**The Political Market and Municipal Service Production Choices**

**Abstract**

While research shows that transaction risks arising from asset specificity and measurement difficulty of a service influence cities’ choice of service delivery modes, the form of government is often treated as an independent control as if the elected mayors or the appointed managers are unaffected by the incentives the form of government create when dealing with the transaction risks. We advance a theory that form of city government moderates the link between transaction risks in alternative service delivery and cities’ choice of production modes. The theory follows the political market framework which suggests that the mayor-council form is aligned with high-powered electoral incentive whereas the council-manager form is allied with low-powered efficiency incentive. These incentives affect how the city executives weigh risks and make choices. Our analysis of service production for 43 services in 109 Michigan cities finds support for the theory. The moderating effect occurs at the margin of the transaction risks. Appointed managers prefer external production over in-house even when the transaction risks are high, but mayors are likely to move towards in-house from external contract because of fear of push back from constituents.

**The Political Market and Municipal Service Production Choices**

**Introduction**

The choices municipal officials make in how services are to be produced have important operational consequences for their governments, because these decisions are expected to impact the cost and quality of public services. For example, services contracting may reduce costs, but increase accountability concerns over in-house production. In some instances, in-house production may increase costs and reduce quality over contracting with other organizations, but decrease concerns about monitoring and enforcement of commitments. And choosing among the sectors (e.g., other governments, nonprofits, and for-profit organizations) involves many of the same tradeoffs. The presumption that elected executives will make different decisions than appointed executives is widespread in the empirical literature on municipal service production decisions, where form of government (FOG) is regularly included as an explanatory variable in analyses of decisions by municipal governments to contract out services, the sectors they choose when they do, and whether they engage in partial or complete contracting (Carr 2015). However, despite this practice, if and how the service production decisions of elected and appointed executives differ is not well understood.

The lack of progress on this important question results from two major weaknesses in this literature. First, empirical assessments of the role that a municipality’s form of government plays in service production decisions are inconclusive. Roughly half of the studies examining form of government’s link to service production decisions report that form is not statistically related to these decisions (Morgan, Hirlinger, and England 1988; Lamothe, Lamothe, and Feiock 2008; Carr, LeRoux, and Shrestha 2009; Kwon and Feiock 2010; Kwon, Lee, and Feiock, 2010; Shrestha and Feiock 2011), and the remaining studies report conflicting findings about its effect on the use of contracting generally (Hefetz and Warner 2004; Levin and Tadelis 2010; Hefetz, Warner, and Vigoda-Gadot 2012) and preferences for specific sectors for the production of specific services (Brown and Potoski 2003; Feiock and Jang 2009; Hefetz and Warner 2012).

A second reason for the limited progress made by this literature is that the authors have not done the necessary theorizing on this topic. The role played by the municipality’s form of government is rarely a central focus in this literature, but instead serves as a control variable in the analysis. This practice has permitted these authors to avoid the work of developing a strong theoretical basis to explain how form of government might influence service production decisions. In place of theory, many authors offer vague assertions of differences in decisions due to the adoption of “professional management” practices by “administratively-oriented” council-manager governments or from the “greater politics” and “voter orientation” in mayor-council governments (Hefetz and Warner 2012; Hefetz, Warner, and Vigoda-Gadot 2014). These kinds of assertions have deep roots in the literature on municipal administration in the U.S., despite the lack of empirical evidence supporting performance differences between council-manager and mayor-council governments (Carr 2015). In addition, differences in form are about more than the presence of professional management. Differences in form involve more fundamental issues about …….. (Svara and Nelson 20XX).

This research addresses this important gap by using the “political market” framework (PMF) developed by Richard Feiock and colleagues (Feiock, Lubell, and Lee 2014; Lubell, Feiock, and Rameriz de la Cruz 2009) to provide a theoretical basis for why the service production decisions made by municipal governments led by an elected executive should be expected to differ from municipalities where the top executive official is appointed. The PMF conceptualizes policy decisions as an exchange between government policy suppliers and interest group policy demanders, a process where municipal officials provide support for policies in exchange for instrumental political resources from groups seeking the policies. Policy choices emerge from the interaction of the forces shaping demands for policies by residents, municipal employees, and local interest groups and the supply of policies by municipal leaders (Feiock, Lubell, and Lee 2014). A key insight of this framework is that political institutions affect the supply-demand equilibrium through how they “amplify or mute the influence of different interest groups on policy decisions” (Lubell, Feiock, and Rameriz 2009: 650). The PMF asserts that the mayor-council form of government creates high-powered incentives for elected executives to adopt policies that provide them with opportunities for credit claiming and improved prospects for reelection. Analysts have used the political market framework to understand policy decisions in economic development (Sharp 1991; Feiock and Kim 2000; Feiock, Jeong, and Kim 2003; Kwon, Berry, and Feiock 2009; Hawkins 2010; Hawkins and Feiock 2011; Sharp and Mullinix 2012), land use (Lubell, Feiock, and Rameriz de la Cruz 2009; Rameriz de la Cruz 2009), and environmental sustainability (Krause 2011, 2012, 2013; Sharp, Daley, and Lynch 2011; Daly, Sharp, and Bae 2013; and Hawkins and Wang 2013).

We believe the PMF provides an opportunity to overcome the two major shortcomings we have identified in the empirical literature on municipal contracting by focusing attention on the basic behavioral incentives of key decision makers and by conceptualizing the role played by the municipal institutions defining form of government as moderating the effects of other factors on these decisions. The framework provides a more promising foundation for theory building about service production decisions by identifying differences in the incentives faced by these two different types of municipal executives rather than a general presumption that professional management practices are absent in mayor-council governments. Given the extensive professionalization of municipal governments in recent decades documented by public administration scholars (Frederickson, Johnson, and Wood 2003; Carr and Karuppusamy 2009; Wallker and Andrews 2015), it is likely that there are no longer fundamental differences in the adoption of professional management practices in governments of different forms. Instead, the use of effective management practices likely depends upon factors other than form, such as differences in resources and scale of the organization. Carr (2015) has proposed that differences in operational performance that are attributed to form of government may instead be due to differences in the decisions encouraged by its form.

We also believe that the PMF may improve empirical research on service contracting by encouraging scholars to examine the conditional effects of key political institutions such as form of government and election rules. “Different types of political institutions will favor different types of interests, either enhancing or reducing the ability of interests to influence patterns of urban growth” (Lubell, Feiock, and Ramirez da la Cruz 2009: 650). PMF analyses of municipal expenditures have shown that form of government affects local fiscal policy through the way it moderates the influence of other factors, such as intergovernmental grants (Bae and Feiock 2004), state tax limits (McCabe and Feiock 2005), interjurisdictional competition (Craw 2008), and local fiscal capacity (Karuppusamy and Carr 2012) on municipal spending levels. The extant literature examining service production choices has rarely focused on conditional effects of municipal form, suggesting the empirical models may be incorrectly specified. If true, this error may be contributing to the inconclusive findings produced by this literature.

Form of government is a critical local political institution, and it likely moderates the effects of several different factors on service production decisions. In this analysis, we focus on how it moderates the effects of two specific sources of transaction costs in municipal services contracting: asset specificity and measurement difficulty. The role played by these two forms of transaction costs has received a lot of attention in the contracting literature (Brown and Potoski 2003; Carr, LeRoux, and Shrestha 2009; Shrestha and Feiock 2011; Hefetz and Warner 2012), and we think these two factors provide an excellent opportunity to test key propositions of the PMF in the context of service production decisions. Scholars have developed clear propositions about the decisions municipal executives will make when services are highly asset specific or effective performance is difficult to measure, and we seek to assess if the form of government used by the municipality appears to affect the decisions that are made. Do the different incentives faced by elected and appointed executive officials lead their organizations to different assessments of the risks and rewards of contracting for the production of public services? If yes, are there insights that can be drawn about the differences in their decisions?

The remainder of the paper is organized as follows. First, we briefly the empirical literature that has examined how form of government affects municipal service production decisions. Next, we use the political market framework to develop propositions about how the incentives created by FOG affect service production decisions. The effect of transaction costs from asset specificity and measurement difficulty has been strongly emphasized in the contracting literature and we build on that focus here. We then present the research design and analysis of the service production decisions for 43 services in 109 cities in the State of Michigan. The conclusion section summarizes the findings and highlights the implication for future research.

**Brief Literature Review and Conceptual Framework**

I think this section needs to do two things: First, it should briefly review the literature on FOG and production decisions. Second, I need to sketch out a conceptual framework based on the political market with a focus on transaction costs as a modifying variable.

**The Evidence for FOG’s Impact on Service Production Choices**

The introduction should emphasize the fairly dismal state of this literature when it comes to understanding how form of government affects contracting decisions. This situation creates a huge gap in our understanding of two important intersecting topics. Council-manager government is arguably the most important innovation in American municipal government over the last 100 years. Scholars of municipal government have long asserted that this innovation has improved decision making in municipal governments generally and on service production decisions specifically (Svara and Nelson 2008; Frederickson et al. 2001; Nalbandian, O’Neil, Wilkes, and Kaufman 2013). Public service delivery is a core activity for local governments, arguably the primary basis for their existence, and the choices municipal officials make about how to produce services have important impacts on the organization’s performance.

Roughly half of the XX studies seeking to link form of government to decisions to contract services report that form is not statistically related to these decisions (Morgan, Hirlinger, and England 1988; Lamothe, Lamothe, and Feiock 2008; Carr, LeRoux, and Shrestha 2009; Kwon and Feiock 2010; Kwon, Lee, and Feiock 2010; Shrestha and Feiock 2011). The other half provides modest support for propositions that FOG affects the decisions to contract services and the type of vendor used by municipal governments.

Three analyses provide empirical support for the proposition that council-manager governments are more likely than mayor-council governments to contract for public services. Hefetz and Warner’s (2004) analysis of service delivery arrangements in 628 U.S. cities showed that council-manager governments were more likely to contract services than mayor-council cities and also less likely to return services to in-house production once they have been contracted out. Levin and Tadelis’s (2010) analysis of service delivery arrangements in 1,043 U.S. cities in 1997 and 2002 showed that council-manager cities were slightly more likely to contract with other governments (15 percent) and nongovernmental (private and nonprofit) organizations (10 percent) than the mayor-council governments.They concluded that “cities run by an appointed manager, rather than an elected mayor, are more likely to contract for service provision, although the effect is relatively modest” (p. 510). Finally, Hefetz, Warner, and Vigoda-Gadot’s (2012) analysis of service delivery arrangements in cities and counties in the U.S. from 1992-2007 showed that those with a council-manager form were more likely to contract with other governments and for-profit suppliers.

Four studies assess the proposition that form of government incentivizes officials to rely on specific sectors to produce public services, but no the evidence is inconclusive. Brown and Potoski (2003) reported that council-manager cities were less likely to contract with private sector firms, but that form of government was unrelated to the likelihood cities opted to contract with nonprofits and other governments over in-house production. They also reported that council-manager cities were significantly more likely to engage in joint contracting, internal production, and complete contracting with other governments than enter into complete contracting with private firms. Feiock and Jang (2009) found that council-manager cities were more likely to contract elder services to nonprofits than mayor-council cities and more likely to use joint arrangements when they did.Hefetz and Warner (2012) found that the presence of a council-manager government decreased the likelihood of the service being produced using a nonprofit organization, but had no effect on the other sector choices. Finally, Hefetz, Warner, Vigoda-Gadot (2012) analyzed service delivery arrangements in cities and counties in the U.S. from 1992-2007 and found council-manager governments were more likely to rely on other governments and for-profits than were mayor-council governments.

A central proposition of the PMF is that municipal institutions play an important role in policy choices by moderating the influence of other factors, and form of government is especially important for establishing the incentives the elected executives and appointed managers face in making policy choices. Several studies from this literature have focused on explaining the conditional effects of FOG on service production choices. Hefetz, Warner, and Vigoda-Gadot have published several studies analyzing the conditional effects of various factors on the link between form of government and contracting decisions. Levin and Tadelis (2010) studied the moderating effect of form of government on the relationship between contracting difficulty and the use of external providers, but found no difference between manager and mayor forms of government.

The best among this group is Hefetz, Warner, and Vigoda-Gadot’s (2014) analysis of the factors explaining the composition of the “service portfolios” of municipal governments. They are one of the only studies to focus on the conditional effects of FOG on the relationship between transaction costs and service production choices. They did not find that FOG had large conditional effects on the link between transaction costs and production choices. They found that increasing asset specificity across the service portfolios in council-manager governments increased the likelihood of in-house production and decreased reliance on other governments and nonprofit organizations. Increased asset specificity in non-council-manager governments had similar effects, except that reliance on for-profit production also increased. They also found that FOG affected how measurement difficultly shaped production choices. Increased measurement difficulty in council-manager governments increased the likelihood that cities contracted out (all sectors??). Non-council-manager governments are the same as above, although the authors report that council-manager governments were slightly more likely to use for-profit providers than non-council-manager governments.

We build on these studies and develop propositions outlining how mayor-council and council-manager forms of city government, motivated by their incentive structures, perceive transaction risks associated with asset specificity and measurement difficulty differently leading executive officials to make different service production choices.

**The Political Market for Local Public Service Production**

What does this section need to achieve? Is it enough to simply argue that the incentives will create difference responses to transaction risk? I am not sure it is—we likely will need to propose specific sector differences. (A nagging issue for me is that we do not have information about the agreement supporting the production arrangement. Surely, the impact of the different incentives on production choices will surface as differences in how they structure the arrangement in some cases, rather than in differences in the sector they use to produce the service. How do we account for this issue?)

In most cases, municipal officials have several different options for producing the services provided to their residents. Services may be produced “in-house” using their own personnel and equipment or through contracting with other governments, nonprofit organizations, or for-profit suppliers of the service. The mode of production a city adopts depends, at least in part, on the transaction risks associated with external production of the service. The sectors are presumed to raise different risks for the government buying the service and these studies seek to assess the extent to which these risks affect the choice of sector. Other factors include political and market conditions (Hefetz, Warner, and Vigoda-Gadot 2012, 2014).

**Transaction Costs from Service Production Characteristics**

“Transaction costs are the information costs finding potentially mutually beneficial solutions, bargaining over that set of solutions, and monitoring and enforcing any resultant agreement” (Feiock, Lubell, and Lee 2014, p. 4). The municipal contracting literature has focused on the role two sources of risks created by the production characteristics of municipal services play in the decisions city officials make about service delivery arrangements. Asset specificity is defined as the degree to which the upfront investment of physical or human assets necessary for the production of a specific service has limited alternative uses. Measurement difficulty relates to difficulty in evaluating the quantity or the quality of an externally-delivered service. Empirical research on municipal contracting decisions suggests that the effect of these transaction risks on production choices is likely curvilinear elevate (Brown and Potoski 2005; Carr, LeRoux, and Shrestha 2009; Shrestha and Feiock 2011): Reliance on external production options is expected to increase when asset specificity and measurement difficulty are at low or moderate levels, but decrease when these sources of transaction risks are high.

*Asset specificity and sector choice*

A public service is regarded asset specific when the supplier must make non-transferable investments in specific physical or human assets to produce the service for sale to other organizations (Brown and Potoski 2005). Asset specificity creates risks for suppliers of the service and may limit the number of producers in the local public service market willing to make the investments necessary to produce the service. Suppliers of highly asset specific services can mitigate this risk by avoiding dependence on a single or relatively few buyers, such as when a county or large city provides water or sewer services to multiple cities. Asset specificity may also create risks for buyers of the service if they become dependent on a single provider. In cases where there are few suppliers of the service, the lack of competition in the local market increases the potential for opportunistic behavior (e.g., higher prices, lower quality, etc.) by them.

The empirical literature examining the effect of asset specificity on service production choices reports an inverted-U or concave relationship for cities purchasing the service from other organizations (Brown and Potoski 2003; Carr, LeRoux, and Shrestha 2009; Shrestha and Feiock 2011). In the case of Michigan cities, Carr, LeRoux, and Shrestha (2009) found that cities relied on other governments and non-governmental organizations over in-house production for services with low to moderate levels of asset specificity. However, they found that the services with very high asset specificity were more likely to be produced in-house. Shrestha and Feiock (2011) reported a similar pattern in the case of Georgia cities. They found that cities outsourced other local governments for services with moderate level of asset specificity but were more likely to use in-house production for services with high (above average) levels of asset specificity.

Is there any literature that links asset specificity to willingness to sell the service to others?

Proposition 1: Highly asset specific services are more likely to be produced in-house

*Measurement difficulty and sector choice*

Some services also suffer from measurement difficulty. These services create substantial information asymmetries among the parties, opening the possibilities for the opportunism on the part of suppliers seeking to manipulate the quantity or the quality of the services (Brown and Potoski 2005). Aggressive enforcement of the service agreement may prevent supplier opportunism, but may involve substantial costs to the buyer of the service.

This discussion needs to be framed in terms of what the empirical studies found—current language is too general. When measurement difficulty is low implying negligible monitoring cost, cities are likely to rely more on private and nonprofit contractors. Nongovernmental providers usually operate in more competitive markets than governmental suppliers, increasing the chances of greater cost savings than when governmental providers are used (Brown and Potoski 2003, 2005). As the cost of monitoring the nongovernmental vendors surges with increase in measurement difficulty, cities may turn to their governmental counterparts which are likely to be culturally similar and less opportunistic and, thus, less need for monitoring compared to a private vendor (Brown and Potoski 2003; Jang 2006; Lamothe, Lamothe, and Feiock 2008). When measurement difficulty of a service become extreme, cities may opt for in-house production rather continuing with external providers requiring high-cost monitoring and enforcement (Shrestha and Feiock 2011). As in the case of Michigan cities (Carr et al. 2009) cities may use nonprofit providers as their preferred means of service delivery over in-house production because, unlike private vendors, nonprofit providers are considered to be more public service oriented and less opportunistic.

Proposition 2: Public services that are difficult or costly to measured are more likely to be produced in-house

**Incentives for Municipal Executives from Form of Government**

“Form” is often used interchangeably with “municipal structure” or “political institutions,” but it is not synonymous with these two terms. Svara and Nelson (2008) proposed that the following three elements constitute form and provided the most important distinction between council-manager and mayor-council governments:

* Allocation of authority over policy and administration: “The unique feature of the council-manager form is the interaction of the council members and administrators in both policy and administration” (Svara and Nelson 2008, 7). In contrast, the mayor-council form creates a separation of powers structure similar to that of the federal government by assigning policy authority to the council and administrative authority to the mayor.
* Assignment of executive responsibilities: “In the council-manager form, executive functions are the responsibility of the city or county manager even if some functions on occasion are shared with other oﬃcials” (8), whereas in the mayor-council form, these responsibilities are carried out under the authority of the mayor. “A central coordinating position can be created—a CAO [chief administrative oﬃcer]—but” the responsibilities of the CAO are determined by the mayor in the mayor-council form (8).
* Accountability of the chief administrative oﬃcer: “Responsibility to the entire council is an essential characteristic of the council-manager form and helps to ensure both transparency and a focus on the public interest rather than the political interests of a single elected oﬃcial” (8). Svara and Nelson observed that when the mayor is charged with the responsibility of terminating the manager, this reporting relationship essentially creates a CAO who will likely serve the mayor’s interests rather than those of the council.

Add a few sentences/paragraph that sets out what outcomes we see as following from the high-powered incentives of the mayor-council form. If the rationale is that they will exchange production agreements (policy outputs) for electoral support, what does this look like? Who are the key policy demanders for the difference production choices? Employees clearly will prefer in-house production. The preferences of residents will be less clear. Some will want the lowest cost option, others will want assurances of high quality and local control over the service. What about potential vendors? We know that the potential nonprofit and for-profit providers will prefer external production, but how would we evert measure this in an empirical model?) Finally, do we include other governments (e.g., counties, adjacent municipalities, etc.) as having policy demands when it comes to the production choices of other cities?

(Check with Rick—wasn’t there a PAR article linking public attitudes to contracting decisions? I reviewed it but cannot remember what happened to it.)

*Asset specificity and form of government*

Based on the political market framework, appointed managers and elected mayors may choose different modes of service production in response to asset specificity risks for a service. Appointed managers, who embrace efficiency as their professional norm, would be willing to tolerate more risks and continue to prefer external modes of production with increased levels of asset specificity. They may perceive the increased risks of dependence on a few vendors worth taking given the expected gains in efficiency resulting from the external modes of production. At a very high level of asset specificity when the risks of dependency becomes too high, they may decide to reduce their dependency on external delivery; however, the external mode of delivery could still remain the preferred service delivery mode.

The elected executives in mayor-council governments are expected are balance the increased risk from asset specificity against demands from actors with the political resources they need. The PMF suggests that executives have an incentives to supply policies demanded by residents, employees, and local interests in exchange for resources that improve their change of reelection. (We are likely going to need something in our model that helps us assess which side employees or residents/taxpayers have the stronger claim on the instrumental political resources executive mayors seek.)

At low or moderate levels of asset specificity when the risk of dependency is negligible, mayors may not find their credit claiming and reelection prospects being threatened; thus, they would likely to continue with the external mode of production. But as asset specificity becomes very high, greater risk of dependency on a singular provider – monopolistic price or uncertain delivery of services - could play out a great electoral risk for mayors looking for wider political support. The mayor may face unfriendly opposition and growing unhappy residents not only because of looming vendor opportunisms but also because of the citizens’ perception that the mayor being favorable to vendors at the cost of the residents. As a result, the mayor would likely to pull back from external mode of delivery in favor of in-house production.

Research Proposition 3: XXXXX

*Measurement difficulty and form of government*

Following the political market model, such a choice would reflect net gains for the decision makers: Increased efficiency for managers and greater prospects for reelection for mayors. When transaction risks increase, the city executives would perceive these risks to be too great to continue with the existing choice which would motivate them to shift to a different mode of service production that expands their gains. As an example, motivated by the high-powered incentive, a mayor is less likely to continue external production when the risks of the vendor opportunism gets high enough that might place blame on the mayor for favoring the special interests at the cost of the constituents.

Since managers are more efficiency oriented, they would be willing to continue with external modes of production over in-house with increase in measurement difficulty. Although increasing measurement difficulty implies higher vendor monitoring cost, managers’ motive for efficiency is likely to encourage them to be innovative in finding cost effective ways of monitoring external suppliers of their compliance (Ruhil et al. 1999). The search cost for new innovation is lower for mangers as they frequently share information through their professional networks. This implies that managers may continue to perceive the gains from external production as long as they find cost-effective ways of monitoring the supply obligations of external providers.

On the other hand, mayors would respond the risk of measurement difficulty from the perspective of reelection prospects. At low or moderate levels of measurement difficulty when the cost of monitoring the vendor compliance is relatively low, mayors may perceive no or little risk of vendor opportunism and, thus, almost no damage on reelection prospects. Accordingly, mayors would more likely to choose the external modes of production over in-house production. But when measuring difficulty is very high requiring substantial enforcement cost, mayor may perceive their credit claiming and reelection prospects threatened because of more opportunities for opportunistic behavior by the external suppliers that could frustrate the resident voters. More investment on enforcement can reduce the vendor opportunism but could be unpopular among residents who bear the burden. As a result, mayors would more likely to shift towards in-house production from the external modes of production when risks associated with measurement difficulty is substantial.

Research Proposition 4: XXX

**Description of Data and Method of Analysis**

**Data Description**

In order to test how the city form of government influence the relationship between transaction risks and service delivery choices, we reanalyze service delivery choice data collected in 2005 for 109 cities in Michigan (Carr, LeRoux, and Shrestha 2009). The data used in the analysis were collected through surveys of the city administrator or mayor, village manager or president, or township supervisor of local general-purpose government within 24 Michigan counties. The study involved production choices for 43 services. The unit of analysis is the individual services for which city managers or mayors must make production choices. As such, the sample yielded 4,687 service-observations (109 cities by 43 services). As many as 922 of 4,687 cases (services) were reported to be either not provided or not contracted; thus, our analysis focuses on the production choices made for the 3,765 observations.

**Dependent Variable**

The dependent variable is a quadruple measure capturing in-house production, joint production with other governments, complete contacting with other governments, and nongovernmental production (service production by a private or nonprofit organization). Studies of service delivery choices in the United States have shown that cities typically use direct provision as the major form of service production (Brown and Potoski 2003; Lamothe, Lamothe, and Feiock 2008). This pattern holds for Michigan cities too where 67% of the services examined were provided in-house. The external modes of production were used less frequently; about 19% of the services were outsourced from other governments, and remaining 14 % were provided through nongovernmental providers.

**Independent Variables**

Theprimary independent variables are transaction characteristics of services – asset specificity and measurement difficulty - and forms of city government. Our analysis also include asset specificity squared and measurement difficulty squared given the past evidence of their non-linear effect on the service production choices (Brown and Potoski 2003, 2005; Carr, LeRoux, and Shrestha 2009). Since the interest in this study is to test the moderating effect of the forms of city government, the explanatory variables of particular interest are the four interaction variables. These four variables are generated by multiplying the form of city government with asset specificity, asset specificity squared, measurement difficulty, and measurement difficulty squared, where the form of city government is a moderating variable. The quadratic interaction terms, or the interaction terms with the squared variables, were included because the moderating effect of the forms of city government were expected to be more pronounced at the margins of asset specificity and measurement difficulty given the evidence for non-linear effects of asset specificity and measurement difficulty on the service production choices.

The measures for asset specificity and measurement difficulty were adopted from Brown and Potoski (2003) who were the first to use survey-based asset specificity and measurement difficulty scores for each of the service in the study of service production choices. The average scores for asset specificity and measurement difficulty for each service were based on the ratings by city managers and mayors on a scale of 1 to 5. A scale of 5 assigned for a service indicated substantial risk to the outsourcing city in external production because the service is highly asset specific leading to greater dependency on the outsourced party, or pose significant difficulties in monitoring the terms of production agreed to by the external producers.

Forms of city government considered in the analysis are the council-manager form of government and mayor-council form of government. A dichotomous measure, coded 1 for the council-manager government and coded 0 for the mayor-council government, represents the forms of city government. These two forms of government are the principal types of municipal governing institutions in the U.S. and are widely utilized in empirical research to capture the forms of city government.

The conditions that city executives inherit or create as leaders also influence their decisions regarding service production choices. These conditions serve as controls in our study. Some well-known conditions they inherit are city size, fiscal situation, and the mindset (or organizational culture) of their cities. Other conditions are more dependent on the leadership of the city executives. Professional networking is one such condition that has received increasing scholarly attention (Meier and O’Toole 2003, Carr, LeRoux, and Shrestha 2009). Past studies show that city executives opt for external production because of fiscal pressures resulting from inadequate revenue sources or from small population insufficient for cost-effective in-house provision of services (Morgan et. al. 1988; Joassart-Marcelli and Musso 2005, LeRoux and Carr 2007). In times of fiscal stress, external production may provide a viable option for cities to cope with fiscal hardships. Similarly, the ability of smaller cities to produce services in-house at lower costs is constrained by their small size, which encourages them to adopt alternative service production arrangements (Warner and Hefetz 2002). The percentage change is total revenue between 1996 and 2001 measures the degree of fiscal stress of the cities in the study. The city size is represented by its population. A city’s age, or years of incorporation, is also included to capture the notion that younger cities are more prone to new ideas and innovations compared to old timers who are generally more resistant to change.

City officials build professional networks by joining the same professional associations. Grounded on collective experiences, similar educational background, and professional linkages, these networks can apply powerful influence on the city executives’ policy preferences (LeRoux and Carr 2010). City officials’ professional network is measured by an additive index comprising three dichotomous measures: (1) whether or not the city’s manager has an MPA degree, (2) whether or not the city manager is a member of the ICMA, and (3) whether or not two or more city employees are ICMA members.

The study also includes a set of dichotomous measures to control for the variations in the local public services market in 23 counties within which the cities in this study operate. These counties differ with respect to number of producers (both governmental and nongovernmental); historical patterns of service arrangements in the area, particularly the county’s role as service provider; and the demand for public services because of changes in population and economic growth. These factors together reflect differences in public service market for local public goods in the counties (Carr, LeRoux, and Shrestha 2009). Finally, the state-level factors such as tax limits, mandated services and minimum service levels, procedures for formation of government and change of boundary, as well as restrictions on interlocal contracting also influence service production choices of a city. These factors were not considered in this study because our study is limited to service production choices for cities within a single state.

**Results and Discussion**

We used multinomial logit regression to estimate the moderating effect of the forms of city government on the relationship between transaction risks and external production choices against direct provision. The models includes four interaction variables to determine if elected mayors and appointed mangers make service production choices differently given their exposure to the same transaction risk conditions. The estimates adjust standard errors by clustering cities belonging to their county in order to account for the differences across counties in service arrangements, noted above.

Table 2 reports the results with and without interaction terms. The results articulate the likelihood of choosing joint production with other governments, complete contracting with other governments, and nongovernmental modes of production over in-house production associated with one unit change in the independent variables. The results in both models are consistent as indicated by similar direction of the estimated coefficients. The estimated coefficients are in log odds. A positive coefficient for a variable would mean the variable contributes to increased likelihood of adopting a particular mode of service production. A negative coefficient would suggest the opposite. All four control variables – professional network, city size, and revenue and age of a city – are largely insignificant in determining choice of service production modes. For the most part, service delivery choice is determined by transaction risks and form of city government. The interaction model explains 14% of the variation in the choices for municipal service production. Although the interaction model’s contribution over the base model (without interaction terms) is marginal, the interaction model highlights how the council-manager and mayor-council forms of city government moderate the effect of service transaction risks (asset specificity and measurement difficulty) on service production choices.

Table 2 about here

Before we examine moderating effect of the council-manager and mayor-council form of government on service production choices, we briefly discuss cities’ service production decisions without the moderating effect for a comparative insight. It is noteworthy that the results for the main and quadratic terms of asset specificity and measurement difficulty are consistent across both models. Absent interaction terms, the results for the asset specificity related transaction risk suggest that cities are more likely to use other governments (both joint production and complete contracting) for service production with moderate increase in asset specificity. The result is indeterminate when asset specificity becomes very high. This is indicated by the insignificant coefficients for the quadratic term for asset specificity. As regards to nongovernmental mode of production, both main and quadratic effects are statistically significant as expected. This suggests that cities are more likely to choose nongovernmental providers vis-à-vis in-house production with increase in asset specificity. But when asset specificity turns substantial, cities are likely to reduce nongovernmental delivery in favor of in-house production. For measurement difficulty, the main term and quadratic terms are statistically significant for the choice of other governments (both joint production and complete contracting). This means that cities use other governments for service production with moderate increase in measurement difficulty but they reduce the use of other governments when measurement difficulty become very high. Cities appears to behave differently with respect to nongovernmental production choice. When measurement difficulty is moderate, cities tend to have low use of nongovernmental production whereas they appear to expand the use of nongovernmental providers when measurement difficulty become very high.

The results portray a different picture when the forms of city government are included as interaction terms. There is no evidence to suggest significant difference between council-manager and mayor-council form of government in their choice for complete contracting with other governments over in-house production in response to asset specificity and measurement difficulty. However, in making choices for joint production with other governments and nongovernmental production, the form of city government appears to respond differently to exposure to asset specificity and measurement difficulty. The results show that the appointed managers and elected mayors react differently to measurement difficulty in making choice for joint production with other governments. The two types of executives do not response differently to asset specificity for joint production with other governments. They do respond differently to asset specificity for making nongovernmental production choice, but they do not react differently to measurement difficulty for nongovernmental production.

A comparison between results with and without the moderating effect provides further light on the difference between the cities with appointed managers and the cities with elected mayors in making production choices in response to similar transaction risks. Without the moderating effect, the results show that cities are more likely to reduce the use of joint production with other governments when measurement difficulty is substantial. With the moderating effect, the cities with appointed managers are more likely to increase the use of joint production with other governments even when the measurement difficulty is substantial in comparison to cities with the elected mayors. Similar pattern is evident for the nongovernmental production choice. Absent the moderating effect, cities are likely to decrease the use of nongovernmental production choice with greater degree of asset specificity risk. But with the moderating effect, the cities with appointed managers are more likely to continue to use nongovernmental production with higher level of asset specificity compared to their counterpart, the cities with elected mayors.

A disaggregated analysis was done by dividing the cities in the study into adapted and non-adapted cities (table 3). No evidence of moderating effect of the forms of city government was found for the non-adapted cities. For the adapted cities, moderating effect of the forms of government was found to be stronger in comparison to all cities in the study. The pattern of the moderating effect found for all cities continued for the adapted cities. The moderating effect is also significant for complete contracting choice with other governments with respect to exposure to measurement difficulty.

Table 3 and 4 about here

**Conclusion**

In this article, we followed political market framework and developed a theory of moderating effect of the forms of city government in influencing service production choices in response to transaction risks posed by services in transaction. We tested the theory by utilizing service production choice datasets for Michigan cities. While the results suggest partial evidence for the moderating effect, the findings do suggest that the cities with appointed managers and the cities with elected mayors respond differently to the risks associated with different levels of asset specificity and measurement difficulty. Moreover, such a difference response is more likely to pronounce at the margins of the degree of asset specificity and measurement difficulty. Also, the difference between the two types of executives in the use of service production choices is subject to the type of transaction risks. Compared to elected mayors, professional managers tend to tolerate more transaction risks for efficient production choices. However, their choice for governmental production is associated with measurement difficulty and nongovernmental production is associated with asset specificity. The evidence is stronger among the adapted cities than among all cities combined.

Given the overlook in the literature that professional managers and elected mayor can respond to transaction risks differently in making service production choices, our work on developing and testing a theory of moderating effect of the forms of city government in this regard is a step forward in the development of the literature. Our work has potential to advance our understanding about how the forms of city government as governing institutions tamper or enhance transaction risks for managers and mayors thereby affecting their choice of service production modes. More studies should be helpful to further test the moderating effect of the forms of government. From the policy perspective, the evidence that the two forms of city government operate differently in response to transaction risks could provide a basis for communities to consider adapting their form of government for efficient results.

Furthermore, the Michigan dataset used for this study combines for-profit and nonprofit production options and joint production options with these entities into one nongovernmental production category. Professional managers and elected mayors may make their choice for for-profit and nonprofit production differently in response to transaction risks. For example, when an outsourcing city retains its involvement in producing part of a service in transaction, it has better information about production costs and outcomes and is better positioned to monitor contractor performance (Lamothe, Lamothe, and Feiock 2008). If so, mangers would be more inclined to use joint production with for-profits even when transaction risks are higher than average. The two types of city executives are not aloof from the political environment of the city within which they operate. For example, the high power or low power incentives for mayors and managers may be affected by whether the elected council is more or less professional with implications on service production choices. Our analysis did not capture these subtle influences. Future works should look into such nuances for better understanding of the role of local political institutions in making local service production decisions.

**Notes**

**References**

Bae, Jungah and Richard Feiock. 2013. “Forms of Government and Climate Change Policies in U.S. Cities.” *Urban Studies* 50(4): 776-88.

Brown, Trevor and Matthew Potoski. 2003. “Transaction Costs and Institutional Explanations for Government Service Production Decisions.” *Journal of Public Administration Research and Theory* 13(4): 441-468.

Carr, Jered B. 2015. “What have we Learned about the Performance of Council-Manager Government? A Review and Synthesis of the Literature.” *Public Administration Review* 75(5): 673-89.

Carr, Jered B. and Shanthi Karuppusamy. 2009. “Beyond Ideal Types of Municipal Structure: Adapted Cities in Michigan.” *American Review of Public Administration* 39(3): 304-21.

Carr, Jered, Kelly LeRoux, and Manoj Shrestha. 2009. “Institutional Ties, Transaction Costs, and Service Production Decisions.” *Urban Affairs Review* 44(3): 403-27.

Feiock, Richard. 2013. “The Institutional Collective Action Framework.” *Policy Studies Journal* 41(3): 397-425.

Feiock, Richard and Hee Soun Jang. 2009. “The Role of Nonprofits in Local Service Delivery.” *Public Administration Review* 70, (July/August): 668-680.

Feiock, Richard C. Mark Lubell, and In Won Lee. 2014. The Political Market Framework and Policy Change. FSU Local Governance Research Lab Working Paper. Downloaded from <http://localgov.fsu.edu/publication_files/essays/Politcal_Market__Policy_Change_2010_5_16_ML.pdf> on February 1, 2014.

Feiock, Richard, Annette Steinacker, and Hyung Jun Park. 2009. “Institutional Collective Action and Economic Development Joint Ventures.” *Public Administration Review* 69(2): 256-270.

Ferris, James and Elizabeth Graddy. 1991. “Production Costs, Transaction Costs, and Local Government Contractor Choice.” *Economic Inquiry* 29(3): 541-554.

Frant, Howard. 1996. “High- and Low-Powered Incentives in the Public Sector.” *Journal of Public Administration Research and Theory* 6, 365-81.

Frederickson,H. George, Gary Alan Johnson, and Curtis Wood. 2003. *The Adapted City: Institutional Dynamics and Structural Change,* M.E. Sharpe, Inc.

Green, William H. 2003. *Econometric analysis*. 5th ed. New York: Pearson.

Hefetz, Amir and Mildred Warner. 2004. “Privatization and its Reverse: Explaining the Dynamics of the Government Contracting Process.” *Journal of Public Administration Research and Theory* 14(2): 171-90.

Hefetz, Amir and Mildred Warner. 2012. “Contracting or Public Delivery? The Importance of Service, Market and Management Characteristics.” *Journal of Public Administration Research and Theory* 22(2): 289-317.

Joassart-Marcelli, Pascale, and Juliet Musso. 2005. Municipal service provision choices within a metropolitan area. *Urban Affairs Review* 40:492-519.

Kwon, Sung-Wook and Richard C. Feiock. 2010. “Overcoming the Barriers to Cooperation: Intergovernmental Service Agreements.” *Public Administration Review* 70(6): 876-84.

Lamothe, Scott, Meeyoung Lamothe, and Richard C. Feiock. 2008. “Examining Local Government Service Delivery over Time.” *Urban Affairs Review* 44(1): 27-56.

LeRoux, Kelly and Jered B. Carr. 2007. “Explaining Local Government Cooperation on Public Works: Evidence from Michigan.” *Public Works Management & Policy* 12(1): 344-58.

LeRoux, Kelly and Jered B. Carr. 2010. “Prospects for Centralizing Services in an Urban County: Evidence from Self-Organized Networks of Eight Local Public Services.” *Journal of Urban Affairs* 32(4): 449-70.

Levin, Jonathan and Steven Tadelis. 2010. “Contracting for Government Services: Theory and Evidence from U.S. Cities. *The Journal of Industrial Economics* 58(3): 507-41.

Lubell, Mark, Richard C. Feiock, and Edgar E. Rameriz de la Cruz. 2009. “Local Institutions and the Politics of Urban Growth.” *American Journal of Political Science* 53(3): 649-665.

Meier, Kenneth J., and Laurence J. O’Toole, Jr. 2003. Public management and educational performance: The impact of managerial networking. *Public Administration Review* 63 (6): 689-699.

Morgan, David, Michael Hirlinger, and Robert England. 1988. “The Decision to Contract Out City Services: A Further Explanation.” *Western Political Quarterly* 41(2): 363-72.

Nalbandian, John, Robert O’Neil, Jr., J. Michael Wilkes, and Amanda Kaufman. 2013. Contemporary Challenges in Local Government: Evolving Roles and Responsibilities, Structures, and Processes. *Public Administration Review* 73(4): 567–74.

Ruhil, A. V. S., M. Schneider, P. Teske, and B. M. Ji. 1999. Institutions and reform: Reinventing local government. *Urban Affairs Review* 34:433-55.

Shrestha, Manoj K. and Richard C. Feiock. 2011. “Transaction Cost, Exchange Embeddedness, and Interlocal Cooperation in Local Public Good Supply. *Political Research Quarterly* 64(3): 573-87.

Svara, James H., and Kimberly L. Nelson. 2008. “Taking Stock of the Council-Manager Form at 100.” *Public Management* 90(7): 6–14.

Walker, Richard M., and Rhys Andrews. 2015. Local Government Management and Performance: A Review of Evidence. *Journal of Public Administration Research and Theory* 25(1): 101–33.

Warner, Mildred, and Amir Hefetz. 2002. The uneven distribution of market solutions for public goods. *Journal of Urban Affairs* 24:445-59.

Williamson, Oliver E. 1981. The economics of organization: The transaction cost approach. *American Journal of Sociology* 87:548-77.

Wooldridge, Jeffrey M. 2003. *Introductory econometrics*. 2nd Edition. Mason, OH: Thomson South-Western.