

*Political Science*  
*Working Group on Interlocal Services*  
*Cooperation*

---

Wayne State University

*Year 2005*

---

Institutional Collective Action and Local  
Goverance

Richard C. Feiock  
Florida State University, rfeiock@coss.fsu.edu

# **Institutional Collective Action and Local Governance**

**Richard C. Feiock**

Askew School of Public Administration and Policy &  
Devoe Moore Center, Program in Local Governance  
Florida State University  
Tallahassee FL 32303  
<http://www.fsu.edu/~localgov>

*This paper elaborates the institutional collective action framework and its applications to cooperative interlocal service agreements among governments in metropolitan areas. It begins by outlining the information, negotiation, enforcement and agency cost that pose obstacles to cooperative interlocal arrangements. Next it identifies how these transaction costs, and the ability of local actors to overcome them, depend on: 1) characteristics of services; 2) characteristics of communities; 3) political institutions; and 4) structures of policy networks. Specific propositions regarding evolution and effectiveness of interlocal cooperation are advanced and an agenda to investigate institutional collective action among local governments is presented.*

Paper prepared for the symposium, "Creating Collaborative Communities: Management Networks, Services Cooperation, and Metropolitan Governance" Wayne State University, October 31, 2005. An earlier version of this paper presented at the Innovative Governance Salon, University of Southern California, April 25 2005. I wish to thank Annette Steinacker, Margaret Levi and John Scholz for comments on an earlier version. This paper is based upon work supported by the DeVoe Moore Center Program in Local Governance at FSU and the National Science Foundation under Grant No. 0214174. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

## **Institutional Collective Action and Local Governance**

The most enduring and contentious issues debated by scholars of local government center on decentralized versus centralized systems of urban government and their implications for policy and governance. The first rounds of this contest focused on the ability of decentralized units to efficiently respond to the demands of citizens within their boundaries (Neiman, 1976, Lowery, Lyons and DeHoog 1995; Teske et al 1995). Building on the work of Tiebout (1956), advocates of decentralization advanced a body of economic theory backed by empirical support to explain competition in public good provision and the generally positive implications of intergovernmental competition for responsiveness and efficiency.

While not entirely conceding defeat at this level, advocates of consolidation shifted their focus to the regional level. The “neo-progressive” case for centralization argues that consolidation of existing government units or the imposition of regional governments with significant powers to control land use and development can better promote economic development, reduce inequality, and address social, economic and environmental externalities (Lowery 2000). This perspective views fragmented local governments as poorly positioned to provide services that require a large scale to achieve efficiencies or to address the economic development, affordable housing, environmental problems or urban sprawl (Rusk 1995; Downs 1994). The assumption that fragmentation precludes cooperation leads to conclusions that decentralized units of government will be unable to achieve economies of scale in services or deal with externalities or spillovers that occur when the policy choices in one community impose costs on another (Olberding 2002). The assumption that governmental fragmentation

limits coordination and cooperation has gone mostly unchallenged because public choice-based theories tend to focus on competition rather than cooperation or collective action. Explanations of how decentralized systems of governments cooperate to address multi-jurisdictional problems have not been clearly articulated like those for competition.

I have argued that competition and cooperation are complimentary forms of strategic interactions among local actors (Feiock 2004). Voluntary agreements emerge from a dynamic political contracting process among local government units facing a collective action problem. While informative, this work provides only an incomplete account of how decentralized systems of governance arrangements evolve and effectively cooperate to address multi-jurisdictional or regional problems. It also neglects the influence of relational networks on the emergence and success of cooperative agreements among local government units.

This paper takes initial steps to fill this lacuna by advancing a more complete institutional collective action framework for explaining interlocal cooperation among local governments. I outline several transaction problems that present obstacles to cooperative interlocal service arrangements. Agreements occur where benefits to local government actors exceed the transaction costs of bargaining. These can include information/coordination, negotiation, enforcement, and agency costs. The extent of these costs and the ability of local actors to overcome them and to forge bilateral and multilateral interlocal agreements is posited to depend on characteristics of services, communities, political institutions, and policy networks. Specific propositions regarding evolution and effectiveness of interlocal cooperation are advanced and an agenda to investigate institutional collective action among local governments is outlined.

### **Transaction Costs in Interlocal Relations**

The polycentric, decentralized character of governments in urban areas provides opportunities to address scale economies and intergovernmental spillovers (see Ostrom, Tiebout and Warren 1961). Cooperation among local governments can be viewed as collective action generalized to governmental institutions (Feiock 2004). The scope of cooperation can be small, as when neighboring jurisdictions enter into an agreement to coordinate timing of traffic signals, or large, as in regional efforts to plan infrastructure or promote regional development. In each case cooperative actions are expected to arise when potential benefits are high and the transaction costs of negotiating, monitoring, and enforcing agreement are low.

According to the Coase Theorem (1960), when transaction costs are zero, rational parties will achieve a Pareto-efficient allocation through voluntary bargaining. Application of the Coase Theorem to intergovernmental relations suggests that when bargaining costs among local governments are low, they can correct misallocations in the provision of public goods. The implication is that it is not necessary for governments to merge to deal with spillover effects among neighboring jurisdictions. When the regionally beneficial actions of one jurisdiction harm or impose costs on others, compensation could be negotiated for the affected jurisdictions.

The benefit of the institutional collective action perspective is that it considers the opportunity participants have to assess by themselves the costs and benefits of participation in the solution of mutual problems without intervention of a higher level government or the creation of a consolidated government. Existence of joint gains and

mutual agreement on the rules for the division of joint benefits guide the behavior of participants in cooperative actions. As inter-local cooperation is achieved through mutual bargaining between/among affected parties, such mutually agreed arrangements will likely to be Pareto-enhancing. Coase (1960) argued that, given a precise allocation of property rights and the absence of information and negotiation costs, two parties would arrive at an arrangement to internalize any externalities between them. Coase extended his analysis beyond two-party externalities to larger groups and to collective goods (Coase, 1988). Thus, Coase's theorem has implications for collective action situations not just local externalities. (Dixit and Olson 2000).

The possibility of voluntary agreements among governments is generally dismissed in the urban policy literatures. The rejection of voluntary agreements as a feasible option can usually be traced to transaction cost problems that make such solutions costly or impossible.

1. Information/Coordination - payoffs from cooperation and preferences over outcomes are not common knowledge, and not necessarily known even by those who might benefit from agreements;
2. Negotiation - the parties may not agree to a division of the bargaining surplus;
3. Enforcement/Monitoring - agreements are often costly to enforce; and
4. Agency - bargaining agents may not perfectly represent the interests of their constituents.

Prescriptions for regional general purpose government and consolidation of local government units, at least implicitly, are based on an assumption that the information, negotiation, enforcement, and agency costs of bargaining collective agreements exceed the gains from cooperation or at least are greater than the costs of centralized policy in a consolidated system (Carr and Feiock 2004).

Coordination is often a critical problem in that joint provision of local services. In order for actors to cooperate, they need to be able to identify opportunities for mutual gain and have good information on who may be a good potential partner. When information is not perfect and resources are limited, finding other actors in a trial-and-error fashion will be highly unproductive and inefficient. Thus, information costs prevent governments from recognizing the potential gains from joint action. This is especially a problem when service outcomes are difficult or costly to measure.

Joint gains are necessary, but not sufficient, for establishing cooperative relationships (Libecap 1989; Riker and Sened 1991). Information on the positions and likely future positions of other local actors is needed to coordinate actions for joint benefit. If costs and benefits are not common knowledge, the parties may seek strategic advantage by trying to influence one another's perceptions of the relative attractiveness of their available outside options or their own valuation of the outcomes from cooperation (Scharpf 1997). Because fixed geographical boundaries reduce local governments' flexibility in choosing service partners, they may be at greater risk from these strategic behaviors than private organizations seeking to coordinate activities.

Even where local officials have complete information, achieving agreement on formulas or procedures to allocate costs or benefits can be difficult. The negotiation of equitable distributions of benefits will be affected by asymmetries in economic and political strengths between actors (Heckathorn and Maser 1987; Steinacker 2004). Negotiated solutions will reproduce existing advantages and disadvantages. Political and social norms regarding the fairness of divisions may preclude some technically feasible outcomes from being reached. Substantial experimental evidence has found that

participants respond to the perceived fairness of a deal and sometimes reject offers where the stronger partner seems to benefit disproportionately (Roth 1995).

Bargaining positions of cities differ not only because of different service needs and production capacities, but also because local government leaders differ in their institutional powers and political security. The need for a collective service, the importance of its timing, and willingness to trade-off a certain outcomes for chance at something better shape bargaining positions in negotiating the distribution of gains from cooperation. Each local government wants joint gains from collective provision but also a large share of the benefits. Thus the likelihood of cooperation is dependent on the context of the situation, both whether the type of good produces joint gains and whether the city features lead to compatible bargaining positions.

Defection occurs if one or more of the parties do not comply with the agreement. While enforcement problems occur at implementation, the anticipation of enforcement problems adds to the costs to the process of bargaining an agreement in the first place. Preferences of the participants may diverge over time. As conditions change, the value of the cooperative agreement can change, possibly increasing the incentive of some parties renege (Keohane and Martin 1995). Cities that are on different trajectories -- a slowly declining central city or inner suburb versus rapid growth suburbs, for example -- may anticipate that their preferences regarding services will diverge over time. The higher the probability that their interests will drift apart, the less likely a contract can be struck, especially if significant differences in asset investments would be required. When jurisdictions are tempted to renege, there will be less incentive to reach agreement in the first place.

Enforcement will be costly unless there are credible commitments by the contracting parties to not defect. In addition third party enforcement of interlocal agreements is uncertain because the courts have been inconsistent in their treatment of intergovernmental agreements among local government units (Ellickson 1979). State legal doctrines of nondelegation limit the capacity of localities to overcome contacting costs and the threat of strategic behavior. Dillon's Rule precludes local governments from engaging in activities for which they have not received explicit authority from the state legislature. Nevertheless, the courts have generally upheld interlocal agreements that have been challenged as violations of home rule provisions (Gillette 2001).

Agency problems not only influence the costs of reaching an agreement but also the social benefit or efficiency of interlocal agreements. The government officials that negotiate cooperative agreements are agents, thus, principal agent problems complicate the calculus of cooperation. Agency costs arise because the preferences of public officials negotiating interlocal agreements may depart from the preferences of citizens they represent (Feiock 2002). Alternatively, specialized government agents may be at a disadvantage in their inability to commit in the name of elected overseers without public disclosure of bargaining strategies (Steinacker 2004). The extent to which agency problems are manifest can be linked to the structure, powers, and political security of public offices because these arrangements influence the value local officials place on cooperative ventures, their timing, and uncertainty in their outcomes.

Agency problems also have implications for the efficacy and performance of interlocal governance arrangements. Local officials participating in regional institutions are attentive to the local benefits and costs of regional policy. Gerber and Clark (2005)

find that these considerations shape the extent to which regional versus local benefits are emphasized in regional governance arrangements.

### **Is Institutional Collective Action Possible?**

Given the transaction costs inherent in crafting voluntary collective agreements, it is not surprising that much of the literature assumes that centralization of authority and consolidation of decentralized governmental units is necessary for effective action. Nevertheless, in practice, local governments overcome barriers to cooperation and enter into contracts to share the burdens of joint service provision more frequently than these literatures would suggest (Inman and Rubinfeld 1997).

Empirical investigations of intergovernmental revenues and expenditures reveal substantial fiscal transfers among local government units. Not all intergovernmental transfers are the product of cooperative agreements; nevertheless several studies make the claim transfers provides an indicator of interlocal cooperation (Post 2004; Kreuger 2005). Post (2004) reports extensive transfers within metropolitan areas and argues that the desire to capture economies of scale motivate these interlocal expenditures. She found fiscal transfers within metropolitan areas were positively related to the density of local governments. Bickers and Stein (2004) report that interlocal transfers are linked to the distribution of federal grant funding. Shrestha (2004) examined transfers across different service areas and focused on the characteristics of goods, particularly asset specificity and meterability, as determinates of fiscal cooperation among local governments. He reports evidence that local governments motivated by potential efficiency gains can correct interjurisdictional externalities through interlocal

cooperation. Most recently Kreuger (2005) measured revenue transfers at the city level and found amounts of interlocal transfers were linked to intercity competition.

Case study and comparative analysis of specific intergovernmental programs confirms the important role of horizontal interlocal relationships in local governance. Gillette (2002:234) describes instances of cooperative interlocal contracts between central city and suburban governments in which agreement is expressed that suburbs should subsidize central cities. Wood's study of the Kansas City metropolitan area (Wood 2003; 2006; Thurmaier and Wood 200?) and Parks and Oakersons' (1993) studies of Pittsburgh and St. Louis document numerous agreements to produce local public goods including interlocal agreements that led to suburban commitments to protect the central city's earnings tax base. Summers (2000) found evidence of regional cooperation between big cities and their surrounding suburbs in 27 metropolitan areas she examined. With the exception of Houston, each area participated in some form of regional tax sharing. More recently, Johnson and Neiman (2004) report that economic development "joint ventures with other cities" were not uncommon. A study of regional partnerships for economic development also reports that partnership agreements to share the costs and benefits of growth promotion among governments in a metropolitan area are not uncommon (Park and Feiock 2002; Park 2005).

What accounts for these cases of successful institutional collective action? Under what conditions might a region be effectively integrated through voluntary alliances, institutions and interlocal agreements? I argue that accounting for the *contextual* and *relational* elements of bargaining and collective action are necessary to understand cooperation among local governments. Recent work reports cooperative institutions have

emerged in some settings to resolve common pool resource dilemmas when potential benefits of cooperation outweighed the transaction costs of forming new institutions (Ostrom 1994; Weber 1998; Lubell, Schneider, Scholz and Mete 2002). Feiock and Carr (2001) framed the creation of special districts by local governments in a similar manner.

Institutional collective action in metropolitan areas confronts strategic interactions; each jurisdiction chooses their own policies, but their outcomes are directly affected by the decisions of other local actors (Brueckner 2001). Contextual factors shape the interests of the actors and influence transaction costs (Clingermayer and Feiock 2001). Nevertheless, relationships of trust among leaders of neighboring governments, reinforcement of cooperative norms, and development of a collective identity reduce the costs of exchange in institutional collective action situations.

### **The Institutional Collective Action Framework**

The formation and effectiveness of bilateral and multilateral agreements among local governments is a problem of institutional collective action. Voluntary agreements emerge from a dynamic political contracting process among local governments. Local government actors are posited join in interlocal agreements when anticipated benefits exceed the transaction costs. Four factors are key to understanding costs and benefits of institutional cooperation to these local actors: 1) the transaction characteristics of goods; 2) the geographic, social, and demographic position of communities; 3) the configuration of existing political processes and institutions; and 4) the structure of interlocal policy networks.

## **Transaction Characteristics of Goods**

Mancur Olson (1965) built his logic of collective action on a presupposition that the type of problem(s) that individuals attempt to solve affect the responses that they make to these problems. Such a formulation begs the question of what are the attributes or types of goods that are likely to present transaction problems for local government actors. The literatures on industrial organization and organizational economics suggest that characteristics of goods such as economies of scale in production, the meterability of service outcomes and performance, and asset specificity are salient.

Scale economies provide potential efficiency gains from coordination and joint production. Cost savings derived from economies of scale is often described as the impetus for service contracts and interlocal agreements (Fisher 1990; Post 2004). A survey by the International City and County Management Association (ICMA) reports that economies of scale are cited as a reason for cooperation by over half of the local governments participating in interlocal contracts and joint agreements (ICMA 1988). The unit cost of service production is minimized when services are produced to capacity and costs spread over a large population.

Interlocal service agreements can expand jurisdictional markets for public services allowing participant governments opportunities to take advantage of scale economies in production. This benefits both jurisdictions that are too small to achieve scale economies and larger jurisdictions that have excess capacity or can increase capacity through cooperation.

Transaction costs can be great when a relationship involves transaction specific assets or the qualities of a service are difficult to define and measure. For Williamson

(1985) asset specificity – transaction specific durable investments that can not easily be redeployed to other uses- is central to choosing among governance structures. When parties make mutual investments of specific assets it creates mutual dependence. If an agreement requires governments to make investments in specific assets or other long-term commitments, it can alter the outcomes that would be available to them if the agreement broke down in the future (Frieden 1994). For example, a compact to not to engage in incentive competition for prospective firms in return for current tax-base shares may reduce the growth opportunities available to a city in the future. For physical assets that are subject to congestion, such as shared use of a central library or landfill, both the party that provides it and the parties that contract for it are exposed to risk. The party providing the asset must make an investment greater than that necessary to cover its own needs, leaving it vulnerable to excessive costs if other participants later renege on the contract. At the same time if demand for the service increases, the party providing the good may prefer to terminate the interlocal compact in order to better serve its own constituency. The contracting participants are then forced to make an unplanned investment to develop their own asset.

Measurement difficulties increase search costs and make coordination of joint action more difficult. In addition measurement problems hinder monitoring and enforcement. Effective monitoring requires quantitative measures of what counts as an appropriate level of activity by a service provider or the extent to which the services achieve their desired impacts (Deakin, 1996). Service metering is the degree of difficulty in metering or monitoring the quantity and/or quality of output or benefits of a service (Brown and Potoski, 2003). Outcomes of some services are more difficult to

measure than others, thus cooperative outcomes should be easier to achieve for services such as sewer, water, or refuse collection that have divisible outcomes that are easily measured. For these services exclusion is complete, costs are allocated based on the benefits received, and beneficiaries' preference is invariant (Steinacker, 2004). On the other hand, for service outcomes that are less divisible and not easily measured such as fire and police services, cooperation is more difficult because exclusion is not complete. It is also difficult to write a contract for services whose outputs are not tangible or whose production is complex (Ferris and Graddy, 1986).

### **Characteristics of Communities**

Political, economic, and demographic characteristics of cities are salient to local governments' interest in, and ability to, negotiate interlocal agreements. We generally expect that more serious the underlying service problem, the larger the aggregate gains from resolving it, and the greater the likelihood of a cooperative arrangement to do so (Libecap 1989; Lubell, et. al. 2002; Ostrom 1990; Ostrom, Gardner, and Walker 1994). For example, we expect that communities experiencing economic hardship and/or with demands for large scale economic development will be most likely to cooperate in joint economic development projects with neighbors.

State level rules, internal demands and exogenous contexts such as the geographic configuration of government units and their physical, demographic, and social characteristics shape the payoffs of cooperation for citizens, and their governmental agents. Local authority to enter into interlocal agreements is derived from state constitutions and enabling legislation. The provisions of intergovernmental cooperation

laws vary tremendously across states but most are permissive and let jurisdictions undertake jointly any activity they can undertake individually (ICMA 1997). Nevertheless, state legislation defines the purposes and forms agreements can take, what types or classes of local governments can participate and requirements for its passage and ratification.

City size influences the anticipated benefits of cooperation for certain types of services because the unit cost of service production is minimized when services are produced to capacity and costs spread over a large population. Larger governments generally possess greater tax base and access to capital markets as well as a larger population of service recipients. They also may have greater ex-post monitoring capacity (Kreuger 2005). This allows them take fuller advantage of scale economies. Smaller governments, with less resources and a smaller population of service recipients are less likely to be able to realize scale economies in service production (Hirsch, 1964; Levin and Tadelius 2004). This is particularly true for capital-intensive services. Both small and large units may benefit in agreements where one unit produces service for others and scale economies are realized.

Economic, social and political characteristics of community populations shape preferences for public goods and help determine the potential gains and transaction costs of cooperation. Homogeneity of preferences both within units and across units is salient. Similar to individual collective action situations, we expect intergovernmental homogeneity across jurisdictions to signal potential common interests and service preferences. For the public officials that are the bargaining agents for their governments, knowledge that counterparts in other jurisdictions represent similar constituencies

provides a better understanding of their preferences and indicates similar political as well as economic interests.

Demographic homogeneity suggests that there will not be political and economic power asymmetries that advantage one of the parties and create problems for negotiating fair divisions of benefits. Neighboring jurisdictions that are similarly situated begin from a position mutual dependence. Scarpf (1997: 140) argues that mutual dependence can be represented as a battle of the sexes game in which both players have an interest in concluding the deal but have differences in preference for one or the other coordinated outcome. In this situation both players could achieve their second-best outcome. Since non agreement would lead to the worst outcomes for each, threats to break off negotiation would not be credible. If instead power is asymmetrically distributed, the player in an advantaged position can capture all of the benefits or no deal will be struck.

Demographic homogeneity within, not just between, units is important because it reduces agency costs for officials negotiating interlocal agreements on behalf of citizens. We expect intra-jurisdictional homogeneity will increase the likelihood of cooperation. Also, certain community characteristics may impede the capacity to engage in cooperative service provision arrangements. For example strong unions that resist contracting or administrative concern about potential loss of local autonomy and control may raise the political costs of to public officials or pursuing cooperative strategies. Homogeneity of preferences within local government units is also likely to improve the efficiency of interlocal agreements by reducing agency costs as discussed in the next section.

One of the most important contextual factors is geographic location. Neighbors have incentives to cooperate based in the technical costs of sharing services. For high transaction cost services, we might expect agreement will be sought with the same neighbor across services. Fixed geographic borders also requires repeat play among neighboring jurisdictions, and thus reduce transactions costs by creating interdependencies. Governments with common borders are not stuck in a one-shot prisoner's dilemma; the impossibility of exit means defection from cooperation exposes the defector to retaliation. The prospect of future play with the same party constrains opportunism so it is then in the interest of each government to cooperate with neighbors who cooperate. This provides opportunities for mutual assurances that each government will contribute to the provision of the collective good.

Cooperative actions with actors beyond direct neighbors can be more costly. Much recent work demonstrates that the welfare of suburbs is linked to the welfare of central cities. In theory, suburbs should be willing to join collective action that assists the central city out of a desire to protect their own financial well-being (Savitch and Vogel 2000; Stein and Post 2000). Nevertheless, each has a self-interested incentive to withhold contributions and free ride on those of others, with the result that no one engages in the conduct from which all would benefit. If joint action is advantageous because of the geographic range of spillover effects, affected governments may only participate in the agreement if all affected governments are included.

## **Characteristics of Political Institutions**

Political institutions are linked to successful interlocal cooperation because they shape the information available and the structure of incentives faced by local government officials. Administrators and elected officials each play a role in forging cooperative alliances with other local governments but they differ in their bargaining resources and institutional positions. The political and career incentives of local leaders have implications for their willingness to enter into cooperative arrangements and their attentiveness to the level and timing of collective benefits.

Contracts offer incentives for efficiency, but may also motivate the parties to act opportunistically. Certain local political system institutions have been shown to constrain risks of opportunistic behavior by both elected and appointed leaders (Feiock 2004). Gary Miller argues that the progressive reform “myth” of separation of politics and administration institutionalized in reformed council manager forms of government helps elected leaders resist opportunism (Miller 2000). Kreuger and McGuire (2005) assert that “the city manager function can be viewed as a mechanism for reducing information costs associated with policymaking in a complex environment” (2005: 11). The professional standing and employment opportunities of city managers are improved by service innovations and a record of promoting efficiency at both the city and regional levels (Feiock et. al 2004). LeRoux and Carr (2004) and Kreuger (2005) report that council- manager form of government predicts interlocal contracting. The role of professional administrators is also highlighted in Thurmaier and Woods (2002) account of interlocal agreements among governments in the Kansas City metro area. Department

directors identified opportunities for cooperation in specific service areas and the city manager, CFO and/or assistant managers put the deals together.

Although elected officials are expected to be primarily responsive to internal electoral constituencies, local leaders may also be interested in election or appointment to regional or statewide office in the future (Bickers and Stein 2004). Or, they may desire advancement within their political party or seek employment within the private sector after their term of office is complete. Such motives can lead officials promote regional interests. Gillette (2000) asserts that electoral ambitions can lead local officials to address interlocal needs even in the face of weak internal demand (2000).

Local officials' time horizons have implications for interlocal cooperation because short-term gains from defection will outweighed by the long-term gains from continued cooperation. Turnover and short election cycles result in a short term focus by local officials that makes cooperation difficult (Clingermayer and Feiock 2001). Interaction with other governments, and past cooperation between/ among city governments affects present and future cooperation because actors consider their reputation with other governments in the metropolitan area and value their networks. These network investments a kind of cooperative norm or institutional level social capital that reduces transaction costs (Park and Feiock 2003). Cooperation is more likely the longer the horizon of their relationship. In a repeated relationship, such as with geographically fixed government units, each actors stands to benefit by acquiring and preserving a positive reputation. In uncertain real world situations, the signal of reputation does more than compensate for incomplete information; reputation is a valuable social capital asset: building it up and maintaining it entail a short-run cost, and

running it down or failing to maintain it yields short-run benefit (Dixit 1996). If the forces of repetition and reputation are strong enough local governments' own incentives ensure that they will not be tempted to defect from commitment. As a cooperative norm in metropolitan areas, reputation and commitment provide considerable power to explanations of cooperation among governments in polycentric systems. Repeated relations are performed by informal and formal networks among local governments that reduce the transaction cost of investments in reputation making interlocal cooperation easier.

Institutional homogeneity, similarity of political institutions across government units in a region can also facilitate exchange. The homophily thesis argues that actors tend to cluster with others of similar values, norms and beliefs characteristics (Carley 1991 Sabatier et al 1999). Much of the local public administration literature suggests that professional city managers share a common set training, experience and orientation that leads to common values and an emphasis on efficiency and professionalization that are reinforced by the professional organizations in the field (Frederickson 200?). We expect local leaders will tend to align with others with whom they share similar professional values towards the protection of the resources in the area or not.

### **The Structure of Policy Networks**

A contractual arrangement between two local government units constitutes a dyadic relationship. If each unit also participates in other agreements with other local governments, together, the dyadic relations form a macro-level regional governance structure that comprises a set of actors in a social network (see Thurmaier and Wood

2002). Over time embedded relationships with other local governments accumulate into a regional network that invests the reputation and reciprocity of information in the reliability and competencies of prospective partners (Gulati and Gargiulo 1999). Cities change strategy as a result of learning from prior experiences and encounters and their expectations of future dealings with each other. The presence of a contractual link is voluntary in that non participation, even if costly, is always an option. Local governments maintain their relationships when their benefits exceed the expected value of one-time interactions.

Local governments bargain the terms of interlocal contracts in light of the information they have available (Maser 1988). The resulting governance structure is the product of a series of negotiated agreements over governance arrangements and substantive benefits. Rather than relying on centralized authority, local governments themselves negotiate the technologies and strategies to produce desired outcomes, the obligations of the parties, and the timing and duration of the agreements. Information impactedness because of uncertainty and opportunistic behavior can be minimized in this process by repeated interactions among multiple neighboring governments.

As described above, the formation of effective regional governance is constrained by the transaction costs of developing and maintaining contractual arrangements. The existing structure of formal and informal agreements among local governments reduces these transaction costs problems by increasing available information about each other's conduct specified in the agreements and enhancing the credible commitments to fulfill those agreements. By spanning the metropolitan area, interlocal agreements provide information about local governments' policies and programs in relation to others within

the region and potential implementation problems. Regional governance, consisting of interlocal contractual arrangements, also increases credibility of commitments by transforming short term interlocal relations into repeated games in which a reputation for reciprocity and trustworthiness can mitigate problems of opportunism involved in a single interaction, especially with localities or organizations that are not located immediately across the jurisdictional boundary.

Scholz, Feiock, and Ahn (2005) advanced two general propositions regarding the role of network structures in mitigating the problems of institutional collective action. One emphasizes tightly-clustered or “strong tie” relationships capable of enhancing the credibility of commitments among network members, which they called “credibility-clustering.” The other emphasizes the role of extensive “weak tie” relationships linking diverse organizations in enhancing shared information required to coordinate collective decision, which they called “information-bridging.”

Four distinct network structures are identified here and their implications for the coordination, information, negotiation, and enforcement costs of institutional collective are examined. Scholz et al (2005) described coordination as a critical problem in organizing joint projects among local actors in estuaries. Availability of information on who may be a good partner is necessary for local government units to cooperate with each other. Where coordination is problematic we expect that centralized networks with a central actor serving as a hub or network broker will emerge. A hub is defined as exhibiting a value on both degree and betweenness centrality. Provan and Milwards’ (2001) investigation of networks of mental health service providers in four communities identified just this type of network structure.

At a micro level we want to know what network structures local actors seek, and why they choose those configurations rather than others. Bernardo and Scholz (2005) suggest one solution to coordination problems is to link with the more popular “well connected” organizations in the area. The logic is that local governments that have interlocal agreements with many other local government units will be better suited to provide coordination among those actors facing comparable uncertainty conditions.

The value of such a link might be particularly high if the link creates a “bridge” to a government with connections to other governments that are not part of the first governments network (Burt 2005). In many instances, coordination of policy actions across a large number of units has the potential to increase benefits and performance for each government. Information-bridging links a unit with others that do not share contractual relationships with common partners. This allows local governments to investigate a broader set of possible gains from other local governments and to reap the advantage of innovation not available within a highly clustered network. This idea builds on Burt’s theory “structural holes” which argues that information bridging provides advantages when negotiating collaborative agreements.

Ties that bridge structural holes are beneficial for the flow of information and can reduce coordination/information costs. Nevertheless, they may increase bargaining and enforcement costs if there is a risk that an actor can use this brokerage position to opportunistically control information. What Burt calls an opportunity structure can also be interpreted as a power structure. Burt points out that brokerage is about coordinating people between whom it would be valuable, but risky, to trust. (Burt 2005: 3-4).

Figure 1a

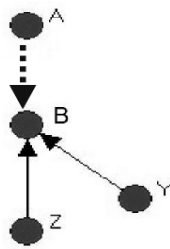


Figure 1b

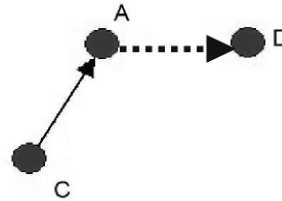


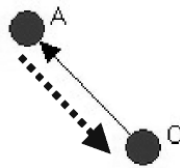
Figure 1a depicts a relationship in which faced with a coordination problems, unit A will seek a link directed toward the most popular unit in the network. Figure 1b depicts a relationship in which Unit A will seek ties that link other pairs of otherwise unconnected actors, hence increasing her betweenness centrality and reducing coordination costs.

Bargaining costs are reduced by reciprocal relationships in dyads. By entering into agreements with a government it has existing service agreements with, a local government unit can strengthen its relationship with this partner to create the more solid conditions for cooperation that develop from mutual exchange to facilitate agreement to a division of the bargaining surplus. Reciprocal relationships provide the opportunity for “side payments” if they link agreements across issue areas. This type of log rolling may facilitate interlocal agreements (Stein 1980).

In Figure 2, unit A could strengthen the existing relationship in which C already contracts with A by reciprocating C’s contracts. This is accomplished through the reduction of the transaction costs that may exist in a dyadic reciprocal relationship (Monge and Contractor 2003; Bernardo and Scolz 2005). In such a relationship, the costs of knowing how the counterpart may behave are reduced, since the establishment of

a link running in both directions presupposes wider access to information on what type of behavior is expected and the political and social norms regarding the fairness of divisions. Previous alliances shape new alliances through information about current or potential partners capabilities and trustworthiness, timing and referrals (Burt 2005: 192). In Figure 2, where there are differences in bargaining positions that create division difficulties, unit A will seek reciprocal ties to others with whom it has existing interlocal agreements. Bundling agreements across issues can be especially helpful if the government which is in advantaged position regarding one service is in a disadvantaged position with others.

Figure 2

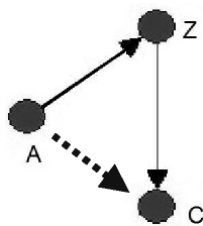


Cowell (2004) argues that formal contractual relationships are the organization level equivalent of social capital because these organizational relationships foster trust and obligations. The credibility-clustering relationship suggests that the credibility advantage of a clustered network becomes increasingly important when there is a potential problem of defection by local governments involved in the delivery of collective goods. Threats of defection impose costs on those who have already invested resources in collective efforts. A large network of connected actors adds greatly to the incentives to maintain trustworthiness because of the costly investments necessary to rebuild them. A clustered network structure reduces enforcement costs because information on the efforts,

contributions and behaviors of a contacting government can be made available to and sanctioned by other potential partners. A highly clustered network has the ability to impose constraints on shirking and opportunism that increase the stability of a regional governance structure. A highly clustered dense network structure contributes to social capital by providing extensive monitoring mechanisms, and facilitating mutual reciprocity, trust, and conformance to the rules of the game (Coleman 1988).

The transitive triplet argument illustrates this relationship. Transitivity in a relationship may be a good indicator of social trust being built in a social context (see Carpenter et al 2004). In Figure 3, where unit A already has an interlocal agreement with Z and actor Z in turn has an agreement in place with C. If the costs of monitoring and enforcement are otherwise high, it is the interest of unit A to initiate an interlocal agreement with C. When faced with high enforcement costs, local governments will seek to form transitive triplets.

Figure 3



One strategy for testing these hypotheses is to implement a maximum likelihood estimator to analyze the impact of selected network characteristics on observed changes in network structure. In particular, we want to know whether the existing patterns of agreements alter the basic utility calculations of local governments in entering into new

agreements. This estimation model assumes that changes in observed networks are manifestations of an underlying continuous Markov process in which network actors make decisions about adding or breaking network connections at randomly-determined intervals. When a choice opportunity occurs, ego selects the change that optimizes utility based on the existing network structure at the time of choice (which is not the same as the structure at the moment of observation). This assumes that this change is not forward-looking or coordinated with others, but simply reflects the immediate utility-optimizing choice of the individual. Given a set of selected variables representing hypotheses about the utility function, we can estimate both a rate function (for choice opportunities) and utility function that maximizes the likelihood of observing the transitions between observed networks (Snijders 2001).

### **Discussion**

Institutional collective action provides a framework for studying interlocal cooperation in fragmented metropolitan area by focusing attention not only the economic scale and costs and benefits of interlocal cooperation, but also their transaction costs. Transaction costs can be reduced by institutional arrangements both formal and informal that increase the availability of information, reduce obstacles to bargaining and reinforce social capital that is a product of networks and political institutions. While recent work has examined the implications of network structures for service performance (Agranoff and McGuire, Provan and Milward Meier and O'Toole), the influence of relationships among local government units on the emergence of cooperation has not been systematically addressed.

Much of the urban politics and administration literatures depict the governance of metropolitan areas as a choice of between competition and consolidation. This is a false dichotomy; both competition and consolidation have limited promise for efficiently addressing externality problems in local services. Cooperation can compliment competition in decentralized metropolitan areas where voluntary agreements emerge from a dynamic political contracting process among local government units. While the record is incomplete the evidence to date, the examples of interlocal cooperation described earlier and recent empirical work provide cause for skepticism of the conclusions that governmental fragmentation is destructive of regional cooperation. These studies also highlight the importance of the endogenous networks relationships that result from institutional interactions. The conceptual handle if institutional collective action helps to grasp some of the dynamics of decentralized systems of governance and to identify the various ways governments cooperate and compete. Network structures can facilitate efforts to overcome information negotiation and enforcement problems and facilitate inter-organizational learning.

Nevertheless, much network research has focused on relationships between actors to the neglect of actor attributes. Work on networks derived from the sociological tradition in particular focuses on the structure of ties in which actors are embedded and directs attention away from the attributes of actors that shape their interest in cooperation. I argue that both the attributes of actors and relations among them need to be accounted for in explanations of how and why they decide to cooperate with each other.

## Who Governs?

The discussion that opened this paper focused on the long standing debate in political science and public administration about the consequences of centralized versus decentralized systems of government. The ICA framework can shed new light on this question to provide insights into the emergence and evolution of the structure of governance in metropolitan areas. It also begs the even bigger question of “who governs metropolitan areas.” Robert Dahl (1961) asked this question with regard to cities almost 45 years ago. The who governs question underlies both the literatures on government versus governance in metropolitan areas and social networks analyses, but the question had not been addressed directly (for an exception see Hall 2001). The ICA focus on actors, institutions, provides tools for going beyond a snapshot of who governs and how to investigate the evolution and success of governing arrangements.

### **An Agenda for the Study of Institutional Collective Action**

The papers presented at this meeting will go a long way in filling the gaps in our knowledge of the frequency, forms, and structure of horizontal federalism in the U.S. Taken together the empirical analyses, drawn from four very different states, provide the most complete picture of the interlocal relationships available. The next steps will be to empirically test explanations for the emergence and evolution of interlocal service networks and to investigate how the structure of interlocal networks influence policy outcomes and performance.

Understanding the dynamics of the evolution of interlocal service arrangements needs to be a priority for the study of horizontal federalism. Voluntary agreements

emerge from a dynamic political contracting process among local government units. The network of contractual arrangements constitutes a macro-level regional governance structure that comprises a set of actors in a social network. There is an extensive literature applying social network analysis to policy networks and their implications, including local government service networks (see Thurmaier and Wood 2002; Provan and Milward 2001). However, this work has focused on the consequences of networks for policy outcomes, to the neglect of how networks emerge or evolve.

Empirical investigations of institutional collective action being supported by the Devoe Moore Center at Florida State University will begin to fill this lacuna by testing network based explanations for the emergence and evolution of intelocal service agreements among local governments. This work focus on how the interests and incentives of local policy actors shape the emergence and evolution of local governance networks and investigates the motivations of local government actors for seeking specific networks structures where networks and actors preferences evolve together in a dynamic relationship. Local governments change strategy as a result of learning from prior experiences and expectations of future dealings with each other. The formation of effective regional governance is constrained by the transaction costs of developing and maintaining networks of contractual arrangements. The existing structure of networks of agreements among local governments influences these transaction costs problems by providing information about other actors and their strategies and the credibility of commitments to fulfill their contractual obligations.

One study building on Manoj Shersta's paper presented at this meeting investigates the scope and evolution of intelocal service networks in Pinellas County

Florida. Its 25 general purpose governments have a long history of mutual agreements in service delivery and thus it provides an excellent laboratory to investigate the dynamics of interlocal service networks more than 400 agreements covering a period of more than 25 years. This allows empirically investigate the dynamics of interlocal cooperation in local public service delivery and test specific propositions regarding network structure by estimating the implicit utility functions of local actors that accounts for observed changes in the structure of interlocal agreements. This procedure allows us to account for actor characteristics on the structure of networks as well as the influence of network structure on actor characteristics (Shrestha and Feiock 2006). Simon Andrew's work will be extended to investigate network based explanations for change in the scope and form of network ties over time. His work will test proposition about how the structure of relationships and the institutional forms that public safety agreements take influence whether cities pursue service new service linkages, their choice of partners, and the institutional forms of new agreements.

Park and Feiock have undertaken several empirical projects that investigate institutional collective action in the broad area of economic development. They have applied the ICA framework to examine the formations of regional partnerships (Park and Feiock 2004; Feiock, Johnson and Tao 2004) and joint development ventures undertaken by local governments (Feiock Park and Steinacker 2005). A survey of development officials for all local governments in the Orlando and Tampa metropolitan areas is in progress. The instrument identifies the competitive and cooperative dyadic relationships among governments and the types of joint development projects they engage in.

The final step will be to link the structure of interlocal service networks to governance and policy outcomes. While this has been the subject of a tremendous amount of scholarship in the last few years, this work on “network management” is unsatisfactory because it focuses on designed rather than emergent networks, it does not address the endogenous nature of relationships, it often does not allow comparisons across networks and network structures and it, does not systematically examine networks and performance across different types of policy.

Each of the empirical projects described above can be extended to examine endogenous relationships between networks and performance over time and across various types of policies. Building from this work will provide a stronger micro level foundation for linking the interests of actors with service networks and outcomes. An ongoing project by Lubell Feiock and Scholz will link the structure of interlocal service networks to land use outcomes. The structure of interlocal planning agreements contributes to changes to local land use institutions embodied in amendments to local comprehensive plans. Additional work will focus on developments of regional impact (DRI) in Florida. Surveys of participants in the DRI process will measure the structural characteristics of networks which will then be linked to the indicators of project success.

## References

- Akimov, Vladimir and Mikhail Soutchanski. 1994. "Automata Simulation of N-Person Social Dilemma Games." *Journal of Conflict Resolution* 38:138-148.
- Allard, Scott, Nancy Burns, and Gerald Gamm. 1998. Representing urban interests: The local politics of state legislatures. *Studies in American Political Development* 12 (2): 267- 302.
- Alston, L. J. 1996. Empirical work in institutional economics. In *Empirical studies in institutional change*, edited by L. J. Alston, T. Eggertsson, and D. C. North. Cambridge: Cambridge University Press.
- Andreoni, James and John H. Miller. 1993. "Rational Cooperation in the Finitely Repeated Prisoner's Dilemma: Experimental Evidence." *Economic Journal* 103:570-585
- Berardo Ramiro and John T. Scholz 2005. "Micro-incentives and the Dynamics of Policy Networks" Prepared for presentation at the American Political Science Association annual meeting, September 1-4, 2005. Washington, DC.
- Bicchieri, Cristina. 1990. "Norms of Cooperation." *Ethics* 100:838-861
- Bickers, Kenneth N., and Robert M. Stein. 2004. Inter-local cooperation and the distribution of federal grant awards. *Journal of Politics* 66: 800-822.
- Brookings Institution. 2002. *Beyond merger: A competitive vision for the regional city of Louisville*. Washington D.C.: Brookings Institution Press.
- Burns, Nancy. 1994. *The formation of local governments: Private values and public institutions*. New York: Oxford University Press.
- Burt, Ronald S. 2005. *Brokerage and Closure: An Introduction to Social Capital* New York: Oxford University Press.
- Burt, Ronald S. 1999. "Private Games are too Dangerous," *Computational and mathematical Organization Theory*, 5:311-341
- Carley, Kathleen. 1991. "A Theory of Group Stability". In *American Sociological Review* 56: 331-354.
- Carpenter, Daniel P., Kevin M. Esterling, and David M. J. Lazer. 2004. "Friends, Brokers, and Transitivity: Who Informs Whom in Washington Politics?" In *The Journal of Politics* 66: 224-246.
- Carr, Jered B. and Richard C. Feiock. 2004. *Reshaping the Local Landscape: Perspective on City County Consolidation and its Alternatives*. Armonk, NY: M.E. Sharpe, in press.
- Clingermayer, James C. and Richard C. Feiock 2001. *Institutional Constraints and Policy Choice: An Exploration of Local Governance*. NY. Albany. SUNY press.
- Coase, Ronald. 1960. The problem of social cost. *The Journal of Law and Economics* 3 (1), 1-44.

- Coase, Ronald. 1988. *The Firm, The Market and The Law*, University of Chicago Press, Chicago.
- Coleman, James S. 1990. *Foundations of social theory*. Cambridge, MA: Cambridge University Press.
- Cowell, Kenneth 2004. "Partner Selection and Network Resources"  
<http://mba.tuck.dartmouth.edu/pages/faculty/andrew.king/Papers/Cowell.pdf>
- Davis, D. Douglas and Charles A. Holt, 1992. Equilibrium Cooperation in Two Stage Games: Experimental Evidence, Working Paper, Virginia Commonwealth University
- Davis, D. Douglas and Charles A. Holt. 1993. *Experimental Economics*, Princeton, NJ: Princeton Univ. Press
- Deneckere, Raymond, and Carl Davidson. 1985. Incentives to Form Coalitions with Bertrand Competition. *The RAND Journal of Economics* 16 (4): 473-486.
- Dixit, Avinash K. 1996. The Making of Economic Policy: A Transaction-Cost Politics Perspective. MIT Press.
- Dixit, Avinash and Mancur Olson 2000. "Does voluntary participation undermine the Coase Theorem?" *Journal of Public Economics* 76: 309-335
- Dodge, W. 1990. Regional problem solving in the 1990s: Experimentation with local governance for the 21<sup>st</sup> century. *National Civic Review* (July/August): 354-366.
- Downs, Anthony. 1994. *New Visions for Metropolitan America*. Washington D.C.: The Brookings Institution.
- Feiock, Richard C. 2004. *Metropolitan Governance: Conflict, Competition and Cooperation*. Washington D.C.: Georgetown University Press.
- Feiock Richard C. 2002. A Quasi-Market Framework for Local Economic Development Competition. *Journal of Urban Affairs* 24: 123-42.
- Feiock Richard C. and Steinacker Annette, 2003. *A Bargaining Framework for Local Development Policy Choices*. Presented at Annual American Political Science Association Meeting 2003, Philadelphia August 26-31.
- Feiock, Richard C., and Jered B. Carr. 2001. Incentives, entrepreneurs, and boundary change: A collective action framework. *Urban Affairs Review* 36 (January): 382-405.
- Friedman, J., 1971. Noncooperative Equilibrium for Supergames, *Review of Economic Studies* 38,1-12
- Friesma, H.P. 1979. "Interjurisdictional Agreements in Metropolitan Areas," *Administrative Science Quarterly* 3: 242-52.
- Gainsborough, Juliet F. 2001. *Fenced off: The suburbanization of American Politics* Washington, D.C.: Georgetown University Press.

- Gerber, Elizabeth and Clark C. Gibson 2005. "Balancing Competing Interests in American Regional Government" paper presented for the Program in American Democracy Speaker Series, Norte Dame University, February 1 2005.
- Gillette Clayton P. 2000. "Regionalization and Interlocal Bargains," *NYU Law Review* 76: 190-271.
- Granovetter, Mark. 1973. "The Strength of Weak Tie." *American Journal of Sociology*. 78: pp. 1360-1380.
- Gulati, Ranjay and Harbir Singh. 1998. "The Architecture of Cooperation: Managing Coordination Costs and Appropriation Concerns in Strategic Alliances," *Administrative Science Quarterly* 43(4): 781-814.
- Gulati, Ranjay and Martin Gargiulo 1999. "Where Do Interorganizational Networks Come From?" *American Journal of Sociology*, 104 (5): 1439-1493.
- Hamilton, David. 1999. *Governing Metropolitan Areas: Responses to Growth and Change*. New York: Garland Publishing.
- Hall, P and R. Taylor. 1999. "Political Science and the Three Institutionalisms", *Political Studies* (44): 936-57
- Heckathorn, Douglas, and Steven Maser. 1987. Bargaining and the Sources of Transaction Costs: The Case of Government Regulation. *Journal of Law, Economics, and Organization* 3: 69-98.
- Hardin, Russell. 1982. *Collective Action*. Baltimore: Johns Hopkins University Press.
- Hirschman, Albert O. 1970. *Exit, Voice, and Loyalty*: Cambridge, MA: Harvard Univ. Press.
- Inman, Robert and Rubinfeld, Daniel. 1997. Rethinking Federalism. *Journal of Economic Perspectives* 11: 43-64
- Johnson, Martin and Max Neiman 2004. "Courting Business: Competition for Economic Development among Cities" in Richard C. Feiock ed. *Metropolitan Governance: Conflict, Competition and Cooperation*. Washington D.C.: Georgetown University Press.
- Keohane, Robert and Lisa Martin. 1995. The Promise of Institutional Theory. *International Security* 20 (1): 29-51.
- Ledebur, Larry C., and William R. Barnes. 1992. *Metropolitan disparities and economic growth*. Washington, D.C.: National League of Cities.
- Lipecap, Gary. 1996. Economic variables and the development of the law: The case of western mineral rights. In *Empirical Studies in Institutional Change*, edited by Alston, Eggertsson, and North. New York: Cambridge University Press.
- Libecap, Gary. 1989. *Contracting for Property Rights*. New York: Cambridge University Press.
- Lowery, David. 2000. A transaction costs model of metropolitan governance: Allocation vs. redistribution in urban America. *Journal of Public Administration Research and Theory* 10: 49-78.

- Lubell, Mark, Mark Schneider, John Scholz, and Mihriye Mete. 2002. Watershed partnerships and the emergence of collective action institutions. *American Journal of Political Science* 46 (1): 148-163.
- Lubell, M. and J. T. Scholz. 2001. "Cooperation, Reciprocity, and the Collective Action-Heuristic" *American Journal of Political Science*. 45: pp. 160-178.
- McCabe, Barbara. 2004. Special districts as an alternative to consolidation. In *Reshaping the local landscape: Perspectives on city-county consolidation and its alternatives*, edited by Jered Carr, and Richard C. Feiock. Armonk, N.Y.: M.E. Sharpe.
- Michael Mintrom, 1997, "Policy Entrepreneurs and the diffusion of Innovation" *American Journal of Political Science*, Vol. 41, No. 3. (Jul., 1997), pp. 738-770.
- Michael Mintrom, Sandra Vergari, 1998, "Policy Networks and Innovation Diffusion: The Case of State Education Reforms". *The Journal of Politics*, Vol. 60, No. 1. (Feb., 1998), pp. 126-148
- Monge, Peter R., and Noshir S. Contractor. 2003. *Theories of Communication Networks*. New York, NY: Oxford University Press.
- Neiman, Max. 1976. "Social Stratification and Governmental Inequality", *American Political Science Review* 70 (March): 149-154.
- Oakerson, Ronald. 1999. *Governing local public economies: Creating the civic metropolis*. Oakland, CA: ICS Press.
- Oakerson, Ronald. 2004. "The Study of Metropolitan Governance" in Richard C. Feiock, *Decentralized governance: The organization of local governments in metropolitan areas*. Washington D.C.: Georgetown University Press.
- Olberding, Julie C. 2002a. Does regionalism beget regionalism? The relationship between norms and regional partnerships for economic development. *Public Administration Review* 62: 480-91.
- Olberding, Julie .Cencula. 2000. *The formation, structure, process and performance of regional Partnerships for economic development in metropolitan areas*. Ph.D. Dissertation, University of Kentucky, Lexington.
- Olson, Mancur. 1965. *The logic of collective action*. Boston, MA: Harvard University Press.
- Orfield, Myron. 1997. *Metropolitics: A Regional Agenda for Community and Stability*. Washington, D.C.: Brookings Institution.
- Ostrom, Elinor. 1998. A behavioral approach to the rational choice theory of collective action. *American Political Science Review* 92 (1): 1-22.
- Ostrom, Elinore 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*, New York: Cambridge University Press.
- Ostrom, Elinor, Roy Gardner, and James Walker. 1994. *Rules, Games, and Common-Pool Resources*. Ann Arbor: University of Michigan Press.
- Ostrom, E., V. Ostrom and R. Bish. 1988. *Local Government in the United States*. San Francisco: Institute for Contemporary Studies Press.

- Palfrey, T. R., and Rosenthal H. 1992. Repeated Paly, Cooperation and Coordination: An Experimental Study, *Working Paper*, California Institute of Technology.
- Park, Hyung Jun and Richard Feiock, 2003, Social Capital and Formation of Regional Partnership. Paper presented at the Annual Meeting of the American Political Science Association Annual Meeting, August 27-30, 2003, Philadelphia MA.
- Park, Hyung Jun and Richard Feiock, 2003. Social Capital and The Tradeoff Between Environment and Development. *International Journal of Economic Development*.
- Parks, Roger B. and Ronald J. Oakerson 1989. "Metropolitan Organization and Governance: A Local Public Economy Approach," *Urban Affairs Quarterly* 25, no. 1 (September), pp. 18-29.
- Parks, Roger, and Ronald Oakerson. 1993. "Comparative Metropolitan Organization: Service Production and Governance Structures in St. Louis, MO, and Allegheny County, PA." *Publius* 23: 19-39.
- Peirce, Neal, Curtis Johnson., and John Hall 1993. *Citistates: How Urban America Can Prosper in a Competitive World*. Washington, D.C.: Seven Locks Press.
- Post, Stephanie. 2002. Metropolitan area governance and institutional collective action. Paper presented DeVoe Moore Symposium, October 5-6, Florida State University at Tallahassee, Florida.
- Provan, Keith G., and H. Brinton Milward. 1995. "A Preliminary Theory of Interorganizational Network Effectiveness: A Comparative Study of Four Community Mental Health Systems". In *Administrative Science Quarterly* 40: 1-33.
- Reich, Robert. 1991. *The work of nations*. New York: A. A. Knopf.
- Riker, William and Itai Sened. 1991. A Political Theory of the Origin of Property Rights: Airport Slots. *American Journal of Political Science* 35 (4): 951-969.
- Rusk, David. 1993. *Cities Without Suburbs*. Washington, D.C.: Woodrow Wilson Center Press.
- Sandler, Todd. 1992. *Collective Action*. Ann Arbor: University of Michigan Press.
- Savitch, Hank V., David Collins, Daniel Sanders, and John P. Markham. 1993. Ties that bind: Central cities, suburbs and the new metropolitan region. *Economic Development Quarterly* 7: 341-357.
- Savitch, Hank V., and Vogel, Ronald. 2000. Metropolitan consolidation versus metropolitan governance in Louisville. *State and Local Government Review* 32 (3): 198-212.
- Schneider, Mark., and Paul Teske with Michael Mintrom. 1995. *Public entrepreneurs: Agents for change in American government*. Princeton: Princeton University Press.
- Schneider, Mark, John Scholz, Mark Lubell, Denisa Mindruta, and Matthew Edwardsen. 2003. "Building Consensual Institutions: Networks and the National Estuary Program". In *The American Journal of Political Science* 47: 143-158.

- Scholz, John T., Ramiro Berardo, and Bradley Kile. 2005. "Do Networks Enhance Cooperation? Policy Communities, Issue Networks, and Joint Environmental Projects". Working Paper.
- Snijders, Tom A.B. 2001 [The Statistical Evaluation of Social Network Dynamics](#). in *Sociological Methodology* edited by M.E. Sobel and M.P. Becker. Boston and London: Basil Blackwell, pp 361-395.
- Stein. Robert M. and Stephanie Shirley Post. 2000. "State Economies, Metropolitan Governance, and Urban-Suburban Economic Dependence," *Urban Affairs Review*, Vol. 36, No. 1, 46-60 .
- Steinacker, Annette. 2004. "Game Theoretic Models of Metropolitan Cooperation" in Richard C. Feiock ed., *Metropolitan Governance: Conflict, Competition and Cooperation*. Washington D.C.: Georgetown University Press.
- Steinacker, Annette. 2003, Model of Metropolitan Cooperation: The Case of Economic Development, 2003 Presented Midwest Political Science Annual Conference Paper. Chicago, April 4-8 2003.
- Steinacker, Annette. 2002. The Use of Bargaining Games in Local Development Policy. *The Review of Policy Research* 19 (4): 120-153.
- Stephens. G. R. and N. Wickstron 1999. *Metropolitan Government and Governance Theoretical Perspectives, Empirical Analysis, and the Future*. Oxford University Press.
- Summers, Anita 2000. "Regionalization Efforts between Big Cities and Their Suburbs: Rhetoric and Reality," Anita A. Summers in Greenstein, Rosalind and Wim Wiewel (ed.) *Urban-Suburban Interdependencies*. Cambridge: Lincoln Land Institute.
- Tiebout, Charles 1956. "A Pure Theory of Local Expenditures," *Journal of Political Economy* 64:416-424.
- Thurmaier, Kurt and Curtis Wood 2004. "Interlocal Agreements As An Alternative to Consolidation" in Jered Carr and Richard C. Feiock, *Perspective on City County Consolidation and its Alternatives*. Armonk, NY: M.E. Sharpe.
- Thurmaier, Kurt and Curtis Wood 2002. "Interlocal Agreements As Social Networks: Picket Fence Regionalism in Metropolitan Kansas City," *Public Administration Review* 62:5, 585-98.
- Tullock, Gordon. 1985. "Adam Smith and the Prisoner's Dilemma," *Quarterly Journal of Economics*, 99:1073-1081
- Voith, Richard. 1998. Do suburbs need cities? *Journal of Regional Science* 38 (3): 445-464.