Contract management in thin markets: 
Examining transaction costs and contract effectiveness

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Abstract

As the scale and scope of public service contracting expands across all levels of government, outsourcing has grown far beyond traditional “hard” products, with service contracts now dominating contracting activity. At the same time, efficiency gains from contracting are not consistently evident. One potential explanation is weak public service markets and the management responses to those markets. For many public service contracts, there simply are too few vendors to produce theorized gains in quality, innovation, or cost savings. One pertinent question concerns whether gains that do emerge outweigh the transaction costs related to contract management in such markets.

Based on a multi-method design that employs new primary survey data, we find that public managers respond to weak vendor markets by “managing the market,” and that this response constitutes an often ignored element of contract transaction costs. Our analysis details and assesses these costs, and examines their impact on contract effectiveness. The results indicate that “managing the market” – a rational response to thin provider markets - may diminish the service quality and cost-effectiveness of government contracts, as well as their accountability to the public interest.

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The expansion of government contracting is well documented, as is the challenge posed for governments as they seek high quality service delivery, accountability to citizens, and maximum public value. This growth in contracting occurred against a backdrop of increased interest in market principles and strategies for public service delivery, and confidence in the capacity of market competition to improve service quality while reducing costs. The logic for outsourcing public service delivery depends heavily on the potential of competition to decrease costs and enhance the efficiency of government programs and services (Hefetz and Warner 2004; Savas 2000; Boyne 1998; Pack 1987).

More recently, the theoretical foundations for government contracting have been scrutinized by scholars skeptical about the public choice and market failure justifications for outsourcing; some have assessed contracting through alternative frameworks including public values (Bozeman 2007; Jorgensen and Bozeman 2007), constitutional and administrative law norms (Rosenbloom and Piotrowski 2005; Moe 1987; Gilmour and Jensen 1998; Hansen 2003), and social equity (Radin 2006; Hefetz and Warner 2004; Frederickson 1996). At the same time, research on contract management – focused on design, implementation, and oversight – suggests that outsourcing does not always conform to the competitive market theory driving its use (Warner and Hefetz 2010; Sclar 2000; Johnston and Romzek 1999; Romzek and Johnston 2005, Kettl 1993). Cost savings have been questioned (Bel and Warner 2010; Boyne 1998; Frederickson and Stazyk 2010), and attention has been directed at the transaction costs associated with contracting. These transaction costs may be particularly high when markets are noncompetitive (Warner and Hefetz 2008; Sclar 2000; DeHoog 1990).

With these issues in mind, this study examines contract managers’ efforts to manage features of the markets from which they acquire goods and services on behalf of citizens. “Thin”
provider markets (Weimer and Vining 2005), which undermine the competition rationale for contracting, are not uncommon. Furthermore, in markets that were originally competitive, managers may face conditions of low competition due to provider consolidations and mergers (Sclar 2000; Heinrich 2010).

A key reality driving our analysis is that when markets for government contracts are noncompetitive, public managers respond with interventions and strategies designed to strengthen the market. They build, nurture, and expand markets when they perceive that competition is inadequate, in part to ensure a balance of power in the purchaser-provider relationship. These efforts constitute real – and often overlooked – costs, and they are not well understood. While market management strategies have been cited in contracting research (Warner and Hefetz 2008; Graddy and Chen 2006; Brown and Potoski 2004), we have little detailed knowledge about them, or about how they might influence contract effectiveness.

When contracting decisions are made, projections of cost reductions through contracted production and service delivery often fail to account for transaction costs – the costs associated with economic exchange (Coase 1937; Williamson 1981). In the contracting context, transaction costs include the resources required to develop, maintain, and monitor contracts (Sclar 2000). Some estimates suggest that these transaction costs may supplement direct contract costs by up to 25 percent (Prager 1994; DeHoog 1990; Pack 1989). Many contract managers indicated to us in interviews that such administrative costs are nearly always ignored when the contracting decision is made. These managers, steeped in the reality of contract administration costs, and frequently operating in strained resource environments, find their capacity to provide adequate oversight further challenged when they must also “manage the market.”

This article wrestles with related empirical questions that have not been taken up in the
contracting literature. Drawing on results from recent primary survey data, supplemented by semi-structured interviews with federal, state, and local contract administrators, we examine the impact of “market management” and other transaction costs on contract effectiveness and accountability to the public interest. The concept of market management as a transaction cost remains largely unstudied (for exceptions, see Warner and Hefetz 2008; Graddy and Chen 2006; Brown and Potoski 2004). The contention here is that market management diminishes returns from contracting, in part because it diverts resources from other elements of contract management, and in part because it reflects - and is meant to remedy- noncompetitive conditions. In short, we aim to dig more deeply into this particular component of contract transaction costs.

Our data provide insights from managers on the front lines of outsourcing. Local government officials – specifically, city managers and department heads in a variety of service areas – have provided responses to a set of survey questions related to contracting, contract management, and contracting outcomes. These responses support the notion that contract managers expend substantial administrative resources on “managing the market,” and that market management may be associated with diminished contract effectiveness.

The paper is organized as follows. First, we review theories of contracting and competition, and develop a framework to examine contract effectiveness as a function of contracting transaction costs. Next, we introduce our data and methods and discuss managers’ interventions in noncompetitive markets with the transaction cost framework in mind. We follow with the results from multivariate models designed to test a set of hypotheses about relationships between contract effectiveness and transaction costs. We conclude that market management should be viewed as a component of contract transaction costs, and that market...
management may reduce contract effectiveness, in part because “managing the market” raises
transaction costs beyond the more familiar contract development and monitoring activities
(Warner and Bel 2008). We close with a discussion of the implications of our study for
government outsourcing.

Market Theory and Contracting

The dynamics associated with competition are intrinsic to the rationale for government to
contract with nongovernmental organizations. Competition, and the efficiency it fosters, results
when an organization “must compete for market share, functions and resources” (Cohen 2001,
434). Donahue (1989) emphasizes the “cardinal importance of competition” in privatization,
stating that “most of the kick in privatization comes from the greater scope for rivalry when
functions are contracted out, not from private provision per se….Efforts to compensate by other
means for the missing discipline of competition will seldom be fully successful” (218).
According to this view, competition forces producers to control costs and deliver quality services
because there are consequences for inefficient behavior (i.e. purchasers will choose another
supplier) (Greene 2002; Pack 1987). In the absence of competition, the need for monitoring (and
related transaction costs) will rise, offsetting efficiency gains from contracting. Thus, “the
primary goal of any privatization effort is, or should be, to introduce competition and market
forces in the delivery of public services” (Savas 2000, 122). The underlying objectives include
maximizing return on taxpayer investment while improving government performance, customer
service, and citizen well-being (Kelman 2002; Osborne and Gaebler 1993).

Many of the challenges associated with the current wave of government contracting have
to do with expansion in the scale and scope of contracting. The number of federal contracts
awarded under full and open competition declined between 2000 and 2006, from 45% of the total
contract dollars to 34% (openthegovernment.org 2007). This trend is especially troubling because over 25% of discretionary federal spending now goes to contracts (GAO 2006). Thus, a notable portion of federal contracting does not follow the market logic of contracting. State governments also experience thin markets as they increase their reliance on contracts for service delivery (Romzek and Johnston 2002; Van Slyke 2003; 2007; DeHoog 1990; Smith and Smythe 1996; Schlesinger et al. 1986).

Competition for local government contracts can also be weaker than theory might predict (Warner and Bel 2008; Warner and Hefetz 2008; Amirkhanyan 2007; Hefetz and Warner 2004; Johnston et al. 2004; Hirsch 1995; Kodrzycki 1994). Warner and Hefetz (2010) estimate that on average, there are fewer than two providers for city service contracts. Despite the more “private” nature of goods and services provided at the local level, the provider supply market is less vigorous than theory suggests. Competition is not guaranteed by any specific number of vendors, and there is no clear consensus on an acceptable number of bidders. Assumptions underlying the concept of a fully functioning market typically include a requirement for “many” buyers and sellers, or producers and consumers, with ease of entry to and exit from the market. Three or more bidders seem to be widely accepted as indicative of some minimal level of competition. By contrast, The Reason Foundation suggests that competition exists when at least two providers compete in a bidding process (Van Slyke 2007, fn19, p. 166). Former Indianapolis Mayor Stephen Goldsmith concluded that adequate competition was established when three or more vendors bid, and in that count he often included city departments authorized to compete for city contracts.

Competition and obscured costs

Many contracting scholars emphasize that even when vendor competition is adequate, the
benefits promised by theory may not materialize. Healthy markets do not guarantee that contracts will deliver improved service and/or cost savings (Heinrich 2010; John and Ward 2005; Brudney et al. 2004; Sclar 2000; Boyne 1998; Hirsch 1995; Donahue 1989), nor does outsourcing in general (Boyne 1998; Warner and Bel 2008; Johnston and Romzek 2008; Bel and Warner 2010). And the efficiency promised by competitive markets for government contracts may undermine constitutional and political values such as responsiveness, responsibility, accountability, due process, transparency, effectiveness, equity, and other public values (Bozeman 2007; Rosenbloom and Piotrowski 2005; Cooper 2003; Milward and Provan 2000; Frederickson 1996; Moe 1987). Recent emphasis on “best value” contracts reflects, in part, renewed attention to these alternate values. Best value contracts consider lowest cost as one of several criteria to be evaluated, thus balancing competing values of importance to the specific program or service. Under this approach, service quality and accountability to public values become as important (or perhaps more important) as simple cost reductions.

Government administrative capacity can also suffer under competitive contractor markets. Concern has grown over the seepage of expertise from government to contract organizations, many of which offer higher rates of compensation and are eager to attract individuals with program experience and institutional history (Johnston and Romzek 2008). Increasingly, the actual procurement and contract management and oversight functions are outsourced, further eroding government administrative capacity. The GAO (2008) reports that for the Army’s Contracting Center of Excellence (CCE)’s “contractor employees supported from 24 to 30 percent of its contract actions from fiscal years 2005 through 2007 and, in August 2007, represented 42 percent of the agency’s contract specialists,” and that “CCE is paying up to almost 27 percent more for its contractor-provided contract specialists than for similarly graded
government employees. This comparison took into account government salary, benefits, and overhead and the loaded hourly labor rates paid to contractors” (GAO 2008, 3). This issue took on new visibility recently in military circles as Defense Secretary Gates reportedly became “troubled by security contractors’ practice of luring soldiers out of uniform by offering them higher salaries…[and is] looking for ways to put legal limits on that practice” (Burns 2007, 1). This loss of institutional knowledge and expertise in government constitutes another, relatively invisible and incalculable cost of contracting.

Paradoxically, the administrative coherence associated with a more stable, monopolistic system is often sacrificed when competitive contracting is used. The instability inherent in contracting (Johnston and Romzek 2008) may offer hints to help explain why we see evidence of difficult contract implementation even in healthy markets (Warner and Bel 2008; Romzek and Johnston 2002; 2005; Milward and Provan 2000; 1998). There may be some optimal level beyond which more competition leads to diminishing returns from contracting.

Put simply, policy makers should not assume that provider markets are adequate for contracted goods and services, or that competition guarantees contracting success. Yet despite the potential shortcomings of robust competitive markets for contracts, it is clear that an absence of competition is also undesirable and has the potential to diminish the effectiveness of government contracting. Public managers, acutely aware of this, often focus their energies on creating healthy levels of provider competition when they design and implement contracts.

**Data and Methods**

This effort focuses on the work of front line contract managers responsible for day-to-day management of specific services provided by contractors. We focus on these managers (as opposed to procurement officials) because perceptions of contract performance and vendor
availability will be more accurate for managers closest to service provision. The research
presented here combines interview and survey data. The interview data involve contract
managers at all levels of government. We interviewed 24 public managers in 2007 and 2008 to
solicit their views on contract management strategies and market competition. These interviews
laid the foundation for the importance of market management in contracting. The market
management phenomenon had been observed in earlier research. Building on that research, we
followed a grounded theory approach (see, for example, Sandfort 2000) with an iterative
strategy, in which our search of earlier interviews led us to the conclusion that market
management was an important phenomenon not fully explored in the existing literature. We then
modified interview questions to focus more explicitly on that topic, and searched for response
patterns that helped us to better understand market management, its dynamics, and its
implications. The interview data results guided the design of a formal large-sample survey on
contract management.

The resulting survey of local government contracting officials was based on a sample
drawn from The National League of Cities (NLC). In 2009, surveys were sent via electronic
mail and facsimile to a random sample of city managers and a convenience sample of functional
specialists responsible for human services, information technology, parks and recreation, public
works, and inspection services. The sample frame consists of 2,195 local government officials.
The dataset includes 332 observations, representing a response rate of 15%, a rate consistent with
other national surveys of local government officials (Warner and Heftez 2008) and past NLC
surveys.3

**Market Management as Transaction Cost**

Our interview and survey data confirm that public managers adopt numerous strategies
and behaviors and designed to ameliorate the shortcomings of thin provider markets, to maintain competition after contracts take effect, to ensure adequate competition for future purchases, and to otherwise strengthen vendor markets. These managers frequently seek additional providers through advertising the contract (beyond simple public posting requirements), and by searching and continually scanning their markets for potential vendors. They also routinely rely on their counterparts in other governments and on professional vendor associations to steer them to available vendors (Brown and Potoski 2004; Thurmaier and Wood 2002).

These market management activities fall into the category of “search and information costs” as developed in Dahlman’s (1979) discussion of transaction costs. Like other costs associated with economic exchange, search and information costs “represent resource losses” (148). Market management costs – one element of search and information costs - can be hidden in the details of contracting and the decision to outsource. The notion that managers must in fact search intensely and/or intervene by actively soliciting vendors into their contract markets may not be surprising to those actually involved in contract management; the idea that they spend significant resources doing so – and therefore may have fewer resources for other elements of contract management - is less apparent in the literature on transaction costs and on contracting in general.

Early interview data pointed to a tradeoff between procurement and monitoring. One structural response to this tradeoff is the assignment of contract oversight to functional specialists, while procurement officials manage the acquisition process. Yet our interviews suggest that much of the work to find bidders still fall to the functional managers. Managers expressed frustration with having “to spoon feed” acquisitions staff. This reaction is driven in part by the reality that effective “contracting officers are scarce resources.” To get the contract
where it needs to be – with enough high quality bidders – contract managers insert themselves into the procurement process. In doing so, these managers can run the risk of focusing less on monitoring their existing contracts while searching for additional vendors for future or current contracts.

Regardless of the reasons for low numbers of potential contract providers, market management adds to the transaction costs traditionally associated with contracting. At the same time, opportunity costs may result when administrative resources are diverted from the monitoring of performance and accountability.

Transaction costs related to managing the market should be considered when outsourcing decisions are made because they lower the net benefit of the contract to the government purchaser. Thus, they have the potential to reduce the value of the contract to the government purchaser and the citizens consuming the contracted service. In the following sections, we offer detail on some of these costs and their impacts on contract effectiveness – specifically, on public service quality and costs, and accountability to the public interest.

Managing markets by seeking, building and maintaining competition

Public managers contend with markets that range from conditions of low provider supply, to post-contract consolidation (and, in some cases, vendor monopoly), to markets constrained by legal and political forces in order to favor certain contractors (e.g., local and/or disadvantaged firms). Our analysis supports the notion that public managers have a keen understanding of the importance of competition, its impact on costs and other performance objectives, and that they respond strategically by intervening when markets are noncompetitive.

The costs of performance oversight, maintenance of service provision capacity, and attention to the dynamics of consolidation (complacency, the potential for moral hazard) are not
exclusive to the contracting situation. Managing in-house delivery, with the constraints of civil service systems, collective bargaining agreements, and the problems endemic to monopoly, is hardly cost-free. However, the purpose here is not to compare management costs between internal and external delivery modes, but rather to provide insights into the transaction costs associated with outsourcing.

As noted earlier, there is no firm definition of a competitive market. The local government manager respondents to our survey do not demonstrate consensus on this matter, either. Fifty-eight percent view the “optimal” number of potential contractors as five or higher, as illustrated in Table 1. And their supplier markets are sometimes also constrained by procurement policies that favor local, regional, or state vendors in order to internalize any resulting economic benefits from contracting. These constraints can create further complications for competitive sourcing when searching for qualified, available vendors in the marketplace.

As seen in Table 1, nearly one in five of the managers we surveyed (19%) indicated that they are not satisfied with the number of vendors available in the market for their contracts. Perhaps more importantly, over a third (34%) reported difficulty in finding high-quality vendors. Thus, in this sample at least, a notable portion of public managers view the market for high-quality contracted services as unsatisfactory. Eighteen percent of respondents report that they spend more time seeking vendors than they expected. In some cases, market management efforts do not succeed; 21% of the respondents reported that they are resigned to working with a small number of vendors because of failed efforts to expand the supplier market. Nearly one in five managers (18%) report that they spend more time chasing competition than they do on contract monitoring. These frequencies, while not high, are somewhat surprising in local governments, where competition is expected to be higher than for state and federal contracts.
Government contracting officials use a wide array of other approaches designed to stimulate provider competition. Remarks from our interviewed officials about “building an industry” – e.g., creating a supplier market – and “growing the competition” are representative of these dynamics. To illustrate, state Medicaid managed care administrators dedicated scarce staff resources to ongoing efforts to “keep [HMO] providers in the game” in order to strengthen the supplier market (Fossett et al. 2000; Johnston and Romzek 1999).

In addition to building markets for contracts, managers often need to intervene in the post-contract market because, over time, provider consolidation may create new market management challenges. Sclar (2000) warns policy makers that

> Even when a market initially appears to be competitive, policy makers must remain wary. Public-contract markets, like most markets, change quickly and continually. Often, the very act of creating a public-contracting process sets anticompetitive forces in motion. What begins as apparent competition quickly transforms itself by the second or third round of contracting into monopoly or, more typically, oligopoly” (70).

Among federal contractors, the vendor consolidation rate doubled from 2000 to 2007, and mid-size companies now hold 33 percent of federal contracts, down from 44 percent in 1995 (Goldfarb 2007). Federal contract managers face the reality that while “for many years, the middle tier of companies in the $200 billion federal services industry was regarded as a source of innovation and productivity,” consolidation creates an environment in which companies are likely to become less innovative, more standardized, more bureaucratized, more powerful in the procurement relationship, and more dominant in the market (Goldfarb 2007, D01; see also Schlesinger et al. 1986). There is also evidence that over time, contract performance incentives need to be regularly re-calibrated (Marvel and Marvel 2007); as a result, as contracts progress,
more staff resources are required for fine-tuning incentives, and less remains for conventional contract oversight.

Interviews with contract managers reveal that for some, consolidation is a constant concern. For instance, administrators of state child welfare contract organizations reported that “vertical integration” was increasingly attractive as cost pressures made sub-contracting less profitable and the service provider market shrunk. Small, precariously financed contract and subcontract organizations fully recognize their vulnerability under these conditions (Romzek and Johnston 2005) as they compete increasingly with large, dominant contractors. As Graddy and Chen (2006) observe, “most lead agencies have been successful in renewing their contracts” for local family preservation programs in Los Angeles, “some for several cycles. Thus, just as we find in franchise arrangements, this structure could create long-term contracts that begin to look like monopolies” (548-9). Schlesinger et al. (1986) described the multiple forces encouraging consolidation among contractors for mental health services in Massachusetts – forces such as economies of scale in both provision and bidding.

These consolidation dynamics push contract managers to devote more resources to stimulating provider markets, in part for future contract cycles. Yet as they strive to expand and enhance competition, managers are relatively powerless against forces that lead some contractors to leave the market, others to consolidate, and still others to fail in the face of competition from large, entrenched organizations. Thus while contracts are active, managers continually scan for new vendors for the next cycle, in part to address consolidation issues, and in part to create some purchasing advantage over existing contractors who correctly assume that they can use incumbency to enhance their competitive position. Nearly half (42%) of our survey respondents report that they seek additional vendors during active contracts for the next outsourcing cycle.
and 16% indicate that bidder supply for specific services decreases over time.

Consolidation also obliges managers in some markets to devote energy to the retention of existing contractors that, for a variety of reasons, may wish to withdraw from their current contracts. They also spend a great deal of effort on helping contractors to improve their performance. DeHoog (1990), Van Slyke (2007), and others discuss these mentoring activities under the rubric of “relationship contracting” and “stewardship.” The nurturing and mentoring of contractors is costly. Our survey responses support this notion. Seventy-four percent of the respondents spend “some” or “most” of their time helping contractors fine-tune their performance. This element of contract transaction costs is probably more widespread as contracting has expanded into new service areas, and it deserves more scrutiny.

Additional market management strategies include the creation of competition by requiring public organizations to bid on public contracts. Warner and Hefetz (2008) find that “mixed delivery” – this combination of public and private service provision – has become a common alternative to competitive bidding in local governments because “experienced managers were more likely to use mixed delivery rather than trust the market to ensure cost efficiency and failsafe service” (10). According to our survey, 89% of local government managers use mixed delivery at least some of the time, and 33% report that they have created new vendors through existing organizations (by encouraging them to create subsidiaries) to increase supply.

The healthiest levels of competition may in fact be found not among the primary organizations with which the government contracts, but instead among the multiple vendors with sub-contracts. Interview respondents note that this subcontractor market, in most instances, cannot be directly monitored, raising critical accountability and responsiveness issues, not to mention cost questions. Despite the competition they bring to the service delivery system, these
subcontracts – and their distance from proximate state oversight – heighten the costs of program monitoring and performance improvement. Indeed, 60% of our survey responses indicate that subcontractors complicate their oversight work.

These detailed insights into competition enhancement strategies expose the contours of “market management” strategies and activities designed to create, sustain, and stimulate provider competition. Managers’ responses illustrate the impacts on staff time and energy, and help put a face on the transaction costs associated with contracting under conditions of low competition. The bottom line is that when markets are noncompetitive, increasingly scarce administrative resources may be stretched even thinner, and diversion from oversight functions may diminish returns from contracting.

Our multivariate models provide further insights into these dynamics. In the following sections, we examine relationships between market management activities – transaction costs that are often obscured – and contract effectiveness. We focus specifically on managers’ perceptions of effectiveness in terms of contract performance and accountability to the public interest.

**Measures and Models**

To examine the impact of market management on effective contract performance, we constructed three multivariate models with unique dependent variables that give us separate and quite distinct measures of contract performance and accountability:

- **Service quality** - A measure of contract performance based on the respondent’s agreement with the statement that “most of my agency/dept contracts produce high-quality services”; the variable is ordinal coded 1-5 based on a Likert-type scale; 5 indicates high agreement
- **Service cost reduction** – An ordinal measure of contract performance based on respondent agreement that “most of my agency/dept contracts reduce costs” (coded 1-5; 5 indicates high agreement).

- **Public value enhancement** - A measure of accountability based on respondent perceptions that contracting enhances citizen interests. Respondents indicated their agreement that “our citizens are made better off by most of my agency/dept contracts” (coded 1-5; 5 indicates high agreement).

The independent variable of interest relates to market management. *Managing the market* is an index variable developed from responses to questions designed to elicit managers’ perceptions of their market management efforts. The index relied on responses to the following questions: “I spend more time spent seeking vendors than I expected I would when I began working with contracts”; “It is difficult to find enough high-quality vendors”; “I sometimes resign myself to working with too few bidders because my efforts to find more have failed”. We hypothesize that this variable will be negatively associated with contract effectiveness if only because of resources diverted from other contract management work.

We also include several control variables, recognizing that contract effectiveness is determined by a variety of factors. (Expected direction of effects is included in parentheses.)

- **Constraints – Local** - An ordinal variable that measures managers’ perceptions of the extent to which their agencies extend preferences to local vendors. This variable has a direct impact on the supply of available providers as it constrains the manager to use vendors within the locality (-)

- **Perspective on nongovernmental sector** – Controls for respondent’s general view on the nongovernmental contracting sector. An ordinal variable that measures
perception that contractors are more interested in the “bottom line” than other goals. Managers with more unfavorable views of nongovernmental organizations are expected to be less satisfied with contract effectiveness (-)

- **Contract management capacity** – It is expected that greater management capacity by the purchasing organization will result in better contracting outcomes as they have more resources to bring to bear to contract management. Two variables capture managerial capacity:
  
  - *Expertise* – Ordinal variable measures managers’ perceptions of agency expertise in contract management (+)
  
  - *Education* – Ordinal variable measures respondents’ level of education (+)

- **Organizational commitment** – Two variables designed to control for organizational support for managerial innovation and performance contracting:
  
  - *Innovation* – Ordinal variable measures managers’ perceptions that they are rewarded for innovation in their work, to control for the impact of managerial innovation on contract effectiveness (+)
  
  - *Organizational commitment to performance contracting* - Index variable measures managers’ perceptions that their organization supports performance contracting. Because of the debate in the literature on performance contracting (Behn and Kant 1999; Frederickson and Frederickson 2006), we have no directional expectation for this variable, but seek to both control for and determine whether it has a statistical impact on contract effectiveness (+/-)

- **State political culture** – Binary variables that represent Elazar’s (1972) state
political culture categories. The two used in the models – Traditionalistic and Individualistic – are each compared to the excluded category of states coded “Moralistic.” The expectation is that because of the “good government” culture that prevails in the moralistic states, contract effectiveness may be lower in the Traditionalistic and Individualistic states (relative to effectiveness in moralistic states. (-)

- **Service area** – A series of binary variables indicating whether the contract pertains to building inspection, city administration, human services, information technology, parks and recreation, or public works.

Descriptive statistics for all independent variables are presented in table 2.

[Insert table 2 about here]

**Results and Discussion**

In addition to the multivariate analysis results described below, we found interesting relevant patterns of response from public managers on a number of dimensions. First, frequency distributions provide evidence that public managers typically embrace contracting in the generic sense as 93% of the respondents “generally support the concept of government contracting” (see Table 1). But at the same time, they appear to also express preference for in-house provision, constraining their perceived enthusiasm for contracting, as 69% would select in-house provision over contracting if given the choice. This suggests that for their “own” services, they are less supportive of contracting than in a generic sense.

Respondents were asked to consider benefits and drawbacks of contracting in their agency. When public managers evaluate the greatest single benefit of contracting, the consensus is not clear – 35% of public managers cite cost savings, 32% cite increased flexibility in service
delivery, 14% cite increased staffing flexibility, while only 13% cite higher quality goods/services. Accountability is a more commonly held key concern for local government officials dealing with contracts; 47% of the survey respondents indicate “difficulty of holding contractors accountable for their performance” as the greatest single drawback of contracting. This holds true for respondents across all service areas; public works, information technology, inspection services, parks and recreation, human services, and city managers agree that accountability is the dominant drawback of contracting.

Table 3 reports the multivariate regression results for three sets of contract effectiveness models. Because the dependent variables are ordinal, we used an ordered logit model. We found that the significance and direction of the independent variables in the model were essentially unchanged when using ordinary least squares (OLS) regression; therefore for ease of discussion, OLS coefficients and standard errors are also presented in Table 4.6

Simultaneity is a concern with the analysis presented here. We can reasonably ask whether managers turn to market management in response to poor contract effectiveness (e.g., poor effectiveness “causes” a market management reaction), or whether market management detracts from contract effectiveness (e.g., market management “causes” reduced effectiveness). Our clear sense based on interview data is that market management is a response to thin markets.

Accordingly, we attempt to deal with the reverse causality in two ways. First, we use instrumental variables in a two-stage least squares regression models across the three sets of multivariate models presented.7 The results of the two-stage least squares regressions, also reported in Table 3, indicate that both the directions and significance of the key independent variable (market management) are consistent with the logit and OLS models.

The estimated coefficients for managing the market are consistently negative and
statistically significant for the service quality and public value models (but not for the 2SLS version of the cost reduction model). This suggests that contract effectiveness diminishes as market management becomes more dominant in contract management. Our key hypothesis is therefore supported for two of our three effectiveness models. Controlling for other determinants of contract effectiveness, managerial interventions in public service markets are associated with perceptions of lower contracting effectiveness when measured as service *quality improvement or public value enhancement.*

[Insert table 3 about here]

We expected constrained markets to depress contract effectiveness, but these results suggest otherwise. For all models, favoring local firms through constraints on bid access is associated with higher perceived contract effectiveness, though the coefficients are mostly insignificant.\(^8\) Perceived effectiveness appeared to be statistically lower when contract managers had stronger beliefs that contractors aim primarily for the “bottom line” at the expense of other values, though the estimates for the public value enhancement model were not significant. In other words, managers who perceive different sets of motives for governmental and nongovernmental organizations are less likely to describe their agencies’ contracts as successful. While interesting, this result is derived mainly because of the need to include individual manager biases in analyzing contract effectiveness.

In terms of perceived contract management capacity, a positive relationship emerges for all three effectiveness models (but the 2SLS estimates are significant only for the cost reduction model. Respondent perceptions of contract effectiveness are higher if they also rate their organizations’ capacity highly. This is no surprise, but is a troubling result because of growing concern throughout all levels of government over eroding administrative capacity. The
coefficients for respondent education level behaved similarly, indicating positive but mostly insignificant relationships. Results are mixed for organizational support for contract management, as measured by support for innovative administration and for performance contracting. The innovation variable, which is included to control for any potential impact of innovation on contract effectiveness, generates positive coefficients, but are significant only the 2SLS version in the service quality model. The variable measuring organizational support for performance contracting appears to have no statistical effect, although all estimates are positive. Consistent with large segments of the performance literature, these results provide qualified support for the performance strategy as applied in the contracting arena (Radin 2006).

Local governments operate in contracting environments that may be regulated to some extent by the states. The state political culture variables, included to capture the effects of state policy and political perspective on contracting, did not generate consistent or significant impacts. Service type variables exhibited mixed results were mixed; the most consistent results indicate that perceived effectiveness is lower for building inspection and parks/recreation in the public value model (relative to other services).

To summarize, these results provide evidence that public managers intervene in provider supply markets by devoting scared administrative resources to fortifying and strengthening those markets. These market management activities are associated with perceptions of reduced contract performance and accountability. The market management variables in these models support the patterns observed in the qualitative component of this research. These results also reinforce the argument that management capacity enhances contract effectiveness. Managers in organizations with higher administrative capacity reported higher contract effectiveness. Other theoretically relevant control variables performed as expected in
terms of direction, but were typically not significant determinants of contract effectiveness. We recognize the limitations of the study. To begin, the analysis relies on perceptual data—managers’ perceptions of contract effectiveness - in part because of the dearth of “outcomes” data for government contracts. Contracting scholarship has been advanced through the use of perceptual data – particularly with numerous studies using ICMA data on outsourcing (select studies include: Fernandez, 2009; Fernandez, et al., 2008; Lamothe, et al., 2008; Warner & Hefetz, 2008, 2004, 2002; Hefetz & Warner, 2004; Brown & Potoski, 2003).

Although reverse causality/simultaneity remain a theoretical concern, both the interview data and statistical results (with 2SLS models) suggest that market management strategies represent a response to low competition, and they may reduce contract effectiveness. We are currently conducting further analyses of these data for insights into why this is the case, and are focusing on the opportunity costs created by the diversion of fixed management resources from contract oversight to market management.

Our interview data support our argument that market management strategies represent a response to thin provider markets and that they drain administrative resources that might be directed at contract effectiveness. One manager reported that he seeks to "incite competition" because the demand for the outsourced service far outweighs the existing pool of providers. Another manager reported that he spends 30 percent of his time on market research and soliciting additional firms to bid on agency contracts; he is, in essence, building a market for his agency’s contracts, yet he is not dissatisfied with the effectiveness of current contractors. Still another manager stated that she was "completely reliant on one contractor;" in response, her agency hired an acquisition specialist whose primary function was to "introduce competition" to build a healthier market. Another manager devotes resources to building a market to reduce the
influence of two monopoly providers that quickly buy start-up competitors; the current contract is not particularly problematic, but the manager is keenly aware of his agency’s vulnerability in the current market. These managers clearly place a good deal of emphasis on the role of competition in contracting, and were motivated by perceived weakness in the provider market and concerns about the position of the government purchaser in thin markets.

We also cannot generalize beyond this particular survey sample, which is grounded in local government, but do note that many of the patterns observed in the survey data are also supported in our qualitative data, which spans levels of government and service areas. Nor do we mean to imply that all markets are noncompetitive; rather, we wish here to share insights of managers who do deal with thin provider markets.

**Conclusion**

Advocates of privatization and contracting stress that competition is the chief driver of improved efficiency and performance in government production and service delivery, yet this analysis indicates that provider competition can be both costly and difficult to achieve and sustain. We find that notable levels of administrative resources are devoted to “managing the market” by creating, stimulating, and maintaining competition. As a result, scarce administrative resources may be stretched, pitting market management costs against contract performance and accountability.

In essence, our research demonstrates that managing the market entails real costs. Market management is an important – but often overlooked – element of the transaction costs associated with the outsourcing of public goods and services. Because contract management costs – including market management costs – often are not factored into contracting decisions, the administrative resources needed for effective contracting may be insufficient, compromising
the potential returns of outsourcing.

Effective contract oversight and accountability are difficult to achieve under the best of conditions. But as the scope of government contracting expands beyond traditional bounds, contract managers are more and more likely to confront weak provider markets. Our survey results suggest that under such conditions, contract managers intervene to manage the market. These interventions can reduce contract effectiveness and accountability, perhaps because they divert resources from other elements of contract management. The reasons underlying the inverse relationship reported here – between market management and contract effectiveness – deserve attention in future research.
Endnotes

1 Thanks are extended to Chris Hoene, Director, Center for Research & Innovation, and Christy McFarland, Program Director, Center for Research & Innovation, The National League of Cities for assistance in collecting the data used in this paper.

2 Savas (2002) indicates that even in New York City, where contracts for homeless services might be expected to attract several bidders, three or fewer bids were typical. Of a total of 36 homeless service contracts, 17 attracted only one or two bids (although there was interest from organizations that lacked the requisite qualifications). While other social services might fare better, the fact remains that for many programs, high quality providers are scarce.

3 The sample is drawn from The National League of Cities’ Association Management System, which contains contact information from over 40,000 local government officials across the U.S. Respondents are underrepresented from cities the Northeast (6%) and overrepresented from cities in western states (38%). Cities with populations over 25,000 were included in the sample frame, and while cities over 300,000 are generally underrepresented (12%), representation is well distributed across small and mid-size municipalities. Two analyses were performed to test representativeness of the sample. First, we regressed population, region, and service area of the respondent on whether the survey was responded to. Not surprisingly, cities with higher population were more likely to respond and cities in the Northeast were less likely to respond than those in the West (comparison category). This regional representation holds for other NLC surveys. Next, we tested these characteristics on whether the respondent finished the survey. We found city managers were more likely than other managers to complete the survey – this makes sense because city managers are often the focus of survey efforts from NLC and other organizations and thus more familiar with research. While managers in the NE were overall less likely to respond to the survey as previously mentioned, they were more likely to complete the survey if they started it than those in the West (comparison category).

4 In some situations, “contracting back in,” which eliminates competition altogether (Hefetz and Warner 2004) may be required to best ensure quality service delivery and accountability. Contracting back may be most likely in thin provider markets.

5 Because many of the independent variables in the model are ordinal (five-point Likert-type scale responses), we created dummy variables for each of the independent variables in the model (e.g. agree and strongly agree coded 1, all else 0; neutral coded 1, all else 0; strongly disagree and disagree coded 1, all else 0). The “agree” and “disagree” dummies were included in an alternate OLS model, using “neutral” as the reference category. Modeling using the dummy variables did not change the significance or direction of the independent variables. Because there was no change, we included the ordinal variables in the final models presented. There is precedence for using ordinal responses for perceptional data (see Fernandez 2009).

6 The sample size for all three models – 196 – reflects missing responses.

7 The instruments used to predict the key market management independent variables include included the number of years the respondent worked in the private sector on the assumption that those with greater private sector experience may be more aware of the importance of a competitive supply environment. Additional instrumental variables included jurisdiction population and respondent agreement that winning bidders on government contracts enjoy a competitive advantage in the next contract cycle. Inclusion of the private sector work variable reduced the sample size to 145; relying on the other two instruments only did not change the results. To maintain the larger sample size, we report the two variable version here.

8 A similar variable designed to capture the impact of preferences for traditionally disadvantaged businesses (owned by women and minorities) did not generate consistent or significant coefficients so it was dropped from these models.

9 Elimination of the state political culture variables did not affect the models’ results. Separate models that used clustered standard errors to discern the impacts of individual state effects indicated little effect.

10 Models that included a market supply control variable generated nearly identical results.
References


### Table 1. Responses to Selected Survey Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In your opinion, what is the optimal number of vendors for any contract?</strong></td>
<td>1: 2%</td>
</tr>
<tr>
<td></td>
<td>2: 3%</td>
</tr>
<tr>
<td></td>
<td>3: 19%</td>
</tr>
<tr>
<td></td>
<td>4: 18%</td>
</tr>
<tr>
<td></td>
<td>5: 29%</td>
</tr>
<tr>
<td></td>
<td>6+: 29%</td>
</tr>
<tr>
<td>My agency’s contracting policies favor regional/local vendors</td>
<td>51% Agree</td>
</tr>
<tr>
<td>I am satisfied with number of vendors available in the market for my agency/dept contracts</td>
<td>19% Disagree</td>
</tr>
<tr>
<td>It is difficult to find enough high quality vendors</td>
<td>34% Agree</td>
</tr>
<tr>
<td>I spend more time finding vendors than expected</td>
<td>18% Agree</td>
</tr>
<tr>
<td>I sometimes resign myself to working with a very small number of vendors because my efforts to find more have failed</td>
<td>21% Agree</td>
</tr>
<tr>
<td>I spend more time finding vendors than I do on monitoring/oversight of existing contractors</td>
<td>18% Agree</td>
</tr>
<tr>
<td>For contracts currently in place, I continue to seek additional vendors with the next contract cycle in mind</td>
<td>42% Agree</td>
</tr>
<tr>
<td>The number of available bidders for an individual contract seems to decrease over time</td>
<td>16% Agree</td>
</tr>
<tr>
<td>Amount of my time spent helping contractors with performance issues</td>
<td>74% - some or most of my time</td>
</tr>
<tr>
<td>I used mixed delivery for my agency contracts</td>
<td>89% - some, most, or all of the time</td>
</tr>
<tr>
<td>I create new vendors (for example, by encourage outside organizations to set up subsidiaries for contract work)</td>
<td>33% - some, most, or all of the time</td>
</tr>
<tr>
<td>My monitoring work becomes more complicated when contractors use subcontractors</td>
<td>60% Agree</td>
</tr>
<tr>
<td>I generally support the concept of government contracting</td>
<td>93% Agree</td>
</tr>
<tr>
<td>If I had to choose, I would prefer to provide services in house</td>
<td>69% Agree</td>
</tr>
<tr>
<td><strong>What is the greatest single benefit to your agency/department from its contracts for goods or public service delivery?</strong></td>
<td>Cost savings 108 (35%)</td>
</tr>
<tr>
<td></td>
<td>Higher quality goods/services 40 (13%)</td>
</tr>
<tr>
<td></td>
<td>More flexibility in service delivery 98 (32%)</td>
</tr>
<tr>
<td></td>
<td>More flexibility in staffing 43 (14%)</td>
</tr>
<tr>
<td></td>
<td>Other 21 (7%)</td>
</tr>
<tr>
<td><strong>What is the greatest single drawback to your agency/department from its contracts for goods or public service delivery?</strong></td>
<td>Holding contractors accountable 142 (47%)</td>
</tr>
<tr>
<td></td>
<td>Loss of in-house expertise 72 (24%)</td>
</tr>
<tr>
<td></td>
<td>Lower cost savings than anticipated 39 (13%)</td>
</tr>
<tr>
<td></td>
<td>Other 50 (17%)</td>
</tr>
</tbody>
</table>
### Table 2. Descriptive Statistics

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing the Market</td>
<td>2.653</td>
<td>0.746</td>
<td>1</td>
<td>4.667</td>
</tr>
<tr>
<td>Constraints – Local Bidders Preferred</td>
<td>3.287</td>
<td>1.015</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Manager’s Perspective on Nongovernmental Sector</td>
<td>3.182</td>
<td>0.871</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Contract Management Capacity (expertise) in Agency</td>
<td>3.619</td>
<td>0.867</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Contract Management Capacity (education) – Manager</td>
<td>4.944</td>
<td>1.114</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Innovation Rewarded by Organization</td>
<td>3.391</td>
<td>0.904</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Organizational Commitment to Performance Contracting</td>
<td>2.606</td>
<td>0.543</td>
<td>1</td>
<td>4.25</td>
</tr>
<tr>
<td>State political culture – Individualistic (Elazar)</td>
<td>0.172</td>
<td>0.377</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>State political culture – Traditionalistic (Elazar)</td>
<td>0.409</td>
<td>0.493</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>State political culture – Moralistic (Elazar)</td>
<td>0.419</td>
<td>0.494</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Contract Service Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Inspection</td>
<td>0.136</td>
<td>0.343</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>City Administration</td>
<td>0.219</td>
<td>0.413</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Human Services</td>
<td>0.072</td>
<td>0.259</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Information Technology</td>
<td>0.123</td>
<td>0.329</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Parks and Recreation</td>
<td>0.238</td>
<td>0.426</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Public Works</td>
<td>0.214</td>
<td>0.411</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 3. Models of Contract Effectiveness (standard errors in parentheses)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1 Service Quality</th>
<th>Model 2 Service Cost Reduction</th>
<th>Model 3 Public Value Enhancement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS</td>
<td>2SLS</td>
<td>Ordered logit</td>
</tr>
<tr>
<td>Managing the Market</td>
<td>-0.142*** (0.060)</td>
<td>-0.408* (0.280)</td>
<td>-0.469*** (0.189)</td>
</tr>
<tr>
<td>Constraints – Local Bidders Preferred</td>
<td>0.044 (0.045)</td>
<td>0.036 (0.049)</td>
<td>0.086 (0.137)</td>
</tr>
<tr>
<td>Manager’s Perspective on Nongovernmental Sector</td>
<td>-0.200*** (0.052)</td>
<td>-0.196*** (0.054)</td>
<td>-0.402*** (0.163)</td>
</tr>
<tr>
<td>Contract Management Capacity (education) – Manager</td>
<td>0.096** (0.053)</td>
<td>0.067 (0.063)</td>
<td>0.402*** (0.166)</td>
</tr>
<tr>
<td>Innovation Rewarded by Organization</td>
<td>0.077** (0.042)</td>
<td>0.059 (0.047)</td>
<td>0.050 (0.125)</td>
</tr>
<tr>
<td>Organizational Commitment to Performance Contracting</td>
<td>0.077** (0.051)</td>
<td>0.083* (0.056)</td>
<td>0.205 (0.157)</td>
</tr>
<tr>
<td>State political culture – Individualistic (Elazar)</td>
<td>-0.164 (0.129)</td>
<td>-0.133 (0.140)</td>
<td>-0.253 (0.393)</td>
</tr>
<tr>
<td>State political culture – Traditionalistic (Elazar)</td>
<td>-0.109 (0.102)</td>
<td>-0.057 (0.119)</td>
<td>0.420 (0.312)</td>
</tr>
<tr>
<td>Contract Service Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Inspection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Services</td>
<td>0.324* (0.220)</td>
<td>0.245 (0.246)</td>
<td>0.331 (0.728)</td>
</tr>
<tr>
<td>Information Technology</td>
<td>-0.209 (0.163)</td>
<td>-0.282* (0.187)</td>
<td>1.294*** (0.507)</td>
</tr>
<tr>
<td>Parks and Recreation</td>
<td>-0.123 (0.131)</td>
<td>-0.157 (0.142)</td>
<td>-0.318 (0.402)</td>
</tr>
<tr>
<td>Public Works</td>
<td>-0.095 (0.128)</td>
<td>-0.157 (0.149)</td>
<td>-0.467 (0.399)</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.631 (0.485)</td>
<td>4.575 (1.090)</td>
<td>3.183 (0.649)</td>
</tr>
</tbody>
</table>

N = 196
*p<.15 **p<.10 ***p<.05