

Public-Private Partnerships and Cooperative Agreements in Municipal Service Delivery

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Abstract: This study uses quantitative and qualitative survey data on the use of public-private partnership in provision and production of public services by municipalities in predominantly rural New Hampshire (USA). Descriptive analysis suggests that town officials are less satisfied with the quality of privatized services, suggesting that privatization involves some tradeoff between costs and quality. These results differ from the experiences of large metropolitan areas and suggest that conclusions of previous research do not necessarily generalize to the challenges faced by small rural communities. Statistical analysis confirms that available fiscal health, geography, and voting patterns are linked to privatization decisions.

Keywords: privatization, cooperative agreements, public services

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The research examining public-private partnerships has blossomed over the past 20 years from a collection of philosophical essays to a comprehensive collection of rigorous empirical analysis and focused case studies. As noted by Boyne (1998) the literature has also become richly interdisciplinary. However, despite the volume of the literature smaller and particularly rural local governments have tended to be overlooked (Deller, 1998; Joassart-Marcelli & Musso, 2005). This study is aimed at building on the modest number of studies focused on small and rural communities by looking at public-private partnerships in the United States with a focus on municipalities in the state of New Hampshire. Building on the earlier survey work of Johnson and Walzer (1996) in Illinois and Deller, Hinds, & Hinmam (2001) in Wisconsin we survey town governments in New Hampshire to identify patterns of partnership and levels of satisfaction with those partnerships.

The current interest in public-private partnerships within public administration is widely referred to as the New Public Management (NPM) philosophy and management approach (Hood, 1995a, 1995b; Kettl, 1997; Terry, 2005). The logic behind NPM is simple and straightforward: there is little if any difference between the public and private sectors in terms of the management of resources. In the line of thinking as advanced by Osborne and Gaebler (1992), government managers need to be more entrepreneurial in their approach to service production. While the provisionary decisions of which services to provide and how to pay for them remain within the political realm of elected officials, production decisions are more technical and more in line with the functioning of private businesses. As such, public administration can benefit from studying business concepts of customer service, total quality management, and outsourcing to keep costs low (Lyons & Lowery, 1989). It is the outsourcing decisions in the form of public-private partnerships that are the focus of this study.

The notion of outsourcing the production of public services is the outgrowth of a larger philosophical debate that has had global ramifications (Farazman, 1999). Often referred to as the "Washington Consensus," the "New Political Economy," and "New Economic Model" the government's sole responsibility is to establish efficient institutions for the provision and production of key public services and the enforcement of property rights and contracts. The traditional model of public employees working through various departments is only one institutional model. A central tenet of the larger Washington Consensus debate and the more narrowly focused New Public Management is that "big government" is deadweight to the economy pulling resources away from more productive uses in the private sector (Sindzingre, 2004).

This "Leviathan" view of government can take the form of Niskanen's Law, Tullock's Law, or Baumol's Law among others. Niskanen's Law maintains that government bureaucrats are focused on maximizing their own personal objectives of greater authority, more personnel under their control, and larger budgets, necessitating larger and inefficient government. Tullock's

Law is a variation of Niskanen's Law and maintains that the lack of competitive market forces introduces bureaucratic waste into the public arena. Taken together bureaucrats have incentives to inflate their budgets and not spend their budgets wisely.

Baumol's Law argues that since the public sector lacks profit motivations there is little incentive for government to invest in research and development thus innovation within the public sector lags behind the private sector. As a result, there is little or no growth in labor productivity in the public sector, which in turn claims a disproportionate share of resources as the demand for public services expands. Collectively, these "laws" suggest that outsourcing the production of public services in the form of public-private partnerships may not only be a sound management decision but also a sound economic growth decision.

One popular framework used as a way of thinking about the problem follows from the public choice school of thought (Ostrom, Tiebout, & Warren 1961). The basic tenets follow a Jeffersonian philosophy of government and describe a network of smaller governments that are more responsive to citizen needs. The romanticized notion of the New England town meeting, where direct democracy rules, is at the heart of much of the public choice school of thinking. Leviathan governments, however, are driven not by the demands of the citizenry but by the political and personal goals of public officials. Because government has a monopoly on the provision and production of public services local officials exert monopoly powers. From a philosophical perspective even representative democracies lead to bloated and inefficient government because of the monopoly powers handed to local officials. Through pursuing public-private partnerships, local officials are placed in a position where competitive market forces impose market discipline.

Unfortunately, based on the authors' experience of working with New England towns the idealized Jeffersonian notion of direct democracy through town meetings seldom works in practice. For example, the vast majority of energy expended at town meetings tends to be on small ticket items, with larger items deferred to the elected officials and administrations or tied up in school appropriations with limited opportunities for budget revision. In addition, from a practical perspective, these town meetings work best in only the smallest of communities. As the size of the community increases the effectiveness of these romanticized meetings rapidly decreases—direct democracy is very messy in practice.

The aggressive adoption of New Public Management (NPM) philosophies and management approaches has led to a relatively new line of thinking which centers on what Terry (2005) refers to as the "hollowing of the state." As local governments move aggressively towards relying on public-private partnerships traditional public institutions are radically restructured. Rather than managing personnel or organizing departments, public administrators are reduced to monitoring contracts. Skeptics of public-private partnerships note

that poor contract structure is a problem (Bloomfield, 2006). Indeed, much of the current work in New Public Management has tended to focus on methods of developing, monitoring and enforcing contracts (Brown & Potoski, 2003; Rornzek, & Johnston 2005). Because of political pressures to form public-private partnerships public administrators increasingly find themselves administering contracts under less than ideal conditions (Brown, Potoski, & Van Slyke 2006).

The movement to such partnerships has been so strong in many areas that some are concerned that local public institutions are becoming a shadow of their former selves; or there is an irreversible "hollowing of the state." (Terry, 2005; Farazman, 1999). The concern is that as local public institutions are restructured around public-private partnerships the ability to return to traditional arrangements will be very difficult even if the partnerships prove to be disadvantageous.

In the extreme Vickers and Wright (1988) and more recently Farazman (1999) suggest that the Washington Consensus is a radical attempt to raze traditional public institutions. Boin and Hart (2003: 549) assert "old structures must be destroyed before new ones can be implemented." As local institutions are "dismantled" the ability to return to traditional mechanisms for delivery of services is greatly reduced. Thus care must be taken in how aggressively local governments pursue public-private partnerships.

As outlined by Deller (1998) the ability to effectively enact public-private partnerships by smaller and rural local governments is particularly limited. Public-private partnerships require clearly delineated and enforceable contracts between local governments and private service providers. For some services, such as refuse collection and disposal or even road construction and maintenance, the design of contracts is fairly straightforward. Clear engineering standards are present and can be written into contracts and monitored. For other services, however, it is much more difficult to define clear performance measures. The clearest example is police protection. The question of what "outcomes" are expected from the police department must be asked. In theory an effective police department deters crime but how does one measure this in any meaningful way that can be written into an enforceable contract without establishing distorted signals?¹

The difficulty in writing and enforcing contracts has special relevance for this study because it is a particularly serious limitation to public-private partnerships in small towns and rural areas. In a series of studies looking at the managerial capacity of smaller and rural governments, Honadle (1981, 1983, 1985, 2001) finds that many are run by citizen volunteers and a small staff of employees. The municipal clerk may have an associate's degree in accounting and the public works director spends the majority of their time plowing roads and filling potholes, not what the NPM approach would deem management duties. The NPM approach seems to be moving forward without consideration of the ability of smaller and rural governments to adapt. If the concerns expressed by Terry (2005) and Brown, Potoski, and Van Slyke (2006) are correct

and even large units of government have difficulty negotiating, monitoring and enforcing contracts, then the likelihood that smaller and rural local governments lack capacity to fully benefit from public-private partnerships is very high.

Although much of the literature focusing on public-private partnerships has emphasized contracting with for-profit private firms as well as non-profit organizations (e.g., for selected social services such as church run homeless shelters), a third option is forming intergovernmental cooperative agreements. For emergency services most local governments have formal and informal agreements to lend support to each other. While some, such as Agranoff and McGuire (2004) provide an in-depth discussion of collaboration, the ideas of cooperation has not received as broad attention as privatization decisions. In this study we seek to find patterns of all forms of partnerships either with private firms, non-profit organizations and other units of government.

Beyond these introductory comments, the study is composed of four additional sections. We begin with an overview of the current literature on the practice of public-private partnerships with a focus on smaller and rural local governments. We then report the descriptive analysis of our New Hampshire case-study. In the next section we offer a simple predictive model where we seek to better understand the factors behind the "privatization" decision. We close the study with a review of our findings, outline their policy implications and suggest areas for further research pertaining to smaller and rural local governments.

PREVIOUS EMPIRICAL RESEARCH

As noted by Bloomfield (2006), Linder (1999), and Wettenhall (2003) the term public-private partnerships can mean many different things. Despite the widespread use of the term there is really no generally accepted definition. The term can range from contracting with non-profits for the provision of certain social services, to organizing economic development partnerships across multiple jurisdictions, to contracting with for-profit firms for specific services. Some authors prefer the term "contracting out" (Hirsch, 1995a) to describe a wide range of processes that allow a municipality to use competition in the bidding process to drive down costs (Linowes, 1990; Deller, 1998; Williams, 2003). Much of the available empirical literature, however, has tended to focus more narrowly on contracting with for-profit firms and is widely referred to as privatization. In order to consider the broader array of options this study allows consideration of partnerships with other municipalities as well as partnerships with both for-profit and not for profit private organizations.

Most of the empirical research on public-private partnerships tends to focus either on broad cross-sectional survey data or on case studies. Studies

employing cross-sectional data typically draw on the International City and County Management Association surveys (e.g., Ferris, 1986; Ferris & Graddy, 1986; Greene, 1996), or the Census of Governments (e.g., Lopez-de-Silanes, Shleifer, & Vishny, 1997). Such cross-sectional analyses have three central limitations. First, they lack detail in terms of the history of the public-private partnerships. Partnerships, or contracts, that have been in place for years are treated the same as relatively new partnerships. Today's characteristics might be used to explain or predict patterns of decisions that were made years prior. Second, many of these studies assume a dichotomous dependent variable often in the form of a yes/no response. This masks the continuous nature of many public-private partnerships. For example, municipalities may contract for road construction but retain maintenance responsibilities in-house.

Alternatively, state mandated social services remain purely in the public sector but more focused services, such as domestic abuse support services, may be contracted to non-profits. In addition, the form of contracting out may differ. Contracted services might be provided by another municipality or they may be provided by a for-profit firm. Third, and most relevant to our work, is that surveys of municipalities typically exclude municipalities that have less than 10,000 persons, and the Census of Government provides data only at the county level. For example, in New Hampshire only 29 out of 234 towns or cities have populations greater than 10,000, so that 88 percent of governments would be omitted if only these data sources are considered.

To overcome these problems many researchers have turned to case studies. For example, Joassart-Marcelli and Musso (2005) undertake an exhausting study of what they call "make or buy" decisions during the 1980s and 1990s for southern California cities. They conclude that services were more often privatized in cities with more children, fewer elderly residents, more foreign-born residents, and higher levels of poverty. They also find a greater incidence of outsourcing among younger, smaller, suburban cities, those that are governed under the state's general law provisions by a city manager, and those that have a more conservative voting population. Their findings suggest that poorer cities facing high fiscal stress associated with poverty and competitive pressure from surrounding areas were more likely to experiment with some form of contracting. Specifically, these poorer cities were less likely to opt for the privatization of services but instead chose to outsource services to other governments. Wealthier suburban cities privatized a significant number of services, shifting responsibility for provision and production entirely to the private sector.

Despite the strength of this study, it focuses on metropolitan areas and generally ignores smaller, more rural communities. In Argentina, which recently privatized water provision in about 30 percent of the country's municipalities, Galiani et al. (2005) found that the newly privatized water sources produced measurable reductions in child mortality, particularly in poorer areas. However, these results may not be directly generalizable to the rural United States.

Other studies focus primarily on costs. Savas (1982) summarizes a number of studies showing tremendous savings through the contracting with for-profit firms for the production of a number of public services including waste collection, transportation and healthcare in the United States and abroad. But care must be taken with studies that purport to document that contracting out for services necessarily reduces costs (Klitgaard & Treverton, 2003). As noted by Hirsch "...empirical cost estimates are derived from a biased sample that includes costs of firms that have a contract, indeed only because their costs were below in-house production" (1995a: 459). Brown and Potoski (2003) go on to observe that the rush to privatize local government services has resulted in a number of examples where poorly executed contracts resulted in costs actually increasing. Further complicating the picture Bloomfield (2006) observes that the commingling of public and private funds limits the quality of the data available for cost-benefit studies.

Two studies particularly relevant to this research are Johnson and Walzer's (1996) study of Illinois municipalities and Deller, Hinds and Hinmam's (2001) study of Wisconsin municipalities. The survey design used in these prior works serves as the basis for the New Hampshire Municipal Services Survey, used here. In addition, like this work, both of these prior studies provide insights into the specific challenges facing rural communities.

Unfortunately, neither study moved beyond a descriptive analysis. Both found that contracting is widespread. In Illinois, almost every municipality reported contracting for at least one service and in Wisconsin 91 percent of municipalities bid out one or more services. Both studies found that officials tended to be satisfied overall with their contracting agreements, although there were slight differences associated with different forms of provision.

The Wisconsin study offers additional information about contracting with other units of government. It argues that higher rates of partnerships were formed in cases contracts can be easily crafted and monitored, regardless of the type of agency. That study also identifies various municipalities that considered but rejected forming partnerships for certain services, citing such reasons such as insufficient evidence of effectiveness, loss of control, and a lack of firms capable of bidding. Finally, in the case of contracting with private firms, the Wisconsin survey results show that the number of firms is a critical issue: 19 percent of municipalities who engaged in bidding failed to receive a sufficient number of bids.

The New Hampshire Municipal Services Survey

The state of New Hampshire is unique in a number of aspects including its small size, strong municipal government and rural demographics. Additionally, the study period was one of weak economic growth nationally in contrast to other studies which occurred prior to the broad economic downturn that

began in 2000. New Hampshire also represents the New England region where direct democracy through town meetings is held in high regard. Politically the state has had long-term fiscally conservative majorities in both chambers of the state house (a condition which changed radically in the 2006 elections) and has a reputation for small government and somewhat libertarian ideals. Despite the small size of the state in both population and land area, a great diversity of towns exists with a wide variety of predominant industries and access to urban centers. The demographic composition of the state is also changing due to substantial immigration. In the fastest growing state in New England, towns in New Hampshire are not only being required to provide services to more people but also to a culturally changing electorate.

The design of the New Hampshire Municipal Services Survey closely follows previous surveys of Illinois (Johnson & Walzer, 1996) and Wisconsin (Deller, Hinds, & Hinman 2001). The New Hampshire Local Government Center (NHGLC) provided input and a contact list of municipal officials for each of the 234 local town governments in the state, which allowed the survey to be directly targeted at municipal decision makers. The survey was sent out in a series of mailings in the late spring and early summer of 2004, following the Dillman "tailored design method" (Dillman, 2000). Of the 234 towns surveyed, 138 provided usable responses for a response rate of 59 percent. These responding towns represent just over 60 percent of the state population. The responding towns had a mean population of 5,675 and a median of 2,926, both of which correspond closely to state-wide average (5,520 and 2,364, respectively).

The New Hampshire Municipal Services Survey consisted of five sections: services, costs, employees, decision-making process, and information sources. Survey data were merged with census data to get relevant additional information like population, voting patterns, and municipal tax rates. The survey's first section elicited subjective information about the town's current fiscal condition and future fiscal process. In the survey we then asked specific questions about how each of 84 different services is provided and the level of satisfaction (according to a 5 point Likert scale) with the service provision arrangement. Choices over service provision included "municipal provision" (either "entirely" or "in part"), "another government or authority," or "private" (either "for-profit" or "non-profit"). For brevity in this study we focus on a subset of 14 of the 84 services where there were high response rates and where there is a significant diversity of service provision.² These services were selected because they met two criteria: more than 70% of the respondents filled in a response for that particular service (line item) and the forms of provision were diverse enough so that no single method of provision was used by more than 50% of respondents.

The first section of the survey concluded by asking general questions about plans for future outsourcing, the town's role in providing services to other municipalities, experiences with public-private partnerships of nearby municipalities, and experiences with bidding and of contracts. The second

section of the survey asked if outsourcing has yielded cost savings, and the third asked questions about employee relationships and how municipal employees were affected by outsourcing. The fourth section, on decision-making, asked about factors that cause a municipality to consider, adopt or reject public-private partnerships.

Empirical Results

We offer two sets of empirical results: descriptive and analytical. The descriptive results describe the patterns of public-private partnerships and levels of satisfaction. Mean responses, by town size, on general questions about privatization and service provision are provided in Table 1 and information about service provision and satisfaction for the 14 services that are the focus of this study is summarized in Table 2. The analytical work is aimed at identifying the degree that factors like available fiscal health, geography, and voting patterns are jointly linked to privatization decisions as well as levels of satisfaction with current service production arrangements.

Service Production and Satisfaction

Among the 84 possible services included in the survey, slightly more than half (52 percent) are produced entirely by town employees, nine percent are contracted to other government agencies, 17 percent are contracted to private for-profit firms and only four percent are contracted with private non-profit organizations. While outsourcing of services is an important option for New Hampshire town government, even in rural communities, there is significant variation by type of service (Table 2). The most diverse pattern is in solid waste disposal, where no single service delivery mode dominates. Property valuation for the purposes of property tax assessment has the highest level of outsourcing, with 46 percent of responding towns contracting with private for-profit firms.

For protective services, such as police and fire communication or police and fire training, most municipalities in New Hampshire have elected to retain some level of direct involvement in the production of most public services. Even in these cases, outsourcing is an important element in the provision of public services. Outsourcing of public services at the local level is not limited to for-profit firms, as is presumed in much of the available empirical literature. For police and fire communication, which is primarily 911 emergency call centers and dispatch services, nearly half of the responding municipalities partner with other units of government to facilitate organized responses to emergencies across cooperating towns. Nearly all towns in New Hampshire have formal and informal agreements to lend support in cases of emergencies. Emergency medical services tend to be retained "in-house" but about

Table 1. Survey Responses by Municipality Size*

Rate the current fiscal condition of your municipality				
Adequate revenue and able to reduce taxes	19%	16%	11%	15%
Adequate revenue, but not able to expand services	63%	48%	51%	52%
Inadequate revenue, but not reducing services	11%	26%	24%	22%
Inadequate revenue, reducing services somewhat	4%	8%	14%	9%
Inadequate revenue, reducing services significantly	4%	2%	0%	2%
What are the financial prospects of your municipality over the next five years				
Adequate revenue and able to reduce taxes	15%	17%	11%	15%
Adequate revenue, but not able to expand services	62%	45%	50%	50%
Inadequate revenue, but not reducing services	15%	23%	14%	19%
Inadequate revenue, reducing services somewhat	4%	15%	22%	15%
Inadequate revenue, reducing services significantly	4%	0%	3%	2%
In the next five years, will your town:				
Increase privatization	4%	6%	26%	11%
Remain the same	82%	54%	36%	55%
Decrease privatization	0%	4%	0%	2%
Don't Know	14%	35%	38%	32%
Has privatization or contracting resulted in cost savings				
Yes, in all instances	7%	10%	3%	7%
Yes, in some instances	40%	57%	82%	63%
No	53%	33%	15%	30%
Does your municipality compare costs between services provided by a public agency and a private entity (proportion "yes")				
Are municipal contracts with private firms bid competitively? (proportion "yes")	68%	83%	97%	84%
Have a sufficient number of private contractors bid on most municipal services? (proportion "yes")	46%	70%	66%	64%
Does your municipality provide services for other governments by contract? (proportion "yes")	22%	17%	48%	26%
Number of respondents	28	70	40	138

*"Small" (pop. <1000); "Medium" (pop. 1000–5000); "Large" (pop. >5000); Total.

one-in-five New Hampshire towns contract with for-profit firms for ambulatory services.

While private contracts are almost entirely bid competitively in the larger towns this is not always the case in the smaller towns, where up to one-third of the contracts were not competitively bid. The percentage of towns reporting that an insufficient number of bids had been received for most contracts was 44 percent, 30 percent, and 34 percent, respectively, for small, medium, and

Table 2. Percent of Total by Production Type (P) and Satisfaction Level (S) by Production Type

	Municipal employees entirely		Municipal employees in part		Another government or authority		Private for profit		Private nonprofit		Total	
	P	S	P	S	P	S	P	S	P	S	No.	S
Solid Waste Disposal	24%	3.10	22%	2.68	19%	2.88	34%	2.63	1%	4.00	88	2.82
Recycling	43%	2.95	20%	2.67	14%	3.46	23%	2.90	0%		92	2.96
Street Sweeping	47%	3.39	14%	2.64	2%	1.50	36%	2.90	1%	2.00	81	3.05
Parks Landscaping/Maintenance	68%	3.33	14%	2.45	0%		18%	3.00	1%	4.00	80	3.16
Janitorial Services	66%	3.02	11%	2.33	0%		21%	3.00	1%	4.00	80	2.95
Building/Grounds Maintenance	54%	3.43	24%	2.55	1%	4.00	20%	3.00	1%	3.00	85	3.14
Tax Assessing	29%	3.50	25%	2.88	0%	5.00	46%	3.10			104	3.16
Title Record/Map Maintenance	36%	3.30	30%	2.71	5%	2.80	27%	3.08	1%	1.00	92	3.01
Police Training	22%	3.39	45%	3.22	30%	3.36	2%	3.50	0%		82	3.30
Fire Training	22%	3.35	49%	3.24	27%	3.29	3%	3.50	0%		78	3.28
Police Communication	37%	3.33	10%	3.33	44%	2.92	3%	2.67	6%	3.00	90	3.11
Fire Communication	31%	3.56	9%	3.25	49%	2.98	3%	2.67	8%	2.86	88	3.16
Emergency Medical Services	45%	3.72	23%	2.95	13%	3.36	3%	2.33	16%	3.07	87	3.34
Ambulance Service	38%	3.61	4%	2.00	19%	3.26	21%	2.90	17%	3.18	99	3.25
TOTAL	52%	3.29	17%	2.89	9%	2.95	17%	2.87	4%	2.93	4526	3.10

Satisfaction Scale: 1-Not Satisfied 5-Highly Satisfied.

large towns. This provides direct evidence supporting the assertion made by Deller (1998) and others that small and rural towns may lack the critical mass to draw private firms into the competitive process. Small and rural towns that wish to develop public-private partnerships may be limited because of the lack of scale economies.

The data on satisfaction with current service delivery arrangements show that town officials responding to the survey are generally satisfied. Within the set of 14 studied services, there is however, a clear preference for the traditional model of public employees responsible for service production. Contracting with private for-profit firms is consistently linked to the lowest levels of satisfaction (this result was not related to whether respondents experienced cost savings from privatization). This result runs counter to the idea that better service is a key driver for private contracting, but is consistent with the findings of Johnson and Walzer (1996) and Deller et al. (2001). This finding might reflect an inherent bias towards satisfaction with services produced in house due to personal involvement of respondents in these activities and would be consistent with the Leviathan view of government. On the other hand, nearly half of the respondents to the survey are elected officials rather than administrators. In addition, respondents using other governments to provide services still rank other governments and non-profits ahead of for-profit contractors. These results do not support the assumption that increased service quality can be generally associated with private contracting.³

Fiscal Situation

One of the common themes of the public-private partnership literature is the role of fiscal health and the perceived need to do more with less. Indeed, in a follow-up study looking at Illinois counties, Johnson and Walzer (1998) note that the pursuit of public-private partnerships was viewed as a viable long-term strategy for addressing short-term fiscal stress. A snapshot of the self-assessed fiscal health of New Hampshire towns, sorted by town size, is provided in Table 1. Survey respondents were asked to place their town in one of five categories of fiscal health. The most common response for towns of all sizes describes the current situation as adequate revenue but not able to expand services.

Measures of fiscal health correlate with town size: the smallest towns have the most optimistic view of their situation while medium and larger towns described inadequate revenues roughly 20 percent more frequently. This may reflect the reality that larger municipalities, with a larger array of services, have higher expectations to provide certain minimum levels of services. In smaller towns residents perhaps expect less in terms of services and are thus less likely to complain to officials if services are reduced. Respondents gave a slightly more pessimistic view of the next five years.

Although the majority of towns foresaw adequate revenues in the future, more than ten percent anticipated some reductions in future services. Again,

the larger towns indicated the most concerned with fiscal stress and over 20 percent expect to reduce services. When asked the general question if the municipality will increase, decrease or keep the same level of privatization partnerships, there is a clear pattern that larger towns which are expecting to be experiencing higher levels of fiscal stress are more likely to consider expanding their privatization efforts.

The evidence for cost savings associated with privatization is mixed, and varies significantly with town size (Table 1). Surprisingly, approximately 30 percent of all the responding towns, including the majority of small towns, reported that they do not compare costs at all between public and private entities. In the largest towns the vast majority (85 percent) do compare costs between when considering public-private partnerships. Overall, less than 10 percent of all respondents indicated that the adoption of a public-private partnership, again broadly defined, resulted in cost savings in *all* instances, implying that costs did not always decrease with contracting (the majority of respondents felt that contracting saved money in *some* instances).

However, 70 percent noted cost savings in at least some instances, while 30 percent found that privatization did not result in costs savings. Large towns experienced cost savings in some or all instances 85 percent of the time from privatization. This level of cost savings decreases as town size decreases; 67 percent of medium sized towns found that privatization led to cost savings in all or some instances, while only 47 percent of the small-town respondents indicated that privatization or contracting always or sometimes reduced costs. Write-in responses described cost savings like hiring out tasks to avoid major equipment investments or cases where the town did not have enough work for a full time specialist, but found a way to share or contract for a portion of the specialist's time.

Drawing on the inferences from the New Hampshire survey, particularly from write-in comments and personal discussions, coupled with the results of the Illinois and Wisconsin studies, we feel comfortable concluding that for smaller and more rural communities most public-private partnerships are formed out of practicality rather than deliberate cost saving strategies. For example, one town reported that it was far easier to contract with a local landscaping company to maintain the town common areas than it was to have someone from the road crew perform the same function. The decision to contract was one of practicality, not part of a larger cost savings strategy.

Statistical Patterns

While the descriptive analysis is informative, it is difficult to draw strong inferences about current and future patterns surrounding public-private partnerships in small and rural municipalities. To gain further insight into these patterns we offer three statistical models. In the first model we look to a cross-section of current practices to identify factors associated with decisions to

contract with for-profit private firms, engage in contracts with another municipality, or to engage in any form of public-private partnership. In the second model we look for patterns between the method of service delivery (i.e., partnership) and satisfaction. Finally, we seek to uncover patterns in the intentions to increase privatization in the future.

We offer three central hypotheses. First, New Hampshire towns that are experiencing higher levels of self-reported fiscal stress will tend to be more likely to pursue public-private partnerships. Second, towns that are more politically conservative will tend to more likely pursue public-private partnerships. Third, towns that have larger relative budgets, as measured by the commitment to tax themselves, will tend to be more likely to pursue partnerships to enhance service quality. Larger towns are expected to have more resources to explore the public-private partnership options, have the potential for greater savings, and attract more bids due to their scale. At the same time their size may make some services cost effective to provide in house where smaller towns could not handle capital costs.

A slightly positive relationship is hypothesized. For fiscal stress we use the scalar response ranging from one to five with one being no stress to five being highly stressed. For political ideology we use the percentage of votes for the republican candidate in the 2004 gubernatorial election. The measure of budget size, or tax commitment, is constructed by multiplying population, income and the local tax rate.

We also include a geographic dummy variable to identify Rockingham, Hillsborough, and Cheshire counties, which form the southern border with Massachusetts. We include this dummy for two reasons. First, most of the growth pressure in New Hampshire is associated with the expanding Boston metropolitan areas. Second, the three southernmost counties in New Hampshire may have better access to private contactors in the more populous neighboring Massachusetts, making them more likely to receive competitive and cost saving bids.

Because our sample consists of a large number of services observed in a limited sample of municipalities, we elected to pool the responses across the 14 services examined in Table 2. We then look at three specific partnership strategies: contracting with private for-profit firms, contracting with another unit of government, and finally if services are delivered through any form other than "your employees entirely." The dependent variables take on a value of one if the town uses that particular partnership strategy, zero otherwise. The 1,422 observations represent the 14 studied services for each of the 136 towns responding to the survey, minus non-responses to specific questions. To control for the disparate services we include dummy variables for 13 of the services. Because of the discrete nature of the dependent variables we use a logit estimator. The results of the three models are presented in Table 3.

The coefficient for fiscal stress is negative in all three estimations and significant twice. New Hampshire towns that are currently in a position of

Table 3. Logit Model: Forms of Service Provision in Pooled Cross Section

	Private for profit	Other municipality	Other than own employees
Fiscal stress	-0.16* (1.92)	-0.30*** (2.96)	-0.07 (0.99)
Percent Republican	0.02*** (2.63)	-0.03*** (2.92)	0.00 (0.12)
Southern County	0.22 (1.44)	0.25 (1.43)	0.24** (1.97)
Log(taxcommit)	-0.16*** (2.38)	-0.59*** (7.24)	-0.51*** (8.78)
Solid Waste Disposal	0.49 (1.47)	17.26 (12.63)***	1.72*** (5.23)
Recycling	-0.07 (0.22)	16.82 (12.34)***	0.87*** (2.89)
Street Sweeping	0.69** (2.05)	14.89*** (9.94)	0.72** (2.29)
Janitorial Services	-0.20 (0.56)	14.18*** (8.53)	-0.11 (0.34)
Bldg/Grnds Maint.	-0.48 (1.30)	14.08*** (8.51)	0.27 (0.89)
Tax Assessing	1.15*** (3.67)	13.78*** (8.40)	1.49*** (4.84)
Title Rec./Map Maint.	0.25 (0.76)	15.94*** (11.68)	1.04*** (3.40)
Police Training	-2.67*** (3.52)	18.12*** (13.01)	1.72*** (5.27)
Fire Training	-2.61*** (3.45)	17.85*** (12.84)	1.82*** (5.43)
Police Communication	-2.35*** (3.68)	18.86*** (13.50)	1.09*** (3.56)
Fire Communication	-2.35*** (3.67)	19.09*** (13.62)	1.39*** (4.44)
Emrg. Medical Services	-2.02*** (3.54)	16.91*** (12.38)	0.71*** (2.34)
Ambulance	-0.16*** (0.47)	17.23*** (12.67)	0.95*** (3.17)

All estimations report logit coefficients based on 1422 observations. Coefficients on types of service relative to Parks Landscaping/Maintenance. Absolute value of z-statistics in parentheses.

*significant at 10% level; **significant at 5% level; ***significant at 1% level.

self-identified fiscal stress are less likely to either contract with private for-profit firms or contract with other municipalities. There are several ways to interpret this somewhat surprising result. The result may indicate that towns that contracted for services in the past are good fiscal managers and therefore not currently facing stress. This could be causal, in the sense that contracting decreases fiscal stress.

Alternatively, it could merely represent a correlation: the most efficient town officials avoid fiscal stress and are also more likely to engage in innovative forms of service delivery. An alternative explanation, which would be consistent with the findings of Joassart-Marcelli and Musso (2005), is that the poorest towns are the ones least likely to have access to public-private partnerships or cooperative agreements.

The influence of total tax commitment does support our hypothesis that larger towns are more likely to have existing private contracts or to use other forms of contracting. We hypothesized that larger towns may have more contracting partnerships because of a greater variety of services offered, larger scale to capture cost savings and the ability to attract more competitive bids. Our results suggest the opposite; larger towns as measured by budget size are

more likely to rely on their own employees to provide services. This finding does not refute the findings of other studies that have focused on metropolitan areas. One must keep in mind that the sample here is of small towns with an average population of 4,900. Even the largest two municipalities of this sample, the City of Nashua and the City of Rochester, have populations of only 86,000 and 28,000, respectively. Rather, our findings should be interpreted as meaning that as small municipalities become larger they are more likely to retain traditional service delivery mechanisms of using public departments and employees. More generally, it suggests that municipalities in metropolitan areas have greater flexibility in pursuing alternative service delivery options.

The remaining coefficient estimates are generally consistent with our expectations for the ideological variable is also statistically significant in the first two estimations and has the expected sign; local conservative ideology makes it more likely for towns to contract with private for-profit firms and less likely for them to contract with other governments. The coefficient for the geography variable has the expected sign and is significant at the ninety percent level in two estimations. The dummy variables representing the particular services provided are generally statistically significant and are supportive of the descriptive analysis presented in Table 2. The top seven services, where contracts are perhaps easier to construct and monitor are most frequently contracted out. In contrast, the last seven services, for which it may be difficult to specify full contracts, are more likely to be provided by cooperative agreement.

Overall, the results are indicative that scale, ideology, fiscal stress, and geography all influence how services are provided. Unfortunately, in a cross-section the independent variables do not necessarily represent the conditions affecting the town when the decision over service provision was made, a disparity unavoidable in this survey. Therefore, one should not infer causality into these results. If contracts are reviewed relatively frequently, then the decision to start or continue private contracts may be closely linked to the observed independent variables.

While the results presented in Table 3 identify factors associated with different forms of service provision, they provide no indication of perceived quality. To gain insight into this basic question we estimate a mirror model where we regress our measures of fiscal stress, ideology, and size on reported levels of satisfaction. As in the previous model we control for the particular service along with an additional set of dummy variables to control for the type of partnership. Because the satisfaction is an increasing Likert scale we use an ordered probit estimator. The results are presented in Table 4.

The New Hampshire data indicates that fiscal stress, ideology, and size are closely linked to perceptions of satisfaction. Higher levels of stress and a higher share of republican voters are both associated with lower levels of satisfaction. Larger size, measured as tax commitment, is associated

Table 4. Ordered Probit Model: Satisfaction with Forms of Service Provision in Pooled Cross Section

	Satisfaction
Fiscal stress	-0.20*** (5.39)
Percent Republican	-0.01** (2.52)
Southern County	-0.08 (1.21)
Log(taxcommit)	0.05* (1.70)
Solid Waste Disposal	-0.19 (1.11)
Recycling	-0.13 (0.76)
Street Sweeping	-0.03 (0.17)
Janitorial Services	-0.28 (1.59)
Bldg/Grnds Maint.	0.02 (0.14)
Tax Assessing	0.24 (1.42)
Title Rec./Map Maint.	0.03 (0.15)
Police Training	0.46** (2.49)
Fire Training	0.43** (2.30)
Police Communication	0.05 (0.30)
Fire Communication	0.16 (0.88)
Emerg. Medical Services	0.46** (2.50)
Ambulance	0.35* (1.95)
“Your employees in part”	-0.72*** (7.77)
“Employees of another government”	-0.52*** (4.65)
“Private, for profit”	-0.53*** (5.59)
“Private, non-profit”	-0.59*** (3.30)

Pseudo R-squared .053.

Ordered probit coefficients: higher values indicate more satisfied, 1173 observations. Coefficients on types of service relative to Parks Landscaping/Maintenance, and coefficients on service provision relative to “your employees entirely.” Absolute value of z-statistics in parentheses.

*significant at 10% level; **significant at 5% level;

***significant at 1% level.

with higher satisfaction. These results coupled with the results presented in Table 3 suggest that municipalities experiencing fiscal stress are less likely to pursue partnerships and also likely to be less satisfied with service delivery. This is not to say that these municipalities are *totally* dissatisfied, just *less* satisfied with partnerships; as the descriptive analysis presented in Table 2 suggests, overall respondents are satisfied with current arrangements.

The specific nature of services also affects satisfaction. Respondents were typically more satisfied with services relating to emergency services, like police, fire, ambulance or emergency medical services. Most interesting to our

study are the coefficients on the final four variables, which identify the type of partnership. These measure satisfaction with the form of service provision, relative to “your employees entirely.” All other forms of provision produce lower levels of satisfaction.

However, given this dissatisfaction, there is little qualitative difference between the satisfaction from services provided by other municipalities and services provided by private contractors. This result suggests that contracting, either with for-profit private firms or through cooperative agreements, lowers quality. While this result is strongly indicative that municipal employees associate privatized services with lower quality, it is important to recognize several limitations inherent in our empirical specification.

First, the coefficients may reflect a bias, in terms of perception, by respondents towards local control. Second, the dummy variables representing the specific services are closely correlated to the form of provision, which means that our estimations suffer from multicollinearity. Re-estimating the models without these dummy variables yields similar results. The four indicators for forms of provision remain negative and significant and we still cannot reject the null hypothesis that satisfaction with services from other municipalities is the same as satisfaction with services from private contractors. Finally, as the estimates from Table 3 suggest, the explanatory variable, the form of service provision, may itself be endogenous.

Our final estimation seeks to identify patterns in plans to increase contracting, or privatization in the future. Because this analysis is based on a single survey question, we are limited to only the 85 municipalities that responded. Thus some care must be taken in interpreting these results because of the limited degrees of freedom. The survey question on how privatization will change in the municipality over the next five years serves as the dependent variable, and takes a value of 1 for a predicted *increase* in privatization and 0 for less or the same. The model includes expectations about future fiscal stress under the hypothesis that increasing budget pressure is expected to push towns to find alternative cost saving measures.

Just as in the prior models, the estimation also controls for conservative ideology, geography, and town resources. Finally, our model also controls for current experiences with privatization. The reported results include a simple dummy variable that assigns a value of one to towns that have privatized two or more of the eight services at the top of Table 2.⁴ We expect that institutional learning should increase the efficiency of managing contracts and create a positive sign on this coefficient. The results are presented in Table 5. Given the small sample size, the model produces largely insignificant results. Nonetheless, the coefficients are indicative that the factors that affect future partnership practices are similar to those associated with current privatization. The only exception is tax commitment, which is now positive and strongly significant. Larger towns are significantly more likely to incorporate future privatization into their fiscal planning.

Table 5. Logit Model: Plans to Increase Privatization

	Plans to increase privatization
Expected future fiscal stress	0.21 (0.65)
Percent Republican	-0.05 (1.44)
Southern County	0.65 (1.02)
Log(taxcommit)	0.88*** (2.71)
Privatization Experience Dummy	0.57 (0.90)

Pseudo R-squared .157.

Logit coefficients based on 87 observations. Absolute value of z-statistics in parentheses.

***significant at 1% level.

CONCLUSIONS

Despite the extensive literature examining public-private partnerships in the delivery of public services few studies have focused on smaller and rural municipalities. This study has attempted to address this shortcoming in the literature by focusing on towns in the state of New Hampshire. Through the survey we have documented that even the smallest municipalities have a range of experiences with various forms of partnerships ranging from contracting with for-profit private firms to non-profit organizations. As expected, services where contracts could be readily crafted and monitored tended to be outsourced the most. At the same time respondents expressed a willingness to explore opportunities.

While we find that respondents to the survey were generally satisfied with current arrangements respondents were least satisfied with services that were outsourced. This result was somewhat unexpected because it is inconsistent with a central theoretical justification for outsourcing: specialization through either private firms or public organizations will provide better service at a lower price. One possible explanation that is relevant to smaller and rural governments is that a significant portion of New Hampshire municipalities expressed concern about receiving insufficient bids. This is an important finding because a necessary condition for outsourcing to be effective is the need for a sufficient number of entities competing for the contract. These can be other government agencies, private for-profit firms or non-profit organizations. But for smaller and rural governments this critical mass of competing entities may not be present. As a result, outsource is an unrealistic or a "second best" opinion.

The majority (63 percent) gave the rather lukewarm response of savings from privatization in only some instances. Despite these apparent problems, the overall rate of private contracting is large with 17 percent of all current services provided by private firms. Existing outsourcing decisions show a

clear relationship with fiscal stress, ideology, geography, and budget size. The existence of a relationship between low current fiscal stress and more existing outsourcing does not necessarily support the theoretical cost savings that have been proposed elsewhere.

Despite some limitations, both ideology and fiscal stress have been shown to correlate to outsourcing. Accordingly, future work would benefit from incorporating both political and economic variables into examinations of the outsourcing decision at the municipal level. Likewise, the choice of stated fiscal stress is a logical addition to the problem of measuring the amorphous fiscal stress condition. The combination of variables from the fields of political science, economics and regional science has not produced a clear model of outsourcing in municipalities but each field has produced theoretically justified variables that are stronger in combination than alone. The New Hampshire survey data support an interdisciplinary approach to understanding the drive to outsource out municipal services.

The most consistent insight from both the quantitative and qualitative results is that population and budget are important in the outsourcing decision. Small towns have both private contracts for a higher percentage of total services and appear to have adopted contracts earlier in the model of existing services. In general the data collection at the level of town government, which is the most prevalent in New Hampshire, greatly increases confidence in the accuracy of results reflecting current trends.

NOTES

1. Numerical benchmarks such as tickets written and arrest rates can encourage overly aggressive police tactics and may create an incentive to underreport actual crimes. As noted by Weisheit and Donnermeyer (2000) rural areas present particularly unique problems with crime statistics.
2. A full set of descriptive results are available from the authors.
3. Some care must be taken with drawing too strong of a conclusion because we have a single snap-shot of time with the survey and do not have evidence of levels of service satisfaction prior to current arrangements.
4. We have also experimented with other specifications for this model, where the dummy variable is interacted with measures of satisfaction. The results are not qualitatively different.

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