

Closer than “Arms Length”:
Understanding the Factors Influencing the Development of
Collaborative Contracting Relationships

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ABSTRACT

This paper examines how contract characteristics, contractor traits, and environmental factors influence the development of collaborative relationships between contractors and government agencies. To investigate this research question, we use data from the Partnership Impact Research Project, a three-round longitudinal survey of over one hundred child care centers and Head Start agencies in Ohio. The following variables are positively associated with relationship strength: contract specificity, contractor service quality, and organizational affiliation. On the other hand, financial autonomy and nonprofit status both have negative associations with relationship strength. We also find that a contractor's internal management capacity is positively associated with the development of shared procedures governing contractual relationships.

INTRODUCTION

Holding contractors accountable for the services they deliver is a key challenge facing public managers involved in overseeing federal, state, and local contracts with nonprofit and for-profit organizations (Blasi, 2002; Breaux, Duncan, & Keller, 2002; Coats, 2002; Dicke, 2002; Johnston & Romzek, 1999; Klingner, Nalbandian, & Romzek, 2002; Ott & Dicke, 2000; Romzek & Johnston, 2005). Public managers use a variety of different strategies while designing their relationships with contractors in an effort to ensure that services meet the government's expectations and to minimize the likelihood of contractors' behaving opportunistically. One such strategy involves fostering strong, collaborative relationships with the private partners (Beinecke & DeFillippi, 1999; DeHoog, 1990; Sclar, 2000). Indicative of this, there is a growing recognition of trust and cooperation playing a key role in many public contracts (Beinecke & DeFillippi, 1999; DeHoog, 1990; Johnston & Romzek, 2008; Lambright, 2009; Romzek & Johnston, 2005; Smith, 1996; Van Slyke, 2007). In the contracting literature, these types of contracts are often referred to as "relational".

As governments continue to rely on nonprofit and for-profit organizations in the delivery of public services, concerns about public managers' capacity to effectively monitor performance still persist, and the "black box" of accountability mechanisms designed to ensure effective implementation of public services needs to be better understood. In particular, little is known about the determinants of collaborative contract governance. Scholars have detailed the service characteristics that are likely to be associated with the adoption of collaborative contractual arrangements (Amirkhanyan, 2009; Beinecke & DeFillippi, 1999; Kim, 2005; Sclar, 2000). However, less evidence is available on the organizational and environmental factors that facilitate the development of these types of contracting relationships (Van Slyke, 2009). By

focusing on one service area, this paper looks beyond service characteristics as explanations for why collaborative contractual arrangements are developed and utilized. We provide insights into how contract characteristics, contractor traits, and environmental factors influence the development of strong relationships between the contractor and government. As a part of our analysis, we examine an important debate in the contracting literature and empirically test whether an inverse or complementary relationship exists between collaboration and the degree of contract specification.

The data for this study come from the Partnership Impact Research Project, a three-round longitudinal survey of over one hundred child care centers and Head Start agencies in Ohio. This service area is particularly well-suited for the research questions examined in this study. First, the lack of competition in the social service field often translates into long-term relationships forming between government agencies and their contractors (Johnston & Romzek, 2008; Lambright, 2009; Romzek & Johnston, 2005; Smith, 1996; Smith and Smyth, 1996). Second, the intangible nature of the outcomes in this area commonly precludes government agencies from specifying all of their expectations in advance of contract implementation and forces them to rely on cooperation and trust instead.

We begin this paper by discussing contract relationship design strategies used for minimizing opportunistic behavior by contractors. We also identify several contract characteristics, contractor traits and environmental factors that may be associated with the development of strong relationships between the government and the contractor. Following this, we detail our methodology and findings. This paper concludes by exploring the theoretical and practical implications of our study for public managers pursuing collaborative approaches to contracting.

STRATEGIES FOR MINIMIZING CONTRACTOR OPPORTUNISM

Situations in which a government agency contracts with another organization to deliver a public good or service can be conceptualized as a principal-agent relationship. In this context, the government delegates the task and is considered to be the “principal” while the contractor is responsible for completing the task and is viewed as an “agent.” In contracting relationships, the contractor typically has more information than the government has which creates concerns about opportunism, defined by Williamson as “a lack of candor or honesty in transaction, to include self-interest with guile” (1975, p. 9). Opportunistic behavior by contractors creates two key concerns in principal-agent relationships: adverse selection and moral hazard. The former is a concern at the onset of contracting relationships and is what Arrow (1984) refers to as “hidden information.” It involves an agent’s propensity to misrepresent its ability to meet its contractual obligations (Eisenhardt, 1989; Van Slyke, 2007). Moral hazard, on the other hand, is a concern during contract implementation and is what Arrow (1984) refers to as “hidden action.” Moral hazard occurs when an agent exploits its informational advantage over the principal and does not fulfill its contractual responsibilities (Eisenhardt, 1989; Sclar, 2000; Van Slyke, 2007). Governments are more vulnerable to contractors behaving opportunistically when the services being contracted have a high level of asset-specificity² and it is difficult to measure the quality and/or quantity of services being delivered (Brown, Potoski, & Van Slyke, 2006).

One response to the possibility of opportunistic behavior by contractors involves carefully detailing the terms and the procedures governing service delivery (Beinecke & DeFillippi, 1999; Brown, Potoski, & Van Slyke, 2006; Sclar, 2000). However, the cognitive limits of individuals often make contract specification challenging for several reasons: (1) it is

² Asset specificity refers to the extent to which the physical infrastructure, technology, and knowledge and skills needed to produce a particular service can be used in the production of other services.

impossible to anticipate all possible contingencies prior to contract implementation, (2) even in cases where contingencies can be anticipated, describing them in a contract can be costly, and (3) contract enforcement is also frequently cost prohibitive (Milgrom & Roberts, 1992; Tirole, 1999). Moreover, creating elaborate contracts without at the same time fostering trust may simply motivate individuals to come up with creative ways to game the system and avoid fulfilling their contractual obligations (Granovetter, 1985).

An alternative strategy designed to minimize the possibility of contractor opportunism is for the government to focus on developing strong relationships by building trust and pursuing cooperative approaches to contract management problems (Beinecke & DeFillippi, 1999; DeHoog, 1990; Sclar, 2000). As Arrow points out, “It saves a lot of trouble to have a fair degree of reliance in other people’s word (1974, p. 23).” In these types of contracting relationships, the government and contractor are equal partners involved in program management as well as contract renewal (DeHoog, 1990). The contracting parties are willing to make short-term sacrifices for the partnership because they recognize that it is in their long-term interest to sustain the relationship (Smith, 1996). There is considerable decentralization and flexibility in trust-based models of contracting. The government provides contractors with a great deal of discretion and in many cases defers to the contractor’s expertise (Campbell & Harris, 1993; DeHoog, 1990), relying on common professional standards to limit opportunistic behavior (Bennett & Ferlie, 1996; DeHoog, 1990). Trust-based models of contracting have been used in a broad array of service areas including infectious disease management (Allen, Croxson, Roberts, Archibald, Crawshaw, & Taylor, 2002), Medicaid managed care (Beinecke & DeFillippi, 1999), HIV/AIDS services (Bennett & Ferlie, 1996), foster care services (Klingner, Nalbandian, &

Romzek, 2002), early childhood programs (Lambright, 2009), social services (Romzek & Johnston, 2005; Smith, 1996), and human waste collection (Kim, 2005).

While collaborative approaches to contracting have been widely used, they have some important limitations. Trust-based relationships are still vulnerable to opportunism, particularly in situations where there is a significant informational asymmetry between the government and contractor (DeHoog, 1990; Entwistle & Martin, 2005). In addition, collaborative relationships can foster a sense of complacency (DeHoog, 1990) and may stifle innovation if partners are unwilling to critique each other for fear of damaging their relationship (Entwistle & Martin, 2005).

FACTORS INFLUENCING RELATIONSHIP STRENGTH

The adoption of collaborative contract management strategies in the field of social services is not well understood. In this section, we develop several hypotheses on a variety of factors likely to influence the development of strong relationships between the government and the contractor. These factors have been grouped into the broader categories of contract characteristics, contractor traits, and environmental conditions.

Contract Specificity. In order to effectively manage contracts, the government must maintain a careful balance between trust and hands-on monitoring (Bouckaert & Peters, 2002). In the past, contracts have been conceptualized as lying on a continuum between transactional contracting at one end and relational contracting at the other end (Beinecke & DeFillippi, 1999; MacNeil, 1974). Transactional contracts are short-term, economic exchanges based on carefully detailed contractual agreements and close oversight of the provider's compliance. In contrast, relational contracts are based on open-ended long-term exchanges in which personal ties and informal communication foster trust and flexible approaches to solving implementation problems.

Consistent with this perspective, some scholars have argued trust and contract specification have an inverse relationship: as trust increases, the need for formal contract specification decreases (Gulati, 1995; Ring & Van de Ven, 1994; Van Slyke, 2009). By carefully detailing contractual terms and the procedures governing the contracting relationship, the government is signaling a lack of trust in the contractor (Van Slyke, 2009).

Our first hypothesis focuses on the relationship between contract specification and relationship strength and challenges the interpretation presented above. Instead, we suggest there is a positive relationship between these two factors. In contrast to the argument presented above, some scholars have argued that trust and contract specification play complementary roles (Allen et al., 2002; Deakin, Lane, & Wilkinson, 1994). Working together as part of the contract specification process can build trust (Allen et al., 2002). Contract specification can strengthen the relationship between the government and the contractor by reducing government concerns that the contractor will behave opportunistically and by reducing contractor concerns that the government will arbitrarily exercise its authority. It can also foster a shared understanding of processes and procedures since contractors have a chance to provide feedback and request clarifications on the government's expectations (Amirkhanyan, 2009). Hence, formal relationships can serve as the foundation for the government and contractor developing stronger informal relationships. The presence of trust and contract specificity in contracting relationships combine to create both "a carrot and a stick"; the existence of written procedures and sanctions ensures that the basic parameters of the contract are taken seriously, while collaborative ties and discussions may ensure that these procedures are well understood and well received.

Hypothesis 1: Contract specification is positively associated with relationship strength.

Relationship Length. Another contract characteristic that may be associated with a collaborative approach to contracting is relationship length. Trust between parties is a learning process (Lorenz, 1999; Vangen & Huxham, 2003) and tends to develop over time (Thomson & Perry, 2006; Van Slyke, 2007, 2009). Reflecting this, government officials may be more likely to adopt a cooperative model of contracting after several years of having a satisfactory but more formal relationship with a particular contractor (DeHoog, 1990). Given this, we suggest that longer contracting partnerships will result in stronger relationships than shorter ones, keeping constant the contractor's performance during this period.

Hypothesis 2: *Relationship length is positively associated with relationship strength.*

Internal Management Capacity. Contractor traits are also likely to play a role in the development of strong relationships between the government and the contractor. Contractors must have enough time, staff, and expertise to implement contracts (DeHoog, 1990). Some contractors have skilled managers who invest their time and energy in improving the internal processes and optimizing service quality while other contractors lack such expertise. The most skilled managers are often those who can manage not only “within” but also “across” organizations – building informal ties and developing shared understandings with their partners that are essential for effective service implementation. In other words, we expect a contractor's capacity to effectively manage internal relationships to translate into the capacity to manage external relationships as well.

Hypothesis 3: *A contractor's internal management capacity is positively associated with relationship strength.*

Contractor Ownership Status. Other contractor traits that may influence the development of collaborative contracting relationships include a contractor's status as a nonprofit or faith-based organization. Public managers may perceive nonprofit contractors as

more trustworthy than for-profit contractors because nonprofits are required to invest any profits back into their organizations and cannot distribute excess revenues to their shareholders (Hansman, 1987). Thus, nonprofit organizations may be less likely to take advantage of customers by raising prices or cutting costs in situations where competition is limited and service quality is hard to verify such as in the field of social services. Nonprofit managers are also constrained by the “reasonable compensation” requirement which may result in the government viewing its nonprofit partners as being more mission-oriented, socially-conscious, and hence less opportunistic. The risk of jeopardizing private donations and their tax exempt status may further deter nonprofit organizations from behaving opportunistically. Consistent with this, Van Slyke (2009) reports that public managers had higher levels of initial trust in nonprofit service providers compared to for-profit service providers, and Amirkhanyan (2009) finds nonprofit contractors were more likely to collaborate with government agencies on performance measurement activities. Government agencies may also be more likely to trust faith-based organizations compared to their secular counterparts because of faith-based organizations’ emphasis on religious values. We hypothesize government agencies will have stronger relationships with nonprofit and faith-based contractors due to the fact government agencies are more likely to trust these contractors.

Hypothesis 4: *A contractor’s status as a non-profit organization is positively associated with relationship strength.*

Hypothesis 5: *A contractor’s status as a faith-based organization is positively associated with relationship strength.*

Contractor Service Quality. Trust results in a relationship when the parties involved have a history of successfully completed transactions (Lambright, Mischen, & Laramee, forthcoming; Lorenz, 1999; Ring & Van de Ven, 1992; Vangen & Huxham, 2003; Van Slyke,

2007). Poor or unremarkable performance may naturally be associated with shorter contracts, but in some markets it may not be possible to impose the ultimate sanction – contract termination – for a variety of reasons including lack of contractor competition, lack of funding for service improvement, or poor performance measurement mechanisms. In cases where contract termination is not an option, one may expect the government to be less likely to develop strong informal ties with contractors who have not met the government’s service delivery goals. On the other hand, government agencies may be interested in maintaining closer relationships with high performers in order to sustain good program outcomes and perhaps to collect information on their best practices for dissemination to other contractors. Hence, we expect there to be a positive relationship between contractor service quality and relationship strength.

Hypothesis 6: *Contractor service quality is positively associated with relationship strength.*

Contractor Size. A final contractor characteristic that may influence the adoption of a more collaborative approach to contract management is organizational size. We expect that *contractor size* will be negatively related to relationship strength. Organizations often collaborate in order to obtain the resources needed to achieve their goals (Bryson, Crosby, & Stone, 2006; Fleishman, 2009; Whetten & Leung, 1979). Smaller contractors are likely to be less financially secure and more reliant on their contracts. Therefore, they can be expected to work harder on building relationships with government agencies.

Hypothesis 7: *Contractor size is negatively associated with relationship strength.*

Financial Autonomy from the Contracting Government Agency. In addition to contract characteristics and contractor traits, a contractor’s external ties to their environment are likely to impact the development of collaborative contractual arrangements. Like smaller organizations, organizations that receive substantial funding from other government sources are likely to be less

dependent on their contract as a critical revenue source and may be willing to invest less time and effort into their relationships with the government in order to ensure they are successful. As a result, we expect that these types of organizations will have weaker relationships with the contracting government agency. Consistent with this prediction, Amirkhanyan (2009) finds that contractors that were less financially dependent on their contract were less likely to collaborate with government agencies in the process of performance monitoring.

Hypothesis 8: *Financial autonomy from the contracting government agency is negatively associated with relationship strength.*

Affiliation with a Larger Organization. On the other hand, we expect contractors that are affiliated with larger organizations to have stronger relationships with the government. The government agency may be more likely to presume that the contractors affiliated with larger organizations have the capacity to deliver high quality services because of the benefits they receive from economies of scale. As a result of this confidence, governments may be more willing to make investments in their relationships with these contractors. In addition, contractors that already have ties with a parent institution may have more institutional capacity to be collaborative and hence may be able to work more effectively in partnership with the contracting public agency.

Hypothesis 9: *Contractor affiliation with a larger organization is positively associated with relationship strength.*

Influence of Client Groups. Finally, the influence of client groups may impact the development of strong relationships between the contractor and government. Influential client groups can serve as another mechanism for monitoring the services that contractors deliver. Brown and Potoski (2006) find that the government may adjust the extent of its monitoring in cases when the contractor is also monitored and evaluated by a third-party. Client groups can

pressure contractors to improve service quality and be responsive to the client needs. In such conditions, the government may seek to minimize its transaction costs and invest less time and energy in building strong relationships with the contractors that are already subjected to some external oversight.

Hypothesis 10: *The influence of client groups is negatively associated with relationship strength.*

METHODS

Data. This study uses data from the Partnership Impact Research Project³. This is a three-year survey exploring early education partnerships in the state of Ohio. For our analysis we have used three of the six data sets comprising the Partnership Impact Research Project.

They are as follows:

1. ***The Child Care Center Data Set***, which contains information on nonprofit and forprofit child care centers. The data is provided by the center directors and focuses on the population served, services, funding sources, and other major characteristics of contractors. Some child care centers included in this data set have a partnership with a local Head Start in Ohio, while others do not.
2. ***The Child Care Center Partnership Data Set*** contains information on the child care centers' contracts with a local Head Start agency in Ohio and focuses on various aspects of these contractual relationships. This partnership-level data set has information on a sub-sample of the centers included in the Child Care Center Data Set mentioned above.
3. ***The Parent Data Set*** includes information collected from the parents on the services their children have received and satisfaction with the service quality. This is parent level data, and thus it includes responses of several parents whose children attended the centers included in the Child Care Center Data Set.

Each file represents pooled time-series data with up to three survey records for each child care center (or each partnership). First, the Child Care Center Data and the Partnership Data were merged using center ID numbers and wave indicators. At this point, the centers from the Child Care Center Data that were not involved in a Head Start contract were dropped from our analysis.

³ The formal title of the data set is ICPSR04298-v1, 2001-2004.

Next, we modified the parent level data set listed above as #3. This data file was used to provide information on parents' assessments of center quality. Thus, using the Parent Data, we computed an average parent quality indicator for each center. Next, we merged this center-level information with the first two data sets. The data we used in our analysis contained 163 records, each describing a nonprofit or a for-profit child care center and its partnership with a local Head Start agency. Appendices 1 and 2 describe in detail how the dependent and the independent variables are operationalized and measured. Employing the combined data set, we tested the proposed model with ordinary least squares regression to estimate the effects of individual independent variables on *relationship strength* holding all the other independent and control variables constant.

Dependent Variables. We created a set of variables measuring different aspects of relationship strength between a government agency and a contractor. Specifically, the variable *shared procedures* reflects the existence of procedures – not necessarily formally recorded – which govern the contractual relationship and are acknowledged by both parties. These include the use of various processes to explain the nature of the Head Start program to staff, to prepare staff for their responsibilities, to ensure staff understand Head Start regulations, and to manage finances. This variable is the mean of eight survey items measured on a 5-point Likert scale (see Appendix 1). The variable *goal agreement* reflects contractors' perception on the extent to which both parties' agree on contract goals. This is the mean of responses for four survey items indicated in Appendix 1. Among other things, this variable is intended to represent the extent to which there is a shared philosophy or a vision of the curriculum and educational approaches. The variable *communication quality* – the mean of three survey items listed in Appendix 1 – measures whether or not the child care center directors believe they have good communication

with their public partners. More specifically, this variable reflects the contractors' perception that their voice is heard and that their input will be welcomed by the Head Start agency. Finally, *cooperation in contract implementation* is the mean of five survey items describing cooperative strategies used by the two parties involved in the contract. In particular, it reflects the contractors' perception of being "a full partner" and perceptions of being treated "with respect."

We tested the reliability of the scales for these four variables using Cronbach alphas. The resulting alpha scores range from 0.787 to 0.898, which exceed the minimum acceptable threshold. We further conducted a confirmatory factor analysis of these four variables. The result confirms that they can be combined into a single measure of *relationship strength*.⁴ We created this aggregate measure by calculating the mean of four variables described above.

Independent Variables. The coding procedures for creating all independent variables are explained in Appendix 2. There are two independent variables that represent contract characteristics. The first variable is *contract specificity*. We computed the sum of eight dichotomous survey items to measure whether there is a written legal agreement and other formally recorded documents detailing contract implementation procedures. We measure *relationship length* as the number of years that a child care center has engaged in a partnership with a particular local Head Start Agency in Ohio.

We operationalize contractor traits using several variables. We measure *internal management capacity* using the sum of seven survey items. This variable is based on the number of times someone in a managerial position performed various administrative functions such as

⁴ We conducted a confirmatory factor analysis to confirm the measurement model for *relationship strength* using the principal component analysis method. The results of confirmatory factor analysis with the four measures of the *relationship strength* validate the factor structure. There is only one factor of which the eigenvalue is greater than one. The eigenvalue of this factor is 3.044. The produced factor loadings for the four variables are: "shared procedures" (0.844), "goal agreement" (0.886), "communication quality" (0.881), and "cooperation in contract implementation" (0.878).

“observing teachers in the classroom to assess their practice” and “meeting with teachers to provide feedback regarding their teaching practices in the classroom.” To reflect organizational ownership, we created two dummy variables: the first variable indicates whether the organization is a *nonprofit* rather than a for-profit organization, and the second variable indicates whether the contractor is a *faith-based* rather than a secular organization. Two variables measure organizational size: *average daily enrollment of preschoolers* at a center and a center’s *total annual operating budget*.

As a final contractor trait, we measure *contractor service quality* using three different indicators. Our first measure of child care service quality is based on the following survey question: “How satisfied are you with the overall quality of your center?” There were five possible responses to this question: “very satisfied” (5), “somewhat satisfied” (4), “neither satisfied nor dissatisfied” (3), “not very satisfied” (2), or “not satisfied at all” (1). Respondents – child care center directors – were first asked to provide detailed background information on various aspects of their centers’ performance, and then were asked to share their overall satisfaction with the quality of their center. We also included a measure of child care center quality based on data collected from parents. We created an ordinal variable based on the following question: “In general are you satisfied with the quality of these services you get? (1= “not at all”, 2= “not very”, 3= “somewhat”, 4= “very”).” Then, we computed the average center-level rating using the parent-level data and included this in our center level analysis. In addition, the Partnership Impact Research Project data set includes data on the number of violations documented during the last state licensing inspection conducted by government officers. This measure is a negative measure of service quality. In our sample, the values of this interval-ratio variable range between 0 and 49.

A contractor's external ties to the environment are measured in three different ways. We measure *financial autonomy* by the total number of funding sources received by an organization. We summed the number of positive responses to the questions regarding whether a contractor receives the funding from nine different sources (federal Head Start, state Head Start, state preschool, subsidies, parent tuition/fees, United Way funding, U.S. Department of Agriculture's Child and Adult Care Food Program, private foundation funding, and other funding). Having a greater number of funding sources indicates that the contractor is more autonomous from the local Head Start agency. In addition, we created a dichotomous variable referred to as *affiliation with a larger agency* to indicate whether a center is part of a larger agency or an umbrella organization. Finally, we measure the *influence of client groups* using a dummy variable to indicate whether a child care center provides opportunities for parents to participate in an advisory group.

Besides the independent variables, we include seven control variables in our model. To measure human resource capacity at each center, we use the *proportion of teachers with a Bachelor's and Master's degree*. We also measure the supply of teachers in a child care center using the *student-teacher ratio* reported by each center. Furthermore, we include the percent of each center's preschool teachers receiving training annually. To control the effect of geographical location, we include a dichotomous variable indicating whether a contractor is located in a rural area or a urban/suburban area. In addition, we control for the characteristics of a center's client population by including the *percent of white* preschoolers in our regression analysis. Finally, since the data set was collected from three survey waves, we added two dummy variables indicating each survey wave.

Limitations. There are some limitations with this study’s data and research design. First, the data describing the relationships between the government agencies and the contractors, our dependent variables, were provided by the contractors rather than by the government agency or both parties. Thus, these variables reflect the contractors’ perceptions and are, in that sense, subjective. Such data may, nonetheless, be informative and valid particularly because the contractors may be less likely than the government to misrepresent the degree of collaboration in the contracting process. Another limitation of this study is that the sample size for our analysis is 163 child care centers. As a result, our models may have low statistical power. Finally, our data is based on child care partnerships in a single state. This limits the generalizability of this study because of the multiple factors that vary across states and are not captured in this analysis such as cost of living differences and child care policies.⁵ Furthermore, we focus on a single service area with outcomes that are difficult to measure. The findings of this analysis will therefore be more applicable to similar social services such as elderly care where customers are typically unable to judge quality and less generalizable to other types of services. Replications of this study in other locations and service areas can help verify our findings.

FINDINGS

Table 1 reports descriptive statistics for our variables. We measure the strength of relationships using five measures as explained in Appendix 1. The mean scores of the four sub-dimensions of relationship strength range between 3.187 and 3.878, suggesting that childcare center directors have relatively positive perceptions of their relationships with local Head Start agencies. In particular, *goal agreement* received the highest scores and *shared procedures*

⁵ Nonetheless, focusing on one state does help us keep constant the state-level variation in such policies, which may reduce concerns regarding spuriousness.

received the lowest. *Communication quality* and *cooperation in contract implementation* show similar levels of strength: their mean scores are 3.789 and 3.815, respectively, which is considerably higher than the mean score of *shared procedures*, 3.187. This result may suggest that the contractors and the government agencies often agree on the vision, goals, and philosophy of child care provision and have the capacity to effectively communicate and promote partnership-oriented behavior. However, developing specific mutually understood procedures to ensure that everyone is involved in the contract management seems less prevalent.

<Table 1 about here>

Applying the five different measures of the dependent variable, we tested the proposed hypotheses. The first model utilizes our aggregate measure of *relationship strength* as the dependent variable, while the remaining four models investigate the relative impact of independent variables on the four specific dimensions of relationship strength: *goal agreement*, *communication quality*, *cooperation in contract implementation*, and *shared procedures*. Table 2 shows OLS estimation results.

Providing support for Hypothesis 1, contract specificity is significant in all five regression models. Contrary to the arguments by some scholars, the degree of formalization in contract implementation does not hinder the process of forming a good relationship between the contractor and the government agency. Specification of contract parameters occurs in tandem with the development of shared procedures, establishment of common goals, effective communication, and cooperation in contract implementation. Thus, well-specified contracts and

perhaps the efforts devoted to developing them contribute to advancing the relationships between the contracting parties.⁶

Two of the three environmental variables also play an important role in explaining variation in the dependent variables. Consistent with Hypothesis 8, *financial autonomy* is negatively associated with relationship strength. This result confirms our hypothesis that contractors with diversified funding streams have fewer incentives to invest their resources in developing strong relationships with government agencies. However, these results should be interpreted cautiously. We measure financial autonomy using the number of funding streams a contractor receives. Perhaps, a better measure of the concept, not available for this research, would involve assessing the ratio of the contractor's budget coming from Head Start funding compared to the contractor's total budget. The positive and significant association between *affiliation with a larger organization* and relationship strength suggests the importance of contractors' external ties in contract implementation and confirms Hypothesis 9. Contractors affiliated with larger parent organizations develop stronger relationships with government agencies. In particular, they establish more shared procedures, reach greater agreement on contract goals, and have contracts that involve greater cooperation in their implementation. On the other hand, we do not find support for Hypothesis 10 as our third environmental variable, the presence of parent advisory groups, is not statistically significant.

Three contractor traits have significant associations with either our aggregate measure of relationship strength or some of its sub-measures. While a contractor's *internal management capacity* does not have a significant effect on the overall strength of the contracting relationships ,

⁶ As a sensitivity analysis, we ran a model exploring whether a reciprocal relationship exists between contract specification and relationship strength. The results of this sensitivity analysis are generally consistent with the OLS results presented in this paper.

it has a positive effect on the development of shared procedures. This result provides partial support for Hypothesis 3 and suggests that contractors whose leaders are more skilled and active in internal managerial tasks are also more effective in detailing the procedures to manage the contingencies of contract implementation in cooperation with their public counterparts.

Contrary to Hypothesis 4 and findings in previous studies, nonprofit child care centers are less likely than their for-profit counterparts to develop strong relationships with local Head Start agencies. The negative coefficients of the nonprofit ownership variable in four of our five models imply that nonprofit status actually reduces relationship strength when relationship strength is measured by our aggregate measure, shared procedures, goal agreement, and cooperation in contract implementation.

On the other hand, we find partial support for Hypothesis 6. *Service quality*, as evaluated by parents whose children attend the child care centers, has a positive effect on every aspect of relationship strength identified in this study. A one level increase in the average parent satisfaction with the child care center enhances the center's overall relationship with the local Head Start agency by 0.725 units. In addition, another service quality measure based on data provided by child care center directors positively affects all five aspects of relationship strength. Thus, collaboration in contracting increases as client and contractor satisfaction grows. However, we fail to find support for an association between the number of licensing violations committed by the child care center and relationship strength. It appears that trust between the contractor and government agency is sensitive to service recipients' satisfaction with the service as well as the contractor's own confidence with the service quality, but is not affected by a more objective service quality measure, the frequency of licensing violations.⁷

⁷ Contractors with strong relationships with the government may also be more likely to deliver high quality services. Having a close relationship with the government can encourage service providers to act as stewards and take

Inconsistent with Hypothesis 2, the association between *relationship length* and relationship strength is insignificant. This finding indicates that a longer relationship does not necessarily guarantee a stronger partnership between the contractor and the government agency. On the other hand, this null finding may be caused by the fact that the duration of relationships in our sample is not long enough to make a difference in relationship strength. Although the length of relationship ranges from 0.06 year to 9.08 years, one half of the sampled relationships are shorter than 3.05 years. We also do not find support for Hypothesis 5 or 7: neither faith-based ownership status nor contractor size is significantly related to any of our measures of relationship strength.

In addition, most of the control variables included in the regression analysis do not have a significant association with relationship strength. One exception is teacher quality. The quality of teachers measured by the percentage of the teachers who hold BA or MA degrees is negatively associated with some of our relationship strength measures: aggregate relationship strength, goal agreement, and communication quality. We also find that the percentage of teachers receiving annual training has a positive association with cooperation in contract implementation.

DISCUSSION

The objective of this paper is to understand the factors influencing the development of collaborative contracting relationships. We use a broad conceptualization of collaborative or “relational” aspects of contract implementation. It includes joint efforts and practices to ensure that the contractor shares the same vision and philosophy as the government, has a voice and

leadership roles when problems arise. This may result in problems being resolved faster and with more openness, which in turn will positively affect program performance. This suggests that a reciprocal relationship may exist between service quality and relationship strength. We plan to explore this possibility in future analyses.

feels respected in the implementation process, and understands all the expectations, regulations and procedures. The primary finding of this study is that the development of detailed contracts and collaborative contracting arrangements are not negatively related, as many scholars have suggested. Instead, these two processes play a complementary role in contracting relationships. Collaborative contracting arrangements are used in tandem with legal agreements and documents that formally prescribe contractor roles, responsibilities, procedures, and actions. Thus, what has been viewed as a dichotomy may, in fact, represent two important and parallel practices in contract management.

These results challenge the assertions by some scholars that strong contracting relationships are associated with less formal specification and reduced transaction costs (Gulati, 1995; Ring & Van de Ven, 1994; Van Slyke, 2009). We find that as contract specification increases, contracting relationships may actually become stronger. If this is the case, there may be greater transaction costs associated with strong relationships rather than fewer costs. Our results shed light on the process of developing strong inter-organizational relationships: they suggest that contract specification may serve as a necessary foundation upon which the actual relationships are built and improved. Hence, while contract specification requires capacity and effort, this investment appears to have a positive effect on the more intangible aspects of relationships: understanding, shared values, and respect. These intangible aspects do not develop on their own, but instead can result from meticulous and detailed contract refinement.

Another important finding of our study is that parents' and child care center directors' satisfaction with service quality predicts stronger government-contractor relationships. This suggests that contractors that are effective in their core activities may establish closer partnerships with their monitoring agency. Thus, past organizational performance may be an

important clue for public officials involved in the contractor selection process.⁸ On the other hand, we do not find a significant association between our third measure of service quality, the frequency of licensing violations, and any of our relationship strength measures. These null findings may be because the number of licensing violations only measures child care centers' compliance with health and safety regulations. As is frequently the case with objective measures of performance, the number of licensing violations is not a comprehensive measure and does not capture important dimensions of child care center performance (Andrews, Boyne, & Walker, 2006).

In addition, we find that a contractor's internal management capacity impacts the development of shared procedures in contracting relationships. Some child care center directors in the sample were active in observing their teachers in the classroom, providing feedback, discussing how the curriculum satisfies the developmental needs of children, and reviewing program data to make improvements and tracking the attainment of organizational objectives. Regression analysis suggests that these directors were also more likely to work on building strong relationships with the government agencies. Specifically, they were more likely to work on developing procedures to ensure that staff has a good understanding of Head Start, work together on resolving the conflicts, and involving staff in all phases of the partnerships. Our findings suggest that organizational managers working effectively within their organizations may also tend to work effectively across organizational boundaries.

An unexpected finding of this study suggests that nonprofit organizations are in fact less likely to develop collaborative relationships with their agencies. Several explanations can be proposed for this finding. First, public managers may be conscious of the many possible

⁸ Additional analysis will be conducted to verify that this relationship is not recursive.

problems associated with nonprofit service provision and hence opt for a more “arms-length” relationship. While the virtues of nonprofit organizations are widely recognized, some researchers point out their many pitfalls. In the absence of financial incentives to guide organizational leadership, nonprofit organization may be poorly managed (Hansmann ,1986; Prager, 1994; Rose-Ackerman, 1996) and prone to financially irresponsible behavior. Numerous accountability pressures can also result in dysfunctional managerial behavior (Johnston & Romzek, 1999). Furthermore, despite the assumptions of the socially responsible nature of nonprofit organizations, they may prioritize different service delivery norms than public organizations: while governments may emphasize equal access to services, nonprofits may prioritize responsiveness to more limited community groups (Smith & Lipsky, 1993, Amirkhanyan, Kim, & Lambright, 2008). Trust may be undermined by these considerations and reduce the likelihood of building a collaborative relationship.

Organizational autonomy has been viewed as a key characteristic expected to affect many aspects of organizational well-being, including overall performance (Rainey & Steinbauer 1999). In our study, organizations that are part of a larger institution appear to communicate and cooperate more and better than free-standing organizations. These findings may be of particular interest for practitioners. Contractors that are a part of larger umbrella organizations may receive management support and guidance enabling them to internalize the government’s expectations and to build inter-organizational ties based on trust and respect. On the other hand, independent and, presumably, younger organizations may need additional support to achieve the same level of collaboration. Thus, public managers should plan on spending more time and effort building a partnership with an organization that does not receive management support or in other ways benefit from the economies of scale afforded by a relationship with a larger umbrella

organization. Future analysis should determine the specific strategies and conditions that enable affiliated organizations to be more effective partners than their freestanding counterparts.

Furthermore, our results suggest organizations that are not heavily dependent on a particular contract may have fewer incentives to collaborate. As a result, public managers may need to pursue more aggressive contract monitoring techniques to ensure that the contract is perceived as a priority by contractors that are more financially autonomous.

This study provides insights into the organizational and environmental factors that strengthen relationships between governments and their contractors. Contract management and implementation, however, is a complex process. Aside from the quality of contractual relationships, numerous factors may influence programmatic outcomes. Such factors include the contractors' service delivery and management capacity, sufficient resources, characteristics of the client population, market conditions, quality of performance measurement procedures and data, and many others. The ultimate task – pursued by the authors of this research in a follow-up study – is therefore to disentangle the effect of relationship design and other factors on organizational performance. If relationships indeed matter, the findings of this study may provide practitioners with valuable information on the factors that facilitate their development.

Table 1. Descriptive Statistics

Variables	N	Mean	Std. Dev.	Min.	Max.
<u>Dependent Variables</u>					
<i>Relationship Strength</i>	158	3.667	0.832	1.4	5
<i>Shared Procedures</i>	158	3.187	0.946	1	5
<i>Goal Agreement</i>	158	3.878	0.919	1	5
<i>Communication Quality</i>	158	3.789	0.970	1	5
<i>Cooperation in Contract Implementation</i>	158	3.815	0.981	1.4	5
<u>Independent Variables</u>					
Contract Characteristics					
<i>Contract Specificity</i>	163	6.399	1.648	0	8
<i>Relationship Length</i>	163	3.051	1.660	0.063	9.087
Contractor Traits					
<i>Internal Management Capacity</i>	163	29.808	31.744	0	185
<i>Nonprofit</i>	163	0.466	0.500	0	1
<i>Faith-based</i>	163	0.172	0.378	0	1
Contractor Service Quality					
- Director rated satisfaction	163	4.239	0.852	1	5
- Parent rated quality	125	3.418	0.317	2.429	3.944
- Number of violations	131	8.298	8.213	0	49
Contractor Size					
- Number of students	163	32.938	18.816	6	135
- Contractor's budget (natural log)	163	12.704	0.738	8.006	15.654
Environmental Conditions					
<i>Financial Autonomy from the Contracting Agency</i>	163	4.503	1.288	1	8
<i>Affiliation with a Larger Organization</i>	163	0.436	0.497	0	1
<i>Influence of Client Groups</i>	163	0.583	0.495	0	1
<u>Control Variables</u>					
<i>Human Resource Capacity</i>					
Teacher quality	163	17.81	23.95	0	100
Teacher training	163	97.566	12.624	2	100
Student-teacher ratio	163	9.564	2.574	2	15
<i>Contractor in Rural Area</i>	163	0.172	0.378	0	1
<i>% of White Preschoolers</i>	163	53.036	36.632	0	100
<i>Waive 2</i>	163	0.288	0.454	0	1
<i>Waive 3</i>	163	0.233	0.424	0	1

Table 2. Regression Analysis Results for Relationship Strength

Variables	<i>Relationship Strength</i>		<i>Shared Procedures</i>		<i>Goal Agreement</i>		<i>Communication Quality</i>		<i>Cooperation in Contract Implementation</i>	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
<u>Contract Characteristics</u>										
<i>Contract Specificity</i>	0.194***	0.051	0.186**	0.060	0.191**	0.058	0.234***	0.064	0.163*	0.063
<i>Relationship Length</i>	0.095	0.065	0.136	0.076	0.001	0.073	0.100	0.080	0.148	0.080
<u>Contractor Traits</u>										
<i>Internal Management Capacity</i>	0.002	0.002	0.006*	0.003	-0.000	0.002	0.002	0.003	0.002	0.003
<i>Nonprofit</i>	-0.851**	0.310	-1.058**	0.365	-1.107**	0.350	-0.191	0.384	-1.047**	0.383
<i>Faith-based</i>	0.200	0.351	0.102	0.413	0.652	0.397	-0.423	0.434	0.471	0.434
<i>Contractor Service Quality</i>										
Director rated satisfaction	0.326*	0.124	0.296*	0.147	0.294*	0.141	0.380*	0.154	0.334*	0.154
Parent rated quality	0.725***	0.202	0.798**	0.239	0.786**	0.229	0.690**	0.251	0.623*	0.250
Number of violation	0.006	0.011	0.007	0.012	0.002	0.019	0.007	0.013	0.006	0.013
<i>Contractor Size</i>										
Number of students	-0.001	0.005	0.002	0.006	-0.000	0.006	-0.001	0.007	-0.004	0.007
Contractor's budget	0.019	0.103	-0.008	0.121	0.018	0.117	-0.008	0.128	0.072	0.127
<u>Environmental Conditions</u>										
<i>Financial Autonomy</i>	-0.317***	0.076	-0.291**	0.090	-0.255**	0.086	-0.343***	0.095	-0.378***	0.094
<i>Organizational Affiliation</i>	0.811**	0.274	0.812*	0.323	1.201***	0.310	0.262	0.339	0.969**	0.339
<i>Influence of Client Groups</i>	-0.222	0.183	0.028	0.216	-0.193	0.207	-0.272	0.227	-0.451	0.226
<u>Control Variables</u>										
<i>Human Resource Capacity</i>										
Teacher quality	-0.009**	0.004	-0.007	0.004	-0.012**	0.004	-0.011*	0.004	-0.008	0.004
Teacher training	0.049	0.028	0.010	0.034	0.064	0.032	0.044	0.035	0.079*	0.035
Student-teacher ratio	-0.034	0.034	-0.036	0.040	-0.037	0.038	-0.042	0.042	-0.019	0.042
<i>Contractor in Rural Area</i>	0.301	0.273	0.531	0.322	0.445	0.309	0.198	0.339	0.032	0.338
<i>% of White Preschoolers</i>	0.005	0.003	0.004	0.004	0.004	0.004	0.008	0.004	0.005	0.004
Wave 2	-0.031	0.199	0.002	0.235	0.052	0.225	-0.223	0.247	0.048	0.246
Wave 3	-0.429	0.247	-0.516	0.291	-0.169	0.279	-0.738*	0.306	-0.292	0.305
Intercept	-4.936	3.332	-1.735	3.929	-6.184	3.768	-3.970	4.126	-7.853	4.120
<i>N</i>	96		96		96		96		96	
<i>R2</i>	0.493		0.436		0.442		0.434		0.437	
<i>Adjusted R2</i>	0.358		0.286		0.294		0.283		0.286	
<i>F-value</i>	3.64***		2.90***		2.98***		2.87***		2.90***	

*P<0.05, **P<0.01, ***P<0.001

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Appendix 1. Survey Items for Dependent Variables

Variable	Items Used to Create Each Variable
<i>Aggregate Relationship Strength</i>	Mean of four variables created below: “shared procedures,” “goal agreement,” “communication quality,” and “cooperation in contract implementation”
<i>Shared Procedures</i> Cronbach alpha=0.898	Mean of the following survey items measured on a 5 point Likert scale (1=“not at all”; 2=“not very”; 3=“neither satisfied nor dissatisfied”; 4=“somewhat”; 5=“very much so”) The partnership between my child care center and Head Start has... <ol style="list-style-type: none"> 1. Process for ensuring child care staff have a good understanding of Head Start 2. Process to ensure staff understand Head Start regulations 3. Procedures for resolving conflicts or differences across your Programs 4. Ensured that child care staff are prepared for their new responsibilities 5. Ensured that all staff are involved in all phases of partnerships 6. Procedures to keep children in the program if their parents lose eligibility for child care subsidy 7. Procedures to keep children in the program if their parents lose eligibility for Head Start services Procedures to manage finances as part of the partnership
<i>Goal Agreement</i> Cronbach alpha=0.874	Mean of the following survey items measured on a 5 point Likert scale: <ol style="list-style-type: none"> 1. The partnership between my child care center and Head Start has a shared partnership philosophy and vision 2. The partnership between my child care center and Head Start has agreement about curriculum/educational approach 3. The partnership between my child care center and Head Start has agreements or plans that help guide the partnership work 4. My center and HS have similar goals for our work together
<i>Communication Quality</i> Cronbach alpha=0.787	Mean of the following survey items measured on a 5 point Likert scale: <ol style="list-style-type: none"> 1. The partnership between my child care center and Head Start has good communication within and across your organizations 2. I feel my voice is heard in the Partnership 3. I feel I can pick up the phone and call the HS program
<i>Cooperation in Contract Implementation</i> Cronbach alpha=0.825	Mean of the following survey items measured on a 5 point Likert scale: <ol style="list-style-type: none"> 1. Individuals involved in the partnership between my child care center and Head Start demonstrate mutual respect for one another 2. I feel my program is a full partner with the HS program 3. I feel the HS program respects my Program 4. I feel HS does not really view my center as a partner (reverse coding) 5. How would you characterize your partnership with Head Start on a scale of 1 to 5, where 1=just forming and 5=fully established

Appendix 2. Survey Items for Independent Variables

Variable	Items Used to Create Each Variable
<p>Contract Characteristics</p> <p><i>Contract Specificity</i></p> <p><i>Relationship length</i></p>	<p>Sum of the following survey items measured as dichotomous nominal variables:</p> <ol style="list-style-type: none"> 1. Currently do you have a written legal agreement or a contract with Head Start? 2. Do you regularly update the document? 3. Does this agreement specify the maximum number of children who can receive Head Start enhanced services at your center? 4. In your partnership with Head Start, do you have a written document that describes roles and responsibilities of Head Start and of people at your center in providing services? 5. Do you have any documents that describe the partnership's goals and specific actions that the partnership plans to take to achieve the goals? 6. In your partnership, do you have any written documents that state what your program needs to do to meet Head Start Program Performance Standards? 7. Do you have documents describing procedures for communicating with your Head Start partner? 8. Do you have a well-defined process for recruiting and enrolling children into your center for Head Start enhanced services? <p>Number of years that the center has engaged in the partnership</p>
<p>Contractor Traits</p> <p><i>Management capacity</i></p> <p><i>Nonprofit contractor</i></p> <p><i>Faith-based contractor</i></p> <p><i>Contractor Service Quality</i></p> <p>Director's satisfaction</p>	<p>Sum of seven dichotomous survey items:</p> <p>Please indicate the average number of times someone in an administrative role at your center, such as an education coordinator, administrator, or senior teacher, engages in the following activities during a typical month.</p> <ol style="list-style-type: none"> 1. Observes teachers in the classroom to assess their practice. 2. Meets with teachers to provide feedback regarding their teaching practices in the classroom. 3. Meets with teachers to discuss how to link the curriculum to children's developmental needs. 4. Discusses with teachers strategies to ensure teaching practice is developmentally appropriate. 5. Discusses with teachers strategies to ensure a literacy-rich curriculum. 6. Reviews teachers' teaching. 7. Reviews program data to see how the center is doing compared to specific goals or objectives. <p>Is your center a nonprofit or for-profit organization? (coded as 1 for nonprofit organizations and 0 for forprofit organizations)</p> <p>Is your center a faith-based organization? (coded as 1 for positive answers)</p> <p>"How satisfied are you with the overall quality of your center?" 1="not satisfied at all", 2="not very satisfied", 3="neither satisfied nor dissatisfied", 4="somewhat satisfied", 5="very satisfied"</p>

<p>Parent rated satisfaction</p> <p>Number of violations</p> <p>Contractor Size</p> <p>Number of students</p> <p>Contractor's budget</p>	<p>Mean score of one center's parents' responses to the following question, "In general, are you satisfied with the quality of these services you get?" (1= "not at all", 2= "not very", 3=" somewhat", 4="very")</p> <p>Number of violations documented during state licensing inspections</p> <p>What is the average daily enrollment of preschoolers? (numeric)</p> <p>What is your child care center's current total annual operating budget? (numeric)</p>
<p>Environmental Conditions</p> <p><i>Financial Autonomy from the Contracting Agency</i></p> <p><i>Affiliation with a Larger Organization</i></p> <p><i>Influence of Client Groups</i></p>	<p>Total number of funding streams</p> <p>Does your center or agency access the following funding sources to provide services to preschoolers and their families at your child care center? (1="yes", 0="no")</p> <ol style="list-style-type: none"> 1. Federal Head Start 2. State Head Start 3. State Preschool 4. Subsidies 5. Parent tuition/fees 6. United Way funding 7. USDA CACFP 8. Private foundation funding 9. Other funding <p>Is your center part of a larger agency or umbrella organization? (coded as 1 for positive answers)</p> <p>Does your center provide opportunities for parents to participate on an advisory group? (coded as 1 for positive answers)</p>
<p>Control variables</p> <p><i>Human Resource Capacity</i></p> <p>Teacher quality</p> <p>Teacher training</p> <p>Student-teacher ratio</p> <p><i>Contractor in the rural area</i></p> <p><i>% of White Preschoolers</i></p> <p>Wave 2</p> <p>Wave 3</p>	<p>Percentage of teachers with a Bachelor's degree of a Master's degree</p> <p>Percentage of teachers receiving training annually</p> <p>What is the ratio of preschoolers to teachers or teaching aides at your center?</p> <p>Survey item "urbanicity" (1="urban", 2="suburban", 3="small town", 4="rural") (coded as 1 for small towns and rural areas and 0 for other responses)</p> <p>Percentage of white preschoolers served by a center</p> <p>survey wave 2 (0="no", 1="yes")</p> <p>survey wave 3 (0="no", 1="yes")</p>