized as an era of relative austerity due to reduced government resources associated with post-welfare reform as well as by the economic contraction of the early 2000s. Consequently, considering the policy and economic changes during the study period, this study examined network development between two distinct eras of exogenous policy and economic conditions.

In addition to organizing the data into two distinct time periods, this study identified several processes associated with network evolution. Following Ebers (1997), the three keys of network development processes examined were resource exchange, mutual expectations, and information flows. In this study, each of these dimensions is further distinguished as comprised of formal (e.g., written) and informal (i.e., verbal) characteristics that are illustrated with qualitative data.
As previously noted, studying the mix of formal and informal relationships to indicate how networks evolve over time is an established approach by network researchers (Isett and Provan 2005; Gulati 1995; Uzzi 1997). In order to longitudinally analyze formal and informal characteristics for each process (i.e., resource exchange, mutual expectations, and information flows), this study identified qualitatively-derived illustrative examples that were selected by combining analytical and interpretative approaches in order to identify patterns in the field data for the purpose of generating case stories (Lester and Piore 2004; Golden-Biddle and Locke 1997). Each time period consisted of three-year patterns for the network that were identified by combining data from: 1) interviews with approximately a dozen network members; 2) annual NAO documentation (i.e., strategic plans, business plans, service and partnership reports; and 3) participant observations at NAO and network events (i.e., job fairs, workshops, site visits). The network case was developed by collecting qualitative data on a network that consisted of at least 40 organizations. The Boston network was comprised of between 40 to more than 100 organizations—including public, nonprofit, and for-profit organizations during the study periods.

To examine the network’s evolution, this study analyzes differences in the patterns of formal and informal characteristics of each dimension. By providing a coherent synthesis of these patterns, this methodological approach provides a conceptual framework for helping to understand how network coordination strategy may be related to network evolution (Golden-Biddle and Locke 1997). The following case study investigates the relationship between a network’s strategy and its evolution during a period of shrinking exogenous resources.

**Case: The Work Place Network**

*Resource Exchange Evolution*
Since its inception, the TWP’s NAO made a strategic choice to adopt an entrepreneurial approach in its relationships with public, nonprofit, and for-profit organizations as a means to accomplish its mission of delivering services and reforming the workforce development system. Towards this outcome, NAO network developed a diversified portfolio of both governmental and fee-based resource revenue streams as a way to relate to its policy and market environments. In this context, the TWP NAO emphasized formal resource exchange (e.g., written agreements and contracts for fee-based services) over informal resource exchange (e.g., in-kind transactions involving staff, space, and equipment). As an example of its entrepreneurial orientation during the first study period, TWP’s NAO developed a financially successful line of formal business products involving the development and coordination of customized job fairs for specific industry networks such as finance, hospitality, transportation (e.g., Metropolitan Boston Transit Authority), and airport businesses. During the height of the economic boom in 1999, TWP’s entrepreneurialism was evidenced in its launch of “Corporate Partnerships,” a $200 yearly fee-based membership program that entitled employer members to discounts and special TWP services. The Corporate Partnership service was partially inspired by the popularity among businesses of developing strategic partnerships, alliances, and networks, and by TWP’s market research showing that a corporate partnership service would also help it develop its relationships with business firms. As noted by TWP (The Work Place 2000, 17),

The idea of Corporate Partnership is widely written about and seems like a reasonable way to parlay our knowledge of the labor market and our labor exchange function into fee-based services. . . . We could learn to act more like a business by actually working more closely with them. In turn, the employer could take advantage of our connections to the community and reach different labor pools to fulfill their hiring needs.

The TWP network continued to adopt entrepreneurial strategies even as the policy and economic environment changed. During the economic downturn of 2000 to 2002, the TWP network
experienced a reduction in its welfare reform contracts and in its formal contracts with business for employment services. In response to these changing conditions, the TWP NAO restructured its employment services from focusing on helping companies find and hire workers to helping companies to lay-off workers as part of corporate downsizing activities. For example, the TWP NAO created a new line of business that offered new fee-based transition counseling for laid-off employees. Finding ways to sell services to companies that were shrinking their workforce was a strategic decision by the TWP NAO that reflected its entrepreneurial approach to focusing on formal fee-based resource exchange as way to evolve during changing economic conditions.

**Mutual Expectations Evolution**

The TWP NAO’s business-like orientation similarly characterized the mutual expectations of inter-organizational relationships within the TWP network. This approach was evidenced by an emphasis on formal quid pro quo expectations related to financial transactions rather than trust-based expectations. This focus on formalized expectations included inter-organizational relationships with government agencies. The relationship between the Department of Transitional Assistance (i.e., welfare agency) and the TWP NAO provides an example of this phenomenon. According to the TWP NAO Director Tom Ford (personal interview, May 11, 2000), the Department of Transitional Assistance (i.e., welfare agency) was a “payer” rather than a business partner or customer with whom TWP’s NAO had a transactional or exchange relationship: “I think about the welfare department as a third-party payer not a partner, and we never sit down to talk. Terms like $3,300 per placement are negotiated at the state level and given to us as ‘take it or leave it,’ like government is the decision-maker telling the client what to do.” For the TWP NAO and its network partners, formal rather than informal quid pro quo exchanges were the basis for inter-organizational mutual expectations. For example, TWP’s
NAO’s primary strategic response to the implementation of federal welfare reform was to strengthen and build relationships with nonprofit agencies with specialized expertise. During the first study period, TWP’s NAO worked closely with nonprofit partners to develop new and enhanced services for its jobseeker customers, including youth, limited English speakers, welfare recipients, college graduates, and dislocated workers with advanced degrees and skills. However, as a result of the weakened labor market conditions in 2001 and 2002, TWP’s NAO modified its services and connections to nonprofits as well as employers. For example, rather than emphasizing fee-based services that employers were purchasing less frequently, it invested in creating, maintaining, and cultivating informal relationships with employers. While continuing to emphasize formal (i.e., fee-based agreements and agreements) during the economic downturn, the TWP NAO also increased its attention to informal mutual expectations as a way to balance formal and informal mutual expectations with businesses as a strategy to yield potential increased fee-based revenue in the future. According to TWP’s NAO (The Work Place, 2002, 5),

This past year, the Business Development Team has focused considerable time and effort on building and growing relationships with employers. . . .The work being done with employers has been somewhat different than in past years. With the downturn in the economy, fee services in general decreased in demand. The Business Development Team has taken advantage of this lull by being more strategic and creative in terms of building relationships with employers.

During this time, TWP’s NAO built informal relationships with employers by organizing breakfasts for employers as an “effective way to network and keep relationships going through the slow economic time” (The Work Place, 2002, 5). In addition to cultivating its informal ties with employers, TWP’s NAO sought to generate new formal fee-based services appropriate to the changing economic situation. For example, after conducting employer focus groups and forecasting increased layoffs, TWP’s NAO developed a product line of outplacement services for
medium-sized businesses. TWP also offered outplacement services to nonprofit organizations after assessing that government cut-backs were reducing social service agency staff.

**Information Exchange Evolution**

To offer multiple lines of service that customers would use and purchase, TWP’s NAO focused early in its operations on developing formalized processes that gathered and analyzed information. To function as a customer-driven organization, TWP’s NAO determined that it required extensive information about customer behavior, service utilization, and satisfaction. During the economic contraction between 2000 to 2002, TWP’s NAO increased its development and use of formal data collection and analysis rather than rely on informal conversational or anecdotal information. TWP’s NAO used formal mechanisms such as evaluations, transactional surveys, telephone interviews, semi-annual focus groups of jobseekers and employers, exit surveys, and its internal information management systems as feedback mechanisms for improving and developing services—especially those purchased by employers and jobseekers.

According to TWP (The Work Place, 2001, 6),

> Strategic planning is critical to the success of any business, but it is especially important to our network, which operates in an environment where political and funding priorities, labor market dynamics, and economic trends can fluctuate quickly and without notice. We must be able to recognize these environmental factors, understand both the opportunities they offer and the threats they impose, and respond to them in ways that take the fullest advantage of the opportunities while minimizing the threats. To do this, we must practice strategic planning and strategic thinking, not as annual or biannual events, but as a way of conducting our business on an ongoing basis.

One example of TWP’s NAO strategic decision to invest in data collection was its contract with a private company to make follow-up phone calls to those jobseekers who stopped using services from its network members. For the TWP NAO, the telephone survey was effective in documenting successful job placements, but expensive as each completed call cost $16. Despite the expense, TWP’s NAO determined that the quarterly placement data and customer service
feedback information was so worthwhile that it increased its budget for the calls from $10,000 during 1999 to more than $20,000 in the first year of the recession. In the context of this study, this demonstrates how the TWP NAO invested financially and programmatically in customer service data collection and analysis as a way to manage formalized information flow.

**Discussion**

Overall, in its resource exchange, mutual expectations, and information processing, the TWP NOA was an entrepreneurially-coordinated network characterized by market-focused assessments, strategies and tactics including data-rich analysis, applied technologies, fee-based services, and an employer-as-customer priority to plan for and to respond to changing labor market conditions. This approach enabled the network to adapt to economic shifts. The TWP NAO’s focus on employers allowed it to provide new market-based services, and this focus enabled it to be more adaptive to changed economic conditions. In the tight labor market, TWP’s NAO helped connect employers to “untapped” labor pools such as welfare recipients, as well to much-in-demand high-skilled workers. In the weakened labor market, TWP’s NAO offered downsizing and outplacement services to both businesses and nonprofits. While information exchange, resource exchange, and mutual expectations each contribute individually to network development, it is the recursive interactivity of these three dimensions together that help explain the network’s evolution.

The preceding analysis of the TWP network provides an illustrative empirical case that extends Ebers’ (1997) concept that network development has three key dimensions—inter-organizational resource exchange, mutual expectations, and information exchange—with Herranz’s (2008) concept of an entrepreneurial-oriented multisectoral network coordination strategy. The central
argument of this article is that combining these two perspectives provides a way to conceptualize how a network coordination strategy may be used to influence the inter-organizational processes of multisectoral network evolution. In doing so, this article extends Ebers’ (1997) framework to public management scholarship in four ways.

First, this article suggests that the processes of network formation identified by Ebers (1997) may also be applied to multisectoral networks. In his book, Ebers described the processes of inter-organizational development among business firms. He did not address the issue of whether network development was different if the network included organizations with non-market attributes such as nonprofits (e.g., nondistribution constraint) or government (e.g., coercive authority). Extending Ebers’ notion to multisectoral networks contributes to public management scholarship because it provides a bridging concept—itself theoretically derived from multiple disciplines—that helps address the under-theorized issue of the process dynamics associated with public networks evolving in response to changing exogenous conditions. In this way, this article contributes theoretically to the growing literature on change in public networks (Provan et al. 2009; Herranz 2009; Sørensen and Torfing 2007; Gossling 2007; Isset and Provan 2005; Provan et al. 2004; Sullivan and Skelcher 2002), and particularly contributes to emerging research on public network process dynamics (Herranz 2009; 6 et al. 2006; Saz-Carranza and Vernis 2006).

A second way that this article extends Ebers is by focusing attention on the role of coordination strategy in network evolution. In his formulation, Ebers did not address whether and how network evolution may be related to an explicit strategy to coordinate network participants. This may be explained by several theoretical perspectives. One argument would be that the invisible
hand of the market is the primary coordination mechanism for firms in networks. Another argument is that a network is a distinct form of organization as compared to a market or hierarchy, and therefore self-organizing dynamics explain network evolution. Indeed, this view is emphasized in research examining the collaborative self-organizing processes of public network development (Mandell and Keast 2008; Hajer and Wagenaar 2003). However, public networks are also characterized by non-market governmental oversight and accountability relationships (e.g., legal, political, hierarchical) that often require implicitly managing within complex networks (Agranoff 2007; Kickert et al. 1997) or explicitly coordinating networks (Herranz 2008; Provan and Kenis 2008; Kenis and Provan 2006). This article suggests that under specific conditions (i.e., diminished resources), an explicit coordination approach (i.e., entrepreneurial strategy) focused upon key processes (i.e., resource exchange, mutual expectations, and information use) has a relationship to a network’s evolution.

A third extension of Ebers’ (1997) framework relates to the relation between exogenous conditions and network evolution. Ebers did not fully account for whether and how changes in the external resource environment would influence network evolution. In contrast, several governance network theorists provide an institutional framework for network change that tends to over-emphasize meta-level explanations while at the same time under-emphasizing the meso- and micro-level mechanisms of network change in the context of changing conditions (Sørensen and Torfing 2007; Gossling 2007; Sjöstrand 1993). At the same time, extant studies of public networks that change in response to institutional pressures tend to under-emphasize network coordination processes as well as the interaction of the network’s changes in relation to different external conditions (Provan et al. 2004; Provan et al. 2009). This article contributes to this field
of research by using Ebers (1997) to help identify several specific inter-organizational processes that explain network evolution in relation to a change from resource munificence to austerity in both economic and public policy conditions.

A fourth contribution of this article is that it adds to the literature on network coordination and control (Provan and Kenis 2008; Herranz 2008). Specifically, it contributes to scholarship about the governance of NAOs (Provan et al. 2009; Provan, Isett, and Milward 2004; Human and Provan 2000; Provan and Milward 1995) by providing a way to conceptualize how an NAO coordination strategy contributes to network development. Better understanding network coordination is especially relevant to NAO-type networks because their functions and operations often explicitly depend on an administrative entity formed to develop and steer network relations. Consequently, integrating Ebers’ (1997) and Herranz’s (2008) concepts offers a way to clarify and categorize the relationship between a NAO’s coordinative and evolutionary processes.

As evidenced by the case example, the TWP network and its NAO used an entrepreneurial-oriented coordination strategy to evolve in response to shrinking governmental funds and weakening labor market demand. This finding of an explicit use of an entrepreneurial strategy for network coordination and evolution is surprising from the perspective of some scholars and practitioners who characterize networks as self-organizing collaborations that function primarily via trust-based relationships and processes. In contrast to studies focusing on the hands-off facilitative aspects of network collaboration that downplay managerial action, this article
highlights the role of a hands-on strategic approach to network coordination. In this case, the TWP network made strategic decisions to use entrepreneurial processes as a way to evolve.

Although this article’s primary purpose is contributing to theory-building around public and multisectoral networks, there are several strategic implications for professional managers regarding their potential coordinative roles in the governance of networks over time. First of all, a multisectoral network does not necessarily imply a reduced or absent role for public management. Some multisectoral networks may provide or even require more involvement by public managers in developing and implementing strategies that are responsive to changing policy and economic settings. The scarcity of longitudinal network studies—especially those that specifically focus on recessionary periods—means that there is little guidance about the extent to which public managers could or should strategically coordinate networks. The case examined in this study provides one example of how an entrepreneurially-oriented approach to network coordination was associated with how the network’s service delivery evolved in response to declining resources.

In the case of the TWP network, developing new fee-based services in response to the recession was a way to achieve its stated policy objective of improving the functioning of the labor market. In traditional governmental bureaucratic settings, a shrinking budget usually means a reduction in public services. Likewise, in conventional government-contracted or privatized situations where pay-points and cost reimbursements tend to be proscribed, a smaller budget often leads to fewer services. In contrast, the TWP case suggests that an entrepreneurially-oriented coordination strategy may provide public managers with opportunities to use network processes
(i.e., resource exchange, mutual expectations, and information use) to incentivize, innovate, and implement re-formed services that respond to changing market conditions.

Secondly, a multisectoral network may yield some particular advantages regarding acquiring resources to serve the public benefit during economic contraction. For the most part, practitioner interest in collaborative, multi-level, joined-up, public-private, and network-based governance is partially due to the presumption that they may provide better services than a government bureaucracy. Of course, there is also a related debate about whether government contracting, the hollowing state, and the sordid guises of privatization pose risks to democratic accountability and established government institutions. However, there has been less attention to whether multisectoral networks may present an opportunity to diversify resource acquisition to serve the public interest. The TWP network’s entrepreneurial-oriented strategy illustrates one way that fee-based earned-income streams may be developed—even during an economic recession—to supplement and complement diminishing government funding.

A third strategic implication is that a multisectoral network may be coordinated so that it has an integrated response to changing legislative requirements, funding levels, customer service needs, and market conditions. Compared to a single agency or two-party partnership, a multisectoral network may provide a way to evolve and adapt to changes because it has the potential to represent and leverage a diverse set of public, nonprofit, and for-profit interests.

Of course, there are limitations to this study. To begin with, the specific policy arena and broader institutional context of Boston’s workforce development networks constrain the extent to which
the findings may be generalized to other network settings. The study is also limited in that it is based on a particular form of a NAO-type network, and therefore its implications may not necessarily apply to networks without a coordinative entity, such as those that are predominantly characterized by voluntary collaboration. This study’s emphasis on market-oriented entrepreneurial activities may also not necessarily be relevant to networks comprised of only government agencies, or public and nonprofit networks with few fee-based activities. Also, more research is needed to identify the specific processes and mechanisms that influence how a network diagnoses, responds, and adapts to changing external conditions in its operating environment, as well as how these processes interact with the network’s endogenous dynamics (Herranz 2009). Another limitation is that the study did not examine whether changes in inter-organizational ties or levels of adaptation are associated with the performance of the network. More empirical research is required in order to understand whether and how different forms of network governance may be related to a network’s adaptation to the predictability and rates of change in environmental conditions (Duit and Galaz 2008).

Nevertheless, this article provides one conceptual and empirical step towards developing theory about the adaptive capacity of network-based governance. Clearly, more research is required to understand the multiple and complex process change dynamics of networks used for implementing public policies and delivering publicly-funded services. The current state of limited research attention to network evolution poses a problem for policy makers and managers who have, as of yet, few conceptual frameworks for assessing the possible implications of network coordination strategies and network evolution. Better understanding the parameters and conditions of network evolution would enable better strategic choices regarding the institutional
design, governance, operation, and accountability implications of networked services during a recessionary era. And, in the context of the argument that a network is intrinsically agile and adaptive and yields extrinsic benefits, this article suggests that we need clearer and more elaborated conceptual and methodological approaches in order to understand the implications of network strategies and evolutionary patterns for addressing long-term systemic social and economic challenges.

References
Charter Review Report, Fiscal Year 2002, JobNet Progress Report, Site Visit & Strategic Plan Summary, Boston, MA.


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**Endnotes**

1 For example, despite the proliferation of studies about disaster management, research on network responses to disasters and crisis is relatively limited in public sector management (Moynihan, 2008a, 2008b).

2 Researchers have identified a variety of governing coordinating models that include hierarchies/bureaucracies, markets, and networks (Considine and Lewis 2003; Thompson et al. 1991; Cropper et al. 2008), as well as a mixture of hybrid governance models (Beyerlein et al. 2004; Considine 2001; Keast et al. 2006; Smith et al. 2006.)

3 For analysis of the relationship between innovation and social networks within government, see Considine et al. (2009) and Considine and Lewis (2007). For an analysis of the barriers to the spread of innovation, see Ferlie et al. (2005).

4 Analyzing formal and informal relationships is a well-established approach to understanding networks. In network studies, researchers find that the mix of formal and informal ties changes over time in business alliances, with formal (i.e., contract-based) ties decreasing and informal ties increasing due to the long-term development of repeated informal trust-based relationships (Gulati 1995; Uzzi 1997). In contrast, Isett and Provan (2005) find that public and nonprofit relationships evolve differently than for-profit relationships because government agencies continue using formal contracts for stability and accountability. Unlike business networks that may eventually forgo formal contracts in lieu of trusted informal social relationships, public networks usually continue to use formal mechanisms such as contracts because of the legal, financial, and political accountability relationships that distinguish the public and private sectors.

5 More than 1,000 One-Stop Career Centers operate across the country. WIA explicitly designated One-Stop Career Centers to function as 1) “one-stop shopping” for federal, state, and local services related to employment and training; 2) coordination vehicles between workers and business-employers to improve the job matching functioning of the labor market; and 3) implementation mechanisms for federal policy reform seeking to restructure regional workforce development systems of government, nonprofit, and for-profit organizations. WIA authorizes One-Stop Career Centers to be operated individually or as cooperating partnerships by any combination of government, nonprofit, or for-profit entities.

6 Jobseeker customers receive a core set of job-search services such as access to free internet computers, trade journals, job listings, and informational workshops on such topics as job-search strategies and resume preparation. Some jobseekers are referred to public and nonprofit agencies for social services. One-Stops also provide services to business employers such as postings to jobs databases, labor market trends, consultation on finding workers, and direct referrals and job brokering with jobseeker customers.

7 The first study period between 1997 to 1999 encompassed implementation of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA)—the first major overhaul of federal welfare policy since its inception more than 60 years ago. Federal welfare reform provided a range of resources related to employment-related training and support to welfare recipients as part of work-first requirements mandating labor market participation. Welfare reform was accompanied by a combination of state and local policies and limited private philanthropic grants, producing an era of relative munificence due to new funding. During this same time period between 1997 and 1999, the
national and regional economy represented another exogenous factor because the network functioned directly in the labor market as an intermediary that matched jobseekers with business employers. The network provided services to employers (e.g., worker recruitment, job preparation) as well as jobseekers (e.g., job skill requirements, labor market analysis). Because the network primarily engaged in labor-matching, the network’s activities were directly related to changing conditions in the exogenous economic environment. During the first study period between 1997 and 1999, the nation and the Boston regional labor market experienced record economic expansion when unemployment rates reached historic 20-year lows. As such, this period reflects an era of economic growth—serving as an appropriate context to theorize a “best case scenario” for how a network—particularly a workforce development network—adapted during optimum economic conditions.

8 The second three-year study period of 2000 to 2000 was characterized by shrinking government resources associated with the reduction of funds tied to implementing welfare reform and WIA. At the same time, government budgets dependent on tax revenue were also constrained due to the economic downturn between 2000 and 2002. The National Bureau of Economic Research—official arbiter of whether and when a recession occurs—determined that an economic recession occurred between March and November 2001. However, business profits were already falling in the second quarter of 2000 after the bubble burst in the technology and telecommunications sector; the 9/11 terrorist attack also affected the national economy during the fourth quarter of 2001, and throughout 2002.

9 Examples of formal resource exchange include written contracts involving financial exchange between network members—including memorandums of agreements, sub-contracts, and fee-based service receipts. Examples of informal resource exchange include non-written in-kind interactions that included customer service referrals by another member of the network and professional expertise. Examples of formal mutual expectations include mutual plans documented in strategic statements, business plans, and grant proposals. Examples of informal mutual expectations include perceptions that were verbally expressed during interviews, meetings, and events related to the expected behavior of network members. Examples of formal information exchange include information technology and documented inter-organizational information transfers appearing in reports, memos, and letters. Examples of informal information exchange include inter-personal information sharing that occurred during phone calls, meetings, and events.