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**Urban Forum White Paper**

Beyond competition and consolidation in urban America:  
Prospects for effective local governance through collaborative networks

**Jered B. Carr**

**Michael D. Siciliano**

**University of Illinois at Chicago**

Draft Version—Not for Citation

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Political authority in America's major metropolitan areas is highly fragmented, often divided among dozens of cities, counties, and special districts. Assessments of political fragmentation have changed over time, but the one constant has been criticism. Local government scholars initially attacked political fragmentation as increasing the costs of government; later generations lamented its encouragement of intergovernmental competition for infrastructure and economic development; and more recently, it has been blamed for facilitating the economic and racial segregation prevalent in the U.S. (Carr 2004).

Angst about political fragmentation has not been limited to the academy. Business and civic organizations commonly express concern about the large number of distinct governments in their states, and state officials launch efforts to encourage mass consolidations (e.g., Carr, Gerber & Luper 2009, Illinois Task Force 2015). Much has been written about the "new normal" in the United States in which local governments face environments where revenue growth is severely constrained, demands for services are expanding, and their workforces are shrinking (Martin, Levey, & Cawley 2012, Elling, Krawczyk, & Carr 2013). Many of these governments also have pension obligations and other costs that have accumulated over time and compete with other priorities for funding. These challenges are often highlighted by local media, civic and business organizations, and state officials as an important basis for eliminating units of local governments (Hatley 2010; Editorial Board 2016). However, research on city-county consolidation, the most common form of large scale political consolidation, indicates that residents often resist being combined with communities with fewer resources (Carr 2004). This research underscores the

significant challenges, both political and legal, to addressing the consequences of fragmentation through elimination of local governments.

Public resistance to political consolidation does not mean that the landscape of local government service delivery and policy coordination has been static over time. Instead, intergovernmental collaboration has been the process used to address the various challenges political fragmentation creates (Aldag and Warner 2018). Local officials create bilateral and multilateral arrangements to address a host of issues that do not fit neatly within the borders of the existing set of political jurisdictions. The resulting networks of formal and informal relationships are used to mitigate some of the consequences of political fragmentation.

This paper synthesizes the research literature examining intergovernmental networks, and the network literature more broadly, to examine four critical issues. First, what is the rationale for using networks as a tool for addressing public problems instead of traditional structures? Second, what factors influence the selection and establishment of network partners? Third, how are formal and informal mechanisms used to reduce the risks associated with collaborating within networks? And fourth, what strategies are used to measure and promote success in the networks?

### **Issue One: Factors Driving the Creation of Local Government Networks to Address Public Problems**

The term “disarticulated state” was advanced by George Frederickson (1999) to describe the challenges confronted by local government officials in confronting the many public problems that transcend jurisdictional lines. He observed that public problems and local political authority often were not in alignment, and this issue was particularly acute in urban regions. Political consolidation is one approach for improving this alignment, but Frederickson focused on the

strategy of “administrative conjunctions” used to confront this problem. He concluded that these intergovernmental networks enable municipal officials to work together across political boundaries to achieve the scale necessary to develop solutions to the problems affecting their residents. In this section we examine what the empirical literature has learned about the factors explaining when local governments turn to networks to address problems that have transjurisdictional sources and impacts.

### ***Network Relations as a Contracting Problem***

Much of what we know about this question comes from research building on the municipal contracting literature depicting other governments as one of several potential partners municipalities might use to produce services to their residents (Brown & Potoski 2003, Hefetz & Warner 2004, Carr, LeRoux & Shrestha 2009, Kwon & Feiock 2010, Shrestha & Feiock 2011, Hefetz and Warner 2012, Bel & Warner 2016). This research has identified a set of contextual factors that explain when governments will contract for services instead of producing in-house. There is also a smaller case study literature examining specific collaborations that has produced insights about the importance of differences in priorities among potential partners and how different objectives generate different political challenges for intergovernmental collaboration (Nunn & Rosentraub 1997, Hatley, Elling & Carr 2014).

Bel and Warner’s (2016) meta-analysis of the quantitative analyses in this literature identified the eight most commonly analyzed factors used in the empirical literature on interlocal service cooperation. Table 1 summarizes their findings for the 49 studies (and 171 estimations) they reviewed. They report that fiscal constraints and cost savings from scale economies were the factors most often analyzed in this literature, but that nearly half of the studies reported null

findings for these factors. Fiscal constraints are most commonly operationalized as debt per capita, own source revenues per capita, and state laws limiting debt. They found that scale economies are typically captured through measures of service and place characteristics, and that the population of political jurisdictions is the most common measure used to proxy scale economies used in this literature.

**Table 1: Primary Explanatory Variables Examined in Empirical Literature**

Variable	Number	Percentage		Variable	Number	Percentage
<i>Fiscal Constraints</i>				<i>Community Wealth</i>		
Positive	53	43.8%		Positive	18	20.2%
Negative	16	13.2%		Negative	13	14.6%
Non-Significant	52	43.0%		Non-Significant	58	65.2%
Total	121	100.0%		Total	89	100.0%
<i>Economies of Scale</i>				<i>Spatial Effects</i>		
Positive	20	16.4%		Positive	33	55.0%
Negative	38	31.1%		Negative	4	6.7%
Non-Significant	64	52.5%		Non-Significant	23	38.3%
Total	122	100.0%		Total	60	100.0%
<i>Organizational Factors</i>				<i>Racial Homogeneity</i>		
Positive	26	41.9%		Positive	24	41.4%
Negative	5	8.1%		Negative	7	12.0%
Non-Significant	31	50.0%		Non-Significant	27	46.6%
Total	62	100.0%		Total	58	100.0%
<i>Service Level Transaction Costs</i>				<i>Politics</i>		
Positive	13	41.9%		Positive		
Negative	6	19.4%		Negative		
Non-Significant	12	38.7%		Non-Significant		
Total	31	100.0%		Total	12	100%

Source: Bel & Warner (2016), Table 2

Bel and Warner's study shows that this empirical literature does not provide strong support for expected role of most of these factors. Table 1 shows that none of the categories of variables has an impact on interlocal service delivery that is unambiguous. In half of the categories,

nonsignificance was the most frequent finding, and the significant findings showed conflicting directions in another third of the categories. Spatial effects and service level transaction costs had the most consistent significant findings.

### ***Fiscal Stress and Network Relations among Local Governments***

Bel and Warner (2016) showed that expectations about the stimulating effects of fiscal factors on the adoption of interlocal agreements were rarely supported by this literature. Given the prominence of fiscal factors in arguments promoting increased contracting, joint ventures, and other forms of service sharing (Andrew 2009a), we discuss this factor further.

As outlined in the introduction, the importance of fiscal stress as a motivator for municipal officials to seek service collaborations is widely presumed (Andrew 2009a). However, the empirical evidence for this proposition is mixed at best.

Case analyses report similar conclusions. Research by Hatley (Hatley 2010, Hatley, Elling, & Carr 2014) illustrates the challenges of collaborations initiated in the context of fiscal stress. This research used the case of a failed effort to create a fire authority to serve several cities to illustrate that this factor may prove to hinder efforts to jointly produce services. He found that fiscal pressures on the five communities added to the difficulty of forming the authority. This surfaced in terms of resistance from the firefighters that culminated in political losses by several of the elected officials promoting the effort. Among the obstacles that Hatley (2010) cited was that administrators generally expected to reap long-run savings from the fire authority, but most of the elected officials expected short-run cost savings.

Bel and Warner's meta-analysis focused on self-organized networks, but networks can also be mandated or incentivized by higher authorities. Mandated networks may be particularly

important in the context of significant collective action problems brought on by fiscal stress or by free rider issue generated by the structure of the problem. Federal and state legislation often encourages intergovernmental collaboration around specific problems, such as transportation, environmental, and public health challenges. For example, the US Department of Housing and Urban Development requires the use of a continuum of care model to access funds through the McKinney-Vento Homeless Assistance Act Supportive Housing Program (Lewis, Boulahanis, & Matheny, 2009). The continuum of care model requires communities to demonstrate they have a collaborative network in place involving a number of homeless serving agencies that provide services ranging from emergency care to permanent housing (Lewis et al., 2009). Similarly, the United Kingdom established Crime and Disorder Reduction Partnerships (CDRPs) as part of the Crime and Disorder Act of 1998. The CDRPs were a collaborative network designed to reduce crime and consisted of a number of government agencies that addressed related issues of policing, probation, youth offending, and other local government service organizations (Kelman, Hong, & Turbitt, 2013).

### **Issue Two: Bases for Partner Selection in Collaborative Networks**

Political fragmentation creates a pool of potential partners, but the existence of many different partners also increases uncertainty, informational asymmetries, and ultimately, collaboration risks. This section summarizes what the empirical network literature has shown about partner selection based on risk mitigation strategies. The primary explanations for partner selection fall into two broad categories: homophily based and network configurations.

It seems likely that risk mitigation is not the only basis local public officials use to select partners, but information on the other bases local officials use to select partners is scarce because researchers typically do not ask participants to explain why they chose their partners. Indeed, the

literature on local public service networks typically analyzes partner selection through relatively large N studies where researchers examine network structures and draw conclusions about motivations in partner selection (Carr, Siciliano, & Hugg 2018). Risk mitigation is generally the lens used in this literature to explain how governments choose partners.

We know far less about the role that other potential motivations for choosing partners, such as competence, common objectives, or close proximity play in partner selection. Collaboration does not occur unless the costs of coordination are overcome, and alignment on these motivations is expected to reduce coordination costs (Carr & Hawkins 2013). This aspect of partner selections is understudied, but important in light of research by findings reported by Aldag and Warner (2018) that cost efficiencies do not appear to provide a sufficient basis to sustain intergovernmental collaborations over time. They reported that their analysis showed that agreement with objectives focused on service quality improvement lasted longer than those where costs savings was a major objective.

### **Selection Based on Homophily among Actors**

One way local government officials may reduce the risks involved in collaborative agreements is to partner with similar local governing units, a process known as “homophily” (Andrew 2009b; Andrew and Hawkins, 2013). Similarity aids in the establishment of trust (Brass, 1995), reducing the risk of opportunism, lowering monitoring and enforcement costs, and reducing the time required to negotiate agreements (Hawkins and Carr 2013). Risks stemming from the selection of partners have long been a focus of the literature on local government contracting and many studies suggest risk is reduced when governments choose to collaborate with partners with comparable municipal institutions, resident demographics, institutional roles, levels of education



and professional training, and the professional affiliations of administrators and elected officials (see especially, Feiock 2013; Frederickson 1999; Hawkins & Carr 2013; LeRoux & Carr 2010).

The complexity of organizing the potential partners and coordinating the collaboration is expected to be more difficult when the preference of potential collaborators diverge. Preference divergence is typically operationalized in the empirical literature as differences in terms of demographic characteristics, resource levels, or municipal institutions (Carr & Hawkins 2013).

Oakerson (2004) emphasizes the importance of the homogeneity of residential preferences for services within cities in reducing coordination costs because public officials are more able to “speak with one voice” for the residents when making governing decisions on their behalf.

Several studies have focused on this issue. For example, Bae (2009) found that differences in demographic composition across jurisdictions have a negative effect on the formation of intergovernmental agreements among governments in Georgia’s metropolitan areas. Similarly, respondents to Hawkins’ (2009) examination of joint venture formations reported that a lack of agreement among communities on development goals was a significant barrier for local governments seeking to establish an agreement. Finally, Frederickson’s (1999) concept of administration conjunction suggests that regions with relatively large numbers of professional administrators will have lower coordination costs because these administrators often share a regional perspective and seek to cooperate on public services where possible.

In a study of regional planning networks, Henry, Lubell, and McCoy (2011) found homophily effects for local and federal-level actors, indicating local actors tended to interact with other local actors and federal actors tended to more often interact with other federal actors. However, no such homophily effects were found for state-level actors or NGOs operating in the same regional planning networks. Research by Siciliano and Wukich (2015) on emergency management

network formation found strong homophily effects for both organizational sector (public and nonprofit) as well as organizational scale (city, county, state, and national). Other research on economic development organizations (Lee, Lee, & Feiock, 2012) and formal contracts among local government organizations (Andrew, 2010) produced mixed results.

Results from research exploring the role of homophily may be mixed due to differences in motivation for collaboration. Some actors may seek to collaborate to gain legitimacy, others to gain needed resources, and others to simply be more efficient (Andrew, 2010). The distance between actors, which can be viewed as geographic homophily, likely plays an important role as well. Reagans (2011) found that physical distance moderates the effect of similarity on the frequency and strength of ties between two actors. Distance may also provide additional opportunities for actors to interact and build trust over time. Research by LeRoux, Brandenburger, and Pandey (2010) found that local governments were more likely to form interlocal service agreements if their municipal managers were members of the same regional associations or councils of government.

### ***Selection Based on Network Configuration***

The configuration of network relationships also influences partner selection. Local governments involved in collaborative service arrangements are part of a network of organizations involved in service production activities and they may also be able to reduce the risks from these arrangements if they are strategic in the networks they join. The web of relations among organizations can be relatively simple, as in the case of a single jurisdiction in which many local governments have established a tie, or highly complex where local governments form multiple relations with one another across a region (Shrestha 2010). Our understanding of how the creation of interlocal service agreements lead to different forms of network structure is limited,

but a literature examining different network configurations and how they affect service cooperation among local governments is emerging (Carr, Siciliano, & Hugg 2018). One thing that is clear is that the optimal selection of partners also depends upon the goods and services involved in the collaboration.

There are many potential network structures that may have implications for the level of transaction costs associated with collaboration and therefore the structure of the network can strongly influence decisions on with whom to collaborate. The two types of configurations that have received the most attention in the literature are those associated with “bonding” and “bridging.” Bonding and bridging structures vary in the level of connectivity among a set of actors. Bonding structures are dense and characterized by numerous ties connecting actors with each other. Bridging structures, on the other hand, have few ties, resulting in many actors who are not directly connected to one another.

Andrew (2009b) depicts these two structures as strategic alliances that governments can join when needed. He argues that bridging structures help local governments to reduce risks in collaborative arrangements for services characterized by high asset specificity. Highly asset-specific services are those that are difficult to adapt to other uses and therefore only a few vendors will likely be willing to provide the service in the local market. Sellers of these services make specialized investments and cannot easily use them to provide other services. Andrew (2009b) predicts the risks associated with asset-specific problems will lead local governments to enter into service agreements with only a few “high-status” actors; “Establishing contracts with central actors is important for local governments to reduce the costs of crafting and monitoring multiple agreements with other localities independently” (Andrew 2009b: 385).

Counties are well positioned to be the central actor in bridging networks among local governments. These sparse networks permit localities with different interests and resources to negotiate in ways that maximize their control over transactions (Scholz, Berardo and Kile 2008). This type of “bridging” network may allow cities to not only discover a broader set of possible gains from establishing shared service agreements within others that are inside and outside the region, but also the opportunity to reap the advantage of innovation or visions that are not available within a highly clustered network (Andrew and Carr 2013). Thus, a sparse network structure may provide information advantages and reduce coordination problems across jurisdictions.

A second form of strategic alliance occurs when local governments enter into agreements with partners of their current partners to mitigate credible commitment problems. Andrew (2010) argued that dense network relationships reduce risks of uncertainty in collaboration on service production, thereby creating social capital. These bonding structures reduce uncertainty by improving the amount and quality of information about the actors in the network and increase the confidence the participants have in the others (Andrew and Carr 2013). This close-knit structure can be particularly useful for collaborations on services with high measurement costs and for confronting policy problems characterized by complex tasks and significant uncertainty over expected outcomes. A highly clustered network reduces the cost of enforcing an agreed set of working rules because any actions taken or not taken by a recipient are easily shared with others in the network. Any threat of collective sanction among the participants in a shared service agreement will enhance the credibility of punishments being imposed. Given this, participation in this kind of structure may signal to the other partners that the local government is willing to take their interests into account (Andrew 2010).

A related strategy local governments can use to reduce risks in service collaborations is to take part in “multiplex” service production arrangements (Shrestha and Feiock 2009, Carr, Siciliano Hugg 2018). Multiplex relations occur when local governments engage with other units in multiple shared service arrangements simultaneously. In some cases shared service delivery reflects cooperative arrangements where there are multiple agreements between various city departments between two cities. Multiple service contracts that link more than one service can reduce credible commitment problems and minimize the potential for defection. For example, a city may have a police service contract with another city in the region, as well as shared service contracts for fire or emergency medical services with the same city. Shrestha and Feiock (2009: pg. 806) suggest “[t]he risks involving contractual arrangements in one service area can be mitigated if these contracts are embedded in broader multiplex service relationships.”

Multiplexity is important for making decisions in shared service delivery arrangements because they may signify more trust and, therefore, influences future exchanges and the maintenance or expansion of existing shared service delivery arrangements. Thus, partner selection in a given service area may be somewhat dependent on prior partnering decisions in other service areas.

### **Issue Three: Collaboration Risk and Institutional Mechanisms**

Local governments that use networks to delivery public services confront three types of risks: coordination, division, and defection. Problems of coordination, division, and defection arise during efforts to create arrangements to produce services with other organizations (Carr and Hawkins 2013). The following paragraphs will provide an overview of each of these risk types and the obstacles they present for successful collaboration.

#### ***Collaboration Risk: Coordination, Division, and Defection Costs***

*Risks due to Coordination Costs.* The process of bringing together two or more local governments to collaborate is described in the literature as a coordination problem (Hawkins 2009). Potential partners often bring policy preferences to collaboration that will need to be reconciled and the costs of negotiating may create a disincentive for local public officials to collaborate with other governments, especially if the extent of any joint gains is unclear (Hawkins and Carr 2013, Hatley 2010). Local officials must develop agreements that support the goals of the group, yet also address the needs of their own diverse populations (Kwon and Feiock 2010). This tension can increase the costs of coordinating the agreement. Agreements typically require approval from each city council, and depending on the nature of the transactions, several rounds of negotiation and bargaining may be required to determine the terms and conditions of the agreements. In the presence of serious differences among the parties, serious obstacles may arise during negotiations on these agreements (Hatley 2010).

*Risks due to Division Costs.* Division problems occur when local governments agree on the general goals for the collaboration, but encounter difficulty in dividing and distributing the expected benefits among the group (Hawkins 2009). While of the literature examining shared services often focuses on the issue of coordination—explaining the situations when local governments will contact or otherwise share services with other organizations—studies rarely focus on how division costs affect these decisions.

The few studies focusing on division issues have provided important insights into the risks division problems create for the parties to shared service arrangements. Steinacker (2004, 2010) has devoted some attention to these costs in game theoretic discussions of collaboration. She proposed that division costs can be significant obstacles for cooperation on public services that are nonrivalrous and have limited excludability; “cooperation in these situations is dependent on

the relationship between the value of the cooperative outcome and each player's ideal outcome" (p. 49). Her work suggests that participants will accept returns that deviate from their ideal levels, but that the risk of defection increases as the gap grows. Hawkins (2009) has also focused on the obstacles created by division costs in collaborations on local public services. His research surveyed local government officials to assess the extent to which issues of dividing tasks, costs, and benefits were obstacles in their efforts to form joint ventures with other governments. He concluded that division issues in terms of different perspectives on appropriate contributions to an agreement and the expected level of return from these contributions hindered the formation of joint ventures in the twelve metropolitan areas he studied.

Many of the same factors that increase coordination costs are likely to also increase division problems. Steinacker's (2004) work points to difference in political power, policy preferences, resource levels, and demographic composition as important factors. She observes that the relative power of participants may depend on the specific services to be shared. For instance, she suggests that cities with the largest population may have greater power in agreements involving capital-intensive services such as water or sewage treatment systems. She goes on to suggest that power differentials will usually be less important in the case of labor-intensive services because cooperating cities are on more equal footing when it comes to their own production costs.

Hawkins' (2009) analysis of the formation of joint ventures among cities indicated that differences in socioeconomic characteristics and resource levels increased division problems.

Hatley's (2010) examination of the efforts by five suburban communities in the Detroit metropolitan area to create a multi-community fire and emergency medical services authority also highlighted the importance of division costs. Demographic, political and fiscal similarities, combined with a past history of fruitful collaboration, suggested these communities were good

candidates for interlocal collaboration. Nevertheless, despite several years of work the effort failed. His work suggests that differences over how future savings will be shared among the participants can be a significant obstacle to the creation of shared service arrangements.

*Risks due to Defection Costs.* Defection problems emerge when one party does not comply with the agreement (Hawkins 2009). Without a credible commitment, one or more of the negotiating parties has an incentive to defect and free ride on the efforts of others (Feiock 2009). Bargaining requires a careful outlining of the terms and conditions of the exchange in order to ensure credibility of commitment, to adapt to environmental uncertainties and to resolve conflicts that may arise in the future. As Brown and Potoski (2005: 328) note, policy decisions are particularly risky when local governments are faced with “limited information, uncertainty about the future, and the prospect that people or organizations behave opportunistically.” In essence, each participant must be confident that the others have consistent policy preferences, will maintain the underlying goals and objectives of the agreement and have a commitment to fulfill their obligations (Hatley 2010; Hawkins 2010).

This risk of defection is greatly affected by the risks created by two characteristics of public services: asset specificity and measurement difficulty (Carr, LeRoux, and Shrestha 2009). The concept of asset specificity, as discussed above, refers to whether specialized investments are needed to deliver the good or service. Theoretically, asset specificity creates significant risks for both buyers and sellers and works against the creation of a competitive market for the service. Sellers are vulnerable to decreases in demand for the service because they must make investments in assets that are not easily deployable to other uses. The risk to the supplier of losing customers is great and, as a practical matter, only a few suppliers can survive in the same market. This reality makes buyers vulnerable too, because few sellers are willing to provide the



service in the face of this risk. Thus, the specialized investments necessary to provide the service help to create monopolistic conditions that limit viable competitors and put buyers at risk of opportunistic behavior by sellers.

The second dimension, measurement difficulty, indicates the ease to which performance measures can be identified and the extent to which vendors can be expected to meet all their obligations in delivering the service. A service is difficult to measure when neither the outcomes to be achieved nor the activities to be performed in delivering the service are easily identifiable. Easily measured services have readily identifiable performance metrics that accurately represent the outputs and/or outcomes of service quantity and quality (Brown and Potoski 2005). It is far less costly, for example, to measure the quality of trash collection than it is to assess the delivery of mental health care services. Developing a contract for the latter services is more costly because expected levels of output often cannot be established in advance and performance of these types of functions requires substantial discretion, making it difficult to clearly specify performance expectations in contract language (Carr, LeRoux, and Shrestha 2009).

When the measurement difficulty of a service is low, the savings in production costs from external production is likely greater than the cost of monitoring these suppliers. Government officials are thus likely to rely on private and nonprofit contractors when measurement difficulty is relatively low (Brown and Potoski 2003, 2005; Carr, LeRoux, and Shrestha 2009). However, as measurement difficulty increases, the cost of monitoring service providers increases relative to the gains achieved from a competitive market. When measuring service quality is more difficult, cities will turn to their governmental counterparts because monitoring and enforcement costs will be lower due to the expectation of less opportunistic behavior by another government in comparison to a private provider (Brown and Potoski 2003; Carr, LeRoux, and Shrestha 2009).

When measurement difficulty becomes very high, city officials are expected to opt for direct production rather than spend scarce resources for costly monitoring and enforcement of a contracting agreement. Internal management can significantly reduce negotiation, monitoring, or enforcement costs as these become intra-organizational, rather than inter-organizational issues.

### *Institutional Mechanisms used to Support Networks*

The potential of specific forms of self-organizing institutions to be used to confront problems stemming from the economic and environmental interconnectedness of metropolitan regions is a topic of extensive research (see especially Scholz and Feiock 2010; Feiock 2013). Feiock (2009) lists six institutional mechanisms that may be used to support shared service arrangements among local governments. The institutions he identifies differ in terms of the autonomy retained by participants and if decisions affecting the partnership are made bilaterally or multilaterally. Self-organizing institutions that permit substantial autonomy to participants reduce coordination costs, but may also encounter significant costs from problems of division and defection. At the other end of the scale, institutional mechanisms that reduce autonomy can mitigate defection and division costs, but may significantly increase coordination costs. The multilateral institutions identified by Feiock include regional authorities, regional organizations, and collaborative groups/councils. In this section, we focus on the three bilateral institutions discussed by Feiock because they are the most relevant to service collaborations among local governments. These institutions include managed networks, contract networks, and policy networks.

*Managed Networks.* Managed networks are cooperative agreements among cities that are designed or coordinated by third parties such as state or federal governments to reduce coordination problems and the potential for defection. In these mechanisms, a higher level

government provides funding and mandates the formation of collaborative relations among local governmental actors. Existing institutions or actors, such as the state, a council of government or a policy entrepreneur serves as a broker and assumes responsibility for helping to craft an agreement (Wood 2006). Shrestha (2010) concluded that managed networks can be effective mechanisms for collaborations on services for which transaction costs are relatively low.

*Contract Networks.* Contract networks links individual units through joint ventures, interlocal agreements, and service contracts that require the consent of those involved. This institutional mechanism links local governments in legally binding agreements, but preserves the autonomy of local actors while also providing a formalized shared service delivery mechanism (Feiock 2009). Contract networks provide a self-organizing mechanism for local governments to work collaboratively to resolve service provision problems. Contracts formalizing service delivery and that clearly outline the responsibilities of partners also entail transaction costs related to monitoring the contract and evaluating the performance of the service provider, but as Wood (2004) contends, such interlocal arrangements require less frequent interaction by the participants and thus involve lower transaction costs. These may prove to be more stable and, ultimately, more permanent arrangements. Andrew (2009b) contends that interlocal agreements can be an effective way to integrate service production in urban regions. Norms of reciprocity among local government actors is important for the maintenance or establishment of new contract networks because these networks often span functional areas (Shrestha and Feiock 2009; Andrew 2010). This multiplexity is important to reducing transaction risk, particularly opportunism, because information about defections is shared relatively easily through the network and noncompliance in one service contract can affect relationships in other service agreements (Andrew 2010).

*Policy Networks.* The third bilateral institution is policy networks. This mechanism uses informal, self-organized exchange relationships between local governments to encourage trust and reciprocity among the members of the network (Scholz, Berardo and Kile 2008; Andrew 2009b, 2010; Shrestha 2010). Andrew (2010) argues that an important feature of a policy network is that participants pay attention not just to a potential partner's characteristics, but also consider the relations of the potential partner within the broader network (Andrew and Carr 2013). The repeated interactions among local government actors help to mitigate the transaction costs of forming a shared service agreement.

Policy networks provide the greatest degree of autonomy in decisions to enter and exit agreements and this autonomy can affect the risk of sharing services. This flexibility can also increase costs of decisions and may limit the situations where policy networks can be effective. These less formal arrangements may still have relatively high transaction costs due to the attention to bargaining, negotiation, consensus building, and conflict resolution required to initiate and maintain the cooperative effort. Feiock (2009) points out that policy networks often “complement and reinforce other mechanisms” (p. 365) by providing important support to the more formal authority structures that facilitate service collaboration. The support that the “administrative conjunctions” described by Frederickson (1999) is one example of how policy networks may help to mitigate the risks of collaborating through contract networks, regional organizations, and other institutions identified by Feiock.

#### **Issue Four: Measuring Success in Networks**

While scholars and practitioners frequently laud the potential of networks to improve service delivery and address complex policy problems, the evidence of the effectiveness of networks is surprisingly scarce (Kapucu, Hu, & Khosa, 2014; Koontz & Thomas, 2006; O'Leary & Bingham,

2009). In this section we bring together relevant literature on network performance to help organizations understand how performance is measured and the factors associated with success.

Provan and Milward (2001, pp. 414-415) note:

*“Evaluating network effectiveness is critical for understanding whether networks – and the network form of organizing – are effective in delivering needed services to community members. Evaluation of network effectiveness is especially important for those who formulate public policy at the local, state, and national levels, so that scarce public funding can be allocated to service-delivery mechanisms that are utilizing resources efficiently while adequately serving public needs.”*

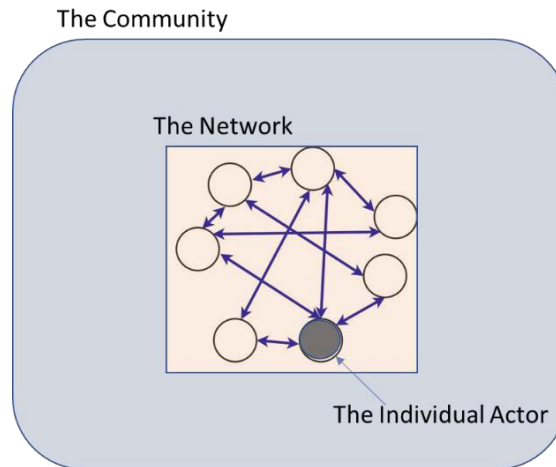
Analysis of a performance in the public sector, even for a single bureaucracy, is a challenge. The goals of a policy or agency often lack clear definition and defy easy measurement (Dunn, 2012). Public organizations also serve a range of stakeholders and constituents who may hold diverse opinions on the appropriate outcomes of a given government program. The inherent challenges of evaluating performance in the public sector become even more pronounced when working within networks. Klijn and Koppenjan (2015), offer three reasons for this. First, governance networks are multi-organizational collaborations, where each actor is subject to their own constituents and stakeholders. Individual actors in network arrangements often produce just a part or portion of the overall service or program, leading to differing perceptions on appropriate performance metrics. Consequently, the number of goals and agendas is dramatically increased in network settings. Under these conditions it “becomes problematic to use goal attainment by one of the actors as the assessment criterion to determine the success or failure of a policy or the delivery of a service” (Klijn & Koppenjan, 2015, p. 244). Second, the targets and goals of the network are constantly shifting. As members of a network interact and work to address common

concerns, individual and group perceptions of the problem, objectives, and relevant criteria evolve through the collective learning process. Third, while commonly strived for, consensus in networks is often missing. The variety of actors and agendas tend to produce goals that are rarely unified and coherent and thus lack a clear, logical metric by which to evaluate performance. Despite these challenges, a number of scholars have explored the concept of performance in networks.

### ***Measuring Performance in Networks***

Networks are multilevel arrangements. As such, measures of performance exist at three distinct levels (see figure 1): the community served by the network, the network itself, and the individual members of the network (Provan & Milward, 2001). “These levels are of concern to three broad categories of network constituents: principals, who monitor and fund the network and its activities; agents, who work in the network both as administrators and service-level professionals; and clients, who actually receive the services provided by the network” (Provan & Milward, 2001, p. 416).

**Figure 1: Levels of Network Performance**



At the highest level, the community served by the network plays an important role in shaping and defining the appropriate outcomes measures. Networks often arise to address problems that cross jurisdictional boundaries giving rise to collaborative arrangements that include actors from a range of municipalities and levels of government (Feiock, 2009). These networks are often tasked with addressing problems associated with public health (Provan & Milward, 1995), crime (Kelman et al., 2013), economic development (Feiock, Steinacker, & Park, 2009) and other policy issues that confront a community or larger region. Reflecting the stakeholders at this level, evaluating performance at the community level entails assessing the public's perception of progress, the overall cost to the community, and aggregate indicators of client well-being (Provan and Milward 2001). For example, in their study of the impact of interagency collaboration networks designed to reduce crime and disorder, Kelman et al. (2013) measured

performance based on changes in the overall crime rate in the communities served by the network.

In addition to considering the broader outcomes for the community and clients served, the network exists as its own functioning entity suitable for evaluation. For networks to be effective in addressing community problems, the network itself must function efficiently and effectively. Evaluating performance at the network level focuses either on the participatory processes that characterize the network or the direct outputs and outcomes of those processes. Carr, Blöschl, and Loucks (2012) provide a list of procedural measures associated with collaborative governance and include: accountable discourse, dialogue that supports ideological differences, variety of knowledge sources included in decision making, consensual decision making, and the clarity of the rules and tasks that govern the network. When such desirable participatory processes are in place, networks are more likely to be effective and produce relevant outputs and outcomes (Ansell & Gash, 2008; Emerson & Nabatchi, 2015). Provan and Milward (2001) identify several relevant measures of network effectiveness including the attraction of new members, retention of existing members, range of services provided, and the strength of relationships among the members.

Lastly, organizations and local governments enter into collaborative arrangements seeking some direct benefit. These benefits may come in the form of reduced costs, increased resources, greater legitimacy, and better outcomes for their own clients (Provan and Milward 2001). A related line of research has explored the networking activity of the leaders of organizations. This work demonstrates that leader networking and the establishment of professional relationships with external stakeholders shapes organizational performance (Meier & O'Toole, 2001, 2003).

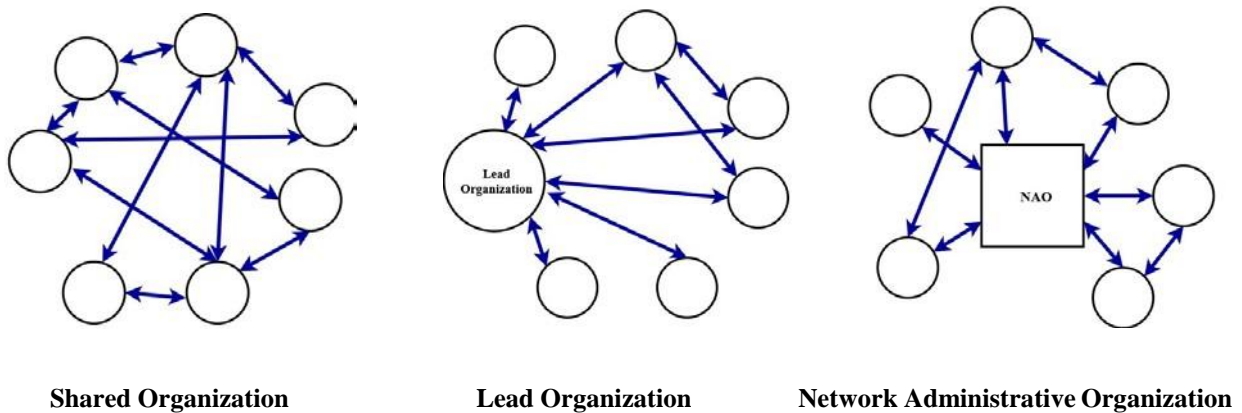
### ***Factors Related to Network Performance***



Assuming an organization has chosen to engage in collaborative governance, what variables are associated with the success of the network? In the following sections we consider a range of factors that may influence the potential for networks to perform and group those factors into three categories: (i) form of governance, (ii) structure and composition of the network, and (iii) network management practices and collaborative processes.

*Form of Governance.* While networks are often viewed as a distinct form of governance (compared to hierarchies and markets), networks are not monolithic, and can be classified into distinct structural forms. Provan and Kenis (2008) classified networks into three forms: shared governance, lead organization, and network administrative organization. These forms of network governance vary along two dimensions. First, networks can be positioned between those that are centered around a single organization which brokers the communication and interaction among the members of a network and those where all organizations share equally in governance and overall connectivity. Second, for those networks that are brokered, the central actor can be a participant of the network or a third-party actor brought in specifically to lead the collaboration. These distinctions are depicted in the figure 2.

**Figure 2: Forms of Network Governance (Adapted from Kenis & Provan, 2009)**



Based on these varying forms of governance, Provan and Kenis (2008) developed a set of theoretical rationales for why certain forms of governance may be more effective than others in producing policy outcomes. These include the level of trust and goal consensus in the networks. Provan and Kenis (2008) argue that the level of trust in a network should be reflected in its form of governance. If trust is low, such that few organizations trust one another, shared governance will be limited in its effectiveness as there is little foundation on which to build collaboration. Therefore, shared governance structures are most effective when trust is widely distributed among the network members. To be effective when trust is lacking, networks need to be centralized and brokered by a primary actor, whether a lead organization or a NAO. In these brokered networks, trust does not need to be distributed across the members of the network, but rather only dyadically between the central organization and each of the other members. Klijn and Koppenjan (2015, p. 201) suggest that institutional design strategies can also be used to enhance trust when it is lacking. Network management strategies, regardless, of form of governance, can aim to establish clear rules and standards of action along with specific conflict management resolutions. These design decisions allow network members to set appropriate expectations for action and recourse, and allow actors to engage others with greater certainty and trust.

As noted above, one of the challenges of operating within and measuring the performance of a network, is the lack of goal consensus. At the community level, goal consensus concerns the broad objectives of the network. At the network level, consensus focuses more on procedural and network management aspects such as whether new funding sources should be sought, or whether new members should be brought into the network. When goal consensus is relatively low, shared governance forms may not be effective as it becomes difficult for actors to identify mutual

objectives and common tasks. Milward and Provan (2001, p. 415) argue that the joint production of services can lead to “substantial problems regarding resource sharing, political turf battles, regulatory differences, and the like.” Indeed, if goal consensus is completely absent, networks may not be an effective form of organization at all. At intermediate levels, lead organizations or NAOs are likely to be more effective. These broker organizations bear responsibility for most strategic and operational decisions and therefore are well positioned to integrate diverse ideas and achieve some level of agreement in order to pursue collective action.

*Network Structure and Composition.* In addition to the form of governance established to manage a network, the structure and size of the network also influence performance. A straightforward and important dimension of network structure is density. Network density is the ratio of the number of ties present in a network versus the number of possible ties. Ties between organizations can range from formal agreements to informal communication. Some networks may be highly interconnected, or densely structured, allowing for information to flow quickly to all members of the network. These networks, termed closed networks, are often characterized by bonding structures, where actors cluster into tightly connected groups. Several scholars have argued that closed networks help establish trust and set norms of expected behavior (Bourdieu, 1986; Putnam, 2000). However, closed networks have two limitations. First, the networks can be costly to maintain as each tie requires time and energy to sustain. Second, closed networks often contain redundant information. Because actors are tightly connected with one another, they share similar information and resources (Burt, 1992, 2000).

Given these limitations, open networks, that are less densely structured, are often seen as facilitators of innovation and new ideas (Burt, 2004). Less dense structures are often full of what Ron Burt terms structural holes; a gap in the network structure that creates opportunity for actors

to bridge disconnected parts of the network. These bridging structures, which provide opportunity to reach out to others with distinct information and ideas, have been shown to produce higher quality and innovative outcomes (Burt, 2004; Siciliano, Welch, & Feeney, 2018).

Likely the optimal structure of the network, and appropriate level of bonding and bridging, depends on the particular tasks networks are charged with and the level of inherent risk. For less risky forms of collaboration, often referred to as coordination problems, networks can perform effectively if they are less densely structured and more centralized around a key actor who functions as an information broker and primary coordinator. Risk increases when several actors must cooperate and provide resources to address a common problem. Actors involved in more risky collaboration problems may freeride or defect from their obligations leaving the other network members to provide the needed resources and effort. Closed networks can reduce freeriding as the actions of others are more easily observable and sanctioned by the group (Berardo & Scholz, 2010; Lubell, 2007). In other words, the advantage of closed networks is in reducing the risk of cooperation, while the advantage of open networks is in increasing the returns that may come from cooperation. Research suggests that both the efficiency and innovation of open networks and the trust and risk reduction that come with closed networks may be needed simultaneously (Burt, 2005). Yi (2018) explored how bridging and bonding patterns in state level clean energy governance networks affected green job growth and renewable energy capacity. He found that both bridging and bonding had a positive and significant correlation with clean energy outcomes.

Network size can also influence the performance of networks, but primarily through the effect of size on governance. While larger networks offer the potential for greater resources and political power, they are also more difficult to manage. In smaller networks, members can interact face to

face and deal with potential problems directly. As the number of network participants increases so does the complexity of governance (Provan & Kenis, 2008). Provan and Kenis (2008) argue that while shared governance is often desired by network members, such approaches become highly inefficient as the number of actors grow, and therefore brokered networks become a likely solution.

*Network Management and Processes.* Networks, regardless of the form and structure, need to be managed. Agranoff and McGuire (2001, p. 296) argue that “[i]ncreasingly, the capacities required to operate successfully in network settings are different from the capacities needed to succeed at managing a single organization.” In particular, the traditional hierarchical, command and control style models are unavailable in networks that rely on shared power and decision making (Koliba, Meek, & Zia, 2011). Research suggest that how networks are managed and the processes that define organizational interaction impact overall performance (Emerson & Nabatchi, 2015; McGuire & Silvia, 2009). A key question addressed in the network literature concerns whether leadership behaviors and management strategies needed for high performance in networks differ from those needed for success in single agencies (Silvia & McGuire, 2010). In their study of county-level emergency managers, Silvia and McGuire (2010) classified leadership behaviors into people oriented, task oriented, and organization oriented. They found that leadership behaviors differed between network and single agency settings. Managers, when operating within their own organizations tended to focus on task oriented behaviors (e.g., keeping work moving, assigning task, scheduling work, setting expectations). But when the same managers operated with in the broader emergency management network, their leadership behaviors switched to more relationship oriented (e.g., treating all as equals, freely sharing information, creating trust) and organization oriented behaviors (e.g., identifying resources,

establishing a shared vision, identifying stakeholders) In a related study, McGuire and Silvia (2009) examined the effect of leadership behavior on perceptions of the performance of emergency management networks. They found that behaviors emphasizing the management of external stakeholders and those that focused on strengthening internal relationships among the network members were correlated with positive performance. Thus network leaders need to manage both outward and inward when attempting to effectively operate within networks. Kelman et al. (2013) examined management practices within networks designed to reduce crime. They found that reductions in crime are associated with specific management practices, including the building of trust among network partners and the implementation of performance measures to monitor progress.

Moving from individual leadership practices within networks to the dynamic interactions among the organizations that comprise the networks, two of the major models of collaborative governance stress the importance of deliberative processes. Ansell and Gash (2008) highlight five main features that they collectively bundle under the term collaborative processes. These features are (i) face-to-face dialogue and good faith negotiation, (ii) trust building, (iii) commitment to the process by way of shared understanding of interdependence and shared ownership of the process, (iv) shared understanding of mission through identifying common values and developing shared definitions of the problem, and (v) establishing intermediate outcomes through “small wins” such as the formulation of strategic plans and joint fact-finding. Similarly, Emerson and Nabatchi (2015) identify three key collaborative dynamics: (i) principled engagement, (ii) shared motivation, and (iii) joint capacity for action. Empirical research testing these collaborative dynamics demonstrate that face to face interaction, developing a common

problem understanding, and awareness of other network actors, are all processes associated with network benefits (Scott & Thomas, 2017).

Overall, networks can be structured and lead in a variety of ways. Network managers and participants need to consider the existing level of trust and goal consensus when designing the institutions and processes that will govern network interactions. We agree with Kenis and Provan (2009, p. 446) who state that, “[m]any networks simply lack the functionality to produce certain types of outcomes. This is a matter of design.”

## **Conclusion**

Political authority in America’s major metropolitan areas is highly fragmented. Fragmentation can lead to competition among local governments for citizens and resources, result in the duplication of services, and create a mismatch between the scale of public problems and local political authority. While consolidation has been a long-sought solution to address the problems of fragmentation, it has been rarely used. Rather, local governments have turned to collaboration and networks to manage fragmentation and provide services for their citizens. These networks vary considerably in their formality, size, and structure.

This paper attempted to provide a review of the literature and explore the factors that lead local governments to cooperate, the risks associated with forming network relationships, the types of institutional mechanisms used to support networks, and the variables that may influence success. The current empirical literature on networks may best be characterized by its ambiguity. Much of what we know about networks and their potential for success remains uncertain. The mixed empirical findings may be a result of the different risks perceived by local governments as they

enter into collaborative relationships and the different goals actors may seek. More research is needed to help practitioners identify and measure the costs and benefits associated with a given collaboration and the appropriate institutions to best manage risk in hopes of producing positive outcomes for their citizens.

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