

Practicality and Privatization in a Rural Context:
Data and Analysis from North Dakota

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Abstract:

City and county governments continue to experiment with privatization and alternative delivery strategies for public service provision for reasons as diverse as decreasing operating costs, increasing responsiveness, or maintaining service levels when pressured by fiscal stress (Brammer, 1997; Greene, 1999). Rural jurisdictions have been largely underrepresented in this discussion, and this study corrects this oversight while expanding the existing research on alternative service provision to include the rural context. North Dakota is at the center of an ongoing oil boom whose developments have had dramatic impacts on all types of governmental decisions in the state. For this paper, we examine new data on service delivery choices from over 200 cities and counties in North Dakota, and contrasted with similar data gathered from the same population 5 years ago. We examine the impact of resources, demands for services, and ideology on service delivery choices, and how those choices have changed since the oil boom began.

Practicality and Privatization in North Dakota

In the shadow of today's record crop prices, booming demand for bio-fuels, and generous farm subsidies, it is easy to overlook the fact that much of rural America is struggling economically. Though individual farms are reporting record or near-record profit levels, significant changes in agriculture production over the past several decades have profoundly altered virtually every aspect of rural life – including local governance – and the number of both farms and workers has dwindled as mechanization has made it possible for a single person with a combine to replace the work of an entire team of farm workers. In many parts of the rural Midwest, populations are shrinking and the citizens who remain are aging, leaving local governments to face a perfect storm of increasing citizen need coupled with decreasing resources available for meeting that need.

As Browne (2001) and others have repeatedly pointed out, the United States has had no coherent rural policy for many years. At the national level, policymakers have traditionally viewed farm policy and rural policy as one and the same, and the practical impact of this approach has been that cities and counties are often left to use their own best judgment as to what services to provide and how to best provide them. And while considerable academic research has been conducted on the challenges associated with managing uncontrolled growth, revitalizing blighted urban areas, or redistributing resources to underserved populations, far less attention has been given to the challenges of

basic service provision, and almost none to how basic services are provided in rural settings.

There are many ways to deliver the basic services of government, and their costs to the tax base can vary dramatically. The practice of contracting out or privatizing services has been growing across all levels of government in recent decades as many policymakers have embraced market principles and allowed private firms to compete for the right to deliver government services. While there are many who have promoted privatization as an ideological principle – that governments should not perform tasks that the private sector is able to perform – some research suggests that privatization efforts *can* promote more efficient and effective public service provision.

It is this practical aspect of “doing more with less” that can be particularly appealing to rural cities and counties. North Dakota is an interesting case in point. In North Dakota, declining population trends during the last two decades eroded the tax base and left cities and counties struggling to provide even the most basic services to residents who are often older, poorer, and less educated than those who have departed. In fact, in the 1990s the state of North Dakota was a prominent example of a broader depopulation trend occurring today across the Great Plains region (Popper and Popper 1987; Rathge 2005), but that trend has reversed in recent years spurred by the oil boom in Western North Dakota’s Williston Basin.

New drilling technologies, such as hydraulic fracking, have allowed resource extraction in North Dakota’s Bakken Shale to proceed at a frenzied

pace now that companies can reach minerals that could not be reached in the past. Population has grown and it has been reported that North Dakota has surpassed drilling activity in Alaska to become the second leading oil producing US state. Now that oil companies are becoming firmly established in the state, North Dakota's experience with all of this drilling activity can be described as janus faced. Prior to 2008, North Dakota was sparsely populated and struggled with out-migration and relatively low revenues, but now that resource extraction has tempered these concerns, North Dakota is beginning to face the challenge of a deteriorating transportation infrastructure and the social problems that come with rapid population growth in the West. With a budget surplus of over \$1.6 billion, this will surely be a topic of conversation as the state continues to undergo changes.

Declining population in some rural areas is not unique to North Dakota or even in the Great Plains. Many other states face similar challenges in their rural areas, but one key difference is that out-migration in these areas is typically balanced by sustained growth in large urban centers within the state. These urban centers generate revenue that can be reallocated by state governments to supplement local shortfalls. North Dakota is also experiencing increased centralization – currently over half its population resides in just four counties – but the additional challenge of out-migration from the rural areas makes this state a worst case scenario for cities and counties who provide basic public services. The 2000 Census indicates that North Dakota was the only state to experience a decrease in total population between 1990 and 1999, and the population of one

particularly hard hit rural county declined by nearly 25 percent during those same 10 years. The most recent census, however, shows that this trend has reversed and population is estimated to have grown to nearly 700,000 people in 2012, with some counties in the western oil fields experiencing growth upwards of 25.6 percent between 2010-2012.

The literature on privatization and other forms of alternative service provision has not yet examined the unusual conditions facing these rural cities and counties. It is also worthwhile to examine how rural cities and counties respond to exogenous shocks brought about by rapid economic development as a consequence of resource extraction. Research has shown that municipal governments overall have been experimenting for some time with the privatization of public service provision, for reasons as diverse as decreasing operating costs, increasing responsiveness, and maintaining service levels when pressured by fiscal stress (See Brammer, 1997; Greene, 1999; Savas 2005). Yet these studies have focused almost exclusively on urban or suburban jurisdictions, neglecting the very real possibility that rural areas might behave differently.

One prominent exception in the literature suggests that though the smallest cities and towns would presumably benefit the most from the privatization of services, the advantages of contracting out actually break down in rural areas, since the economies of scale that increase efficiency are not possible when local government units are geographically separated by hundreds of miles of empty farmland (Warner, 2006). Thus, they are less attractive to private

market vendors and are more likely to provide services through their own employees.

One reason for this gap in the literature is that data on service provision patterns has been difficult to obtain for cities and towns with populations smaller than 2,500. The International City and County Manager's Association (ICMA) has for many years gathered data on privatization patterns among cities and counties in the United States by sampling all cities with populations over 10,000 and all counties over 25,000. They also sample one in eight cities with populations between 2,500 and 10,000 and counties with populations between 5,000 and 25,000. The resulting data have been used to paint an accurate assessment of privatization patterns across the United States generally, but they are unable to say with any confidence what is happening beneath these thresholds.

This paper makes three primary contributions to scholarship on privatization and rural service delivery. First, it provides to the research community a new set of data from cities and counties that are below the population thresholds of ICMA studies. In 2007 and 2012, we sent out surveys to all North Dakota cities and counties to ask respondents how they delivered services in their respective jurisdictions. All but nine of the 200 North Dakota municipal jurisdictions surveyed for this research have populations of less than 10,000, and more than half are below 1,000 persons. Furthermore, more than half the counties in the sample have populations of less than 5,000, the lower threshold of ICMA samples. We believe that gathering and making available such data provide benefits to the research community generally and opens the

door to a more clearly articulated set of policy recommendations aimed at solving the problems of these often overlooked places, especially other states where hydraulic fracking has allowed resource extraction to occur in rural areas.

Second, by comparing our 2007 data with the 2007 ICMA survey data we are able to extend theoretical discussions on privatization to include a rural context.¹ Specifically, in this paper we compare the cities and counties of ICMA's North Central region with the cities and counties of North Dakota for both the level of service provision overall and the utilization of three forms of privatization. We also provide greater detail and analysis of the patterns of service provision observed in the North Dakota data.

Finally, we are curious about the impact of rapid economic development in Western North Dakota on service provision throughout the state. This section of the paper is exploratory in nature. Economic development and population growth may be stretching rural county and city governments thin, causing them to respond by contracting out services to others. On the other hand, North Dakota cities and counties may choose to provide these services directly if economic development has caused them not to be as fiscally stressed as they once were.

In the sections that follow, we begin with a discussion of the theoretical foundations of contemporary scholarship on alternative service delivery and how they might apply in the North Dakota context. This is followed by a section on the methodology used to gather the data and the limitations of our approach. In the third section, we present our findings with regard to service provision and

¹ We intend to compare our 2012 data from our North Dakota survey with the 2012 ICMA survey when the data are released.

patterns of privatization in North Dakota and our comparisons with the ICMA data from the region followed by a short section examining alternative service delivery in pre- and post-oil boom North Dakota. In the final section, we discuss the implications of our findings in the broader context of alternative service delivery and evaluate the overall generalizability of ICMA data to rural communities and how exogenous shocks may impact service delivery in the states.

Alternative Service Delivery in Rural Government

Alternative methods of service delivery have been a topic of some interest for both government reformers and scholars for several decades. The term “alternative service delivery”, which can encompass a broad array of government activities, arises from the essential notion that governments can choose to provide a service with their own resources, employees and equipment or they can purchase the service from the private sector or another government (Stein, 2003). Proponents of alternative service delivery argue that market forces combined with economies of scale can often both improve the quality and reduce the costs of public service provision.

Arguably the most studied subset of alternative service delivery is that of privatization, which refers to the leveraging of private sector resources to achieve a public policy goal. Despite, or possibly because of its prominence among reformers in recent years, the definition and practical application of privatization remains somewhat imprecise. One non-academic overview found 57 separate definitions to describe the following three privatization activities: contracting out, shifting government responsibility away from service provision or the divesting or

selling of assets. Others have described privatization as a “fuzzy concept” (Starr, 1998) that eschews a single definition (Nightingale & Pindus, 1997).

The most common form of privatization is contracting out. Dilulio, Garvey and Kettl (1993) draw an important distinction between privatization and contracting out that rests in the roles of the public and private sectors over decision-making, financing and implementation. Where pure privatization exists, the private sector is responsible for all three functions; government effectively transfers both responsibility and authority for providing the service to the private sector. Contracting-out, on the other hand, typically leaves decision making and financing, as well as ultimate authority and responsibility in the hands of government. Intergovernmental arrangements are a form of contracting out where one unit of government assumes responsibility for the provision of public services with (or for) another (usually neighboring) municipal or county government (see Brown & Potski, 2003).

The theoretical argument for all forms of privatization, including contracting out, is grounded in public choice theory (Daley, 1996) and this has become an important subset of the new public management literature and its progeny, including the National Performance Review and Reinventing Government movement in the United States (see Lynn 1996; Barzelay 2001). Though the focus for much of the 1990s was on national reforms, privatization has continued steadily at the local level among cities and counties large and small. Because of their unique position in the context of American federalism, the municipal level remains a harbinger of privatization efforts. Indeed, Daley

writes that privatization's "most dramatic appeal and clearest test is found among local governments" (1996, 629). In comparison to abstract public services offered by the federal and state governments (such as national defense or environmental regulation), many of the services offered by local governments are well suited for various levels of privatization; textbook examples include refuse management, emergency services, and water provision (Stein, 2003).

An important question for this research is whether the perceived advantages of alternative service delivery articulated in the paragraphs above apply to all governmental units regardless of size, resources, or population density. One study suggests that medium sized cities with high privatization levels tend to be wealthy, suburban and fiscally healthy (Greene 1996). Other studies have identified environmental factors such as culture, ideology, level of fiscal stress, and type of government contribute to privatization decisions. In fact, most studies of alternative service delivery tend to emphasize medium to large cities in urban and suburban environments, but a growing literature on rural governments is beginning to suggest that the role of alternative service delivery might be different for rural governments than for their urban or suburban counterparts.

One path breaking study by Mildred Warner (2006) argues that rural areas are not attractive to private market vendors because of the great distances between locations, and that rural governments are therefore disadvantaged as a result. If a private vendor has several potential contracts, and one is a rural community far removed geographically from the others, the bid for that

community is going to be higher than for the others. One question for this research is whether the efficiency advantages of alternative service delivery remain even after these additional costs are paid.

Another important question relates to the trend toward privatization overall. A number of recent studies have suggested that while privatization remains popular, its use may have plateaued among municipal (Heferts & Warner, 2004) and state governments (Chi, Arnold & Perkins, 2003) between 1997 and 2002. Moreover, the 2002 and 2007 ICMA data suggest that privatization is now a “two-way street,” and scholars have identified a number of instances where municipal governments have reintegrated privatized and contracted services back to public sector management (see Warner, 2006; ICMA, 2008).

The concept of alternative service delivery has been part of the public discourse for some time, and small, rural places can be assumed to have strong incentives to find the most efficient way to deliver services in order to reduce costs. On the other hand, rural communities are generally conservative in their approach to government, and often resist externally imposed change. Furthermore, most North Dakota communities are governed by part-time staff and elected officials with little formal training or education in governance. Clearly, the privatization of public services is more than a passing trend nationally, yet it remains to be seen whether the benefits outweigh the costs for local governments in rural North Dakota and whether they continue to see this as a

viable way to deliver important services either in an environment of declining resources in 2007 or in the current period of abundance.

The North Dakota Policy Context

North Dakota is clearly a rural state, yet there are enough different conceptualizations of the term to warrant a discussion of what rural means here, and how that might be different from other rural settings. At least three federal agencies have published methodologically distinct definitions that only serve to highlight the wide range of communities that might be considered rural (for a summary, see USDA Rural Information Center, 2008). At one end of this spectrum are rural communities on the outskirts of rapidly expanding metropolitan areas. These areas often face challenges associated with rapid growth and development, increased traffic, environmental damage, and crime.

At the other end of the spectrum are the deeply impoverished rural communities of the South and East. In these places, populations may be stable and communities may be close enough to pool resources, but poverty is entrenched and opportunities for economic development are limited.

Somewhere in the middle of this continuum are North Dakota and the states of the Great Plains, as well as the sparsely populated regions of the Mountain West. Though geographically similar, these states are functionally quite different when it comes to local governance. In the Mountain states of Montana and Wyoming, organized municipalities are few and large counties perform most of the local government function. In North Dakota, by contrast, municipal governments are abundant. Whether as a result of the “too much

mistake”² or as a byproduct of the community-based orientation that placed North Dakota at the top of Putnam’s index of social capital (Putnam 2000), communities in this state tend to organize and support municipalities scattered widely across the state. When unincorporated townships, special districts, and counties are included in the count, North Dakota has 2,735 units of local government – one for every 234 residents in the state. North Dakota has more local governments per capita than any other state in the Union, and residents have generally tended to resist consolidation into larger units or transferring greater responsibility for service provision to counties.

Data and Methodology

The data for this project were gathered through a mail out survey of local policymakers conducted through the Bureau of Governmental Affairs at the University of North Dakota and the Department of Political Science and Public Administration’s MPA program. The goal of the initial project was to improve knowledge about how local public services are delivered in North Dakota cities and counties by gathering and organizing information for each city and county into a usable form made directly available to policymakers and small business owners statewide.

Beginning with the approximately 360 incorporated municipalities in North Dakota, we excluded communities with less than 100 residents or three active businesses. These municipalities were thought to be too small to provide most

² One of six themes of North Dakota history developed by North Dakota historian Elwyn B. Robinson. **Put simply**, the argument **posits** that initial settlers created too much infrastructure in anticipation of a population influx that never materialized, and that the state has been caught up in retrenchment ever since (see <http://www.und.nodak.edu/dept/library/Collections/Robinson/themes.html>).

services on their own, and there was concern that including them would introduce unnecessary bias. This produced a sample of 200 cities in the state to be surveyed. Communities in the 2007 sample ranged in population from 114 to 90,599, and had a median population of 484, while communities in the 2012 sample ranged in population from 85 to 107,349, with a median of 558. In addition, each of the 53 counties in the state was added to the sample, for a total sample size of 253. For each city, a key individual was identified from the North Dakota Directory of Government Officials (2004). Typically, these individuals were a mayor or city manager, and were chosen for their familiarity with local policy in this area.

Surveys were initially mailed in November, 2006 with follow-ups in January and February of 2007. Another round of surveys were sent in December 2012, with follow-ups in January of 2013. In 2007, valid responses were obtained for 148 cities and 51 counties, resulting in an overall response rate of 79 percent. The 2012 data include 121 cities and 37 counties for an overall response rate of 62 percent. Survey respondents were asked to indicate which modes of service delivery best describes the provision of 59 services in their governmental jurisdiction. Following the format of the 1992 ICMA survey, these services were grouped according to seven policy categories, which include: *public works and transportation, public utilities, public safety, culture and arts programs, health and human services, parks and recreation, and support functions.*

For this article, the 2007 data were supplemented with data from the North Central Region of the ICMA's *Alternative Service Delivery 2007* dataset. As a subset of the national sample, the North Central Region data contains responses from cities and counties in Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. The number of cities and counties from this region included in the sample was 1,794, and valid responses were obtained from 517 for a regional response rate of 28.8 percent. The response rate for the national sample overall was 26.2 percent³. The survey instrument for the ICMA survey included 67 services, 55 of which were also present on the North Dakota survey instrument. For the comparative tables in the analysis to follow, services that were not present in both datasets were excluded.

Comparing Patterns of Service Provision

A simple methodological approach is used throughout this paper to meaningfully compare the two samples. In most cases, mean scores are reported for each sample with standard errors in parenthesis. A confidence interval of two standard errors (95%) is calculated around each mean, and statistically significant differences are indicated when the intervals do not overlap. Of the 55 services common to both surveys, cities in the North Dakota sample provided an average of 40 (.80) services across all categories, while the average for ICMA cities was 34 (.47). A confidence interval of +/- 1.6 for North Dakota and +/- .94 for ICMA generates a top and bottom boundary of 38.4 and 41.6 for North Dakota cities and 33.1 to 34.9 for ICMA cities. For counties, the average

³ More detailed methodological information can be found at <http://bookstore.icma.org>.

score for North Dakota was 37 (1.58) services across all categories while the ICMA county average was 29 (.82). The confidence intervals around these means produce a range of 33.8 to 40.2 for North Dakota counties and 27.4 to 30.6 for ICMA counties. In both cases, a clear statistical difference exists between service provision levels, and in both cases the small rural communities of North Dakota provide more services.

Given the realities of declining populations and revenue in 2007, one might expect North Dakota cities to reduce the quantity of services they provide. Yet the data suggest that this is not the case. To discover whether small places generally provide more robust service levels than their urban or suburban counterparts, mean scores were also calculated for those cities in the ICMA data with populations of less than 5,000. For these cities, the average number of services was 32 (.84). As one might expect, smaller places provide fewer services overall in the ICMA sample, but not, apparently in North Dakota.

One explanation for this finding is that in more densely populated areas local governments can often discontinue services when alternatives are offered by private firms or provided by other units of government. In the hinterlands of North Dakota these same services must be provided by local government or not at all. Since some categories of services are more attractive to private firms than others, examining patterns of service provision in each of seven policy categories may shed some light on this possibility. As shown below, the distribution of service provision is not uniform across policy categories. In some categories, such as Public Works and Support Functions, mean scores are well within the

confidence interval, while statistically significant differences in other categories suggest differences in the priorities and choices of local policymakers.

Table 1: Averages of Services Provided in Seven Policy Categories
Mean scores are reported with standard errors in parentheses

Service Category	Cities		Counties	
	North Dakota ^a	ICMA ^b	North Dakota ^a	ICMA ^b
Public Works and Transport ^c	8.32 (.16)	7.97 (.04)	5.88 (.41)	5.26 (.26)
Public Utilities ^d	4.78 (.12)	3.58 (.09)	2.86 (.39)	.87 (.17)
Public Safety ^e	5.14 (.15)	5.36 (.08)	4.69 (.29)	3.64 (.16)
Health/Human Services ^f	4.86 (.26)	3.66 (.16)	5.44 (.44)	5.33 (.27)
Parks and Recreation ^g	2.32 (.07)	2.05 (.04)	1.76 (.16)	1.51 (.10)
Cultural / Arts Programs ^h	.83 (.07)	.78 (.04)	1.18 (.12)	.67 (.07)
Support Functions ⁱ	11.00 (.26)	11.06 (.14)	12.48 (.37)	12.03 (.22)
N=	135	372	44	107

a. Source: University of North Dakota, Bureau of Governmental Affairs, 2007.

b. Source: International City and County Management Association, 2008.

Notes:

c. 12 services in this category

d. 6 services in this category

e. 7 services in this category

f. 11 services in this category

g. 3 services in this category

h. 2 services in this category

i. 14 services in this category

The cells in Table 1 show the average number of services provided in each of seven policy categories for each sample. Standard error scores are reported in parenthesis so that readers may calculate confidence intervals directly around each mean if desired. Conceptually, these scores paint with a broad brush. They include all services reported by respondents as being provided in the community, whether delivered by city employees or provided through various forms of alternative service delivery. Though basic, this is an important first step, since one of the principal aims of this research is to compare patterns of service provision.

Not surprisingly, the most basic service functions appear to be nearly uniform across both samples. Support category functions such as payroll, tax

assessment and collection, building maintenance and ten other functions are provided at the highest levels, averaging around 11 of 14 services provided in both samples. Counties appear to provide slightly more in terms of support services than cities, but the opposite is true when it comes to public works – another category of basic services. Cities provide around 8 out of 12 services in this category on average, while counties provide only 5 or 6. Public Safety is another category of services that is often thought of as core services, and at the city level North Dakota and the region are not statistically distinguishable from one another. At the county level, North Dakota does provide more services than the regional mean, perhaps because of a substantial network of roads between communities and an unusually harsh winter climate. While the state patrol plays an important role in patrolling Interstate highways, most of North Dakota’s roads are patrolled solely by county (and city) officers.

Beyond the basic core services of government, Culture and Arts and Parks and Recreation programs also show statistically significant differences above the regional means. Whether municipal softball leagues or county libraries, it is not surprising that citizens of small rural communities would desire these services, perhaps even more than those in larger communities. And while in larger communities an array of options might exist to meet the demand for recreation or culture, in small cities and counties the pressure to meet citizen demand rests squarely on the shoulders of local governments. However, this may be less of a difference than it seems, since while local governments in these

communities assume responsibility for organizing delivery of these services, volunteers do much the work and costs to the city are marginal.

Perhaps the strongest and most interesting differences in service provision are found in the public utilities category. If one assumes that ICMA averages represent typical patterns of service provision in communities in the North Central Region, the North Dakota data for public utilities stand out in stark contrast, particularly for counties. Municipal water, power, and sewer systems are common in many parts of the country, yet in North Dakota, it would appear, cities are more active than the norm in providing these services, and counties are more three times more active than their peers.

The public utilities category is comprised of six services: electricity, gas, water, sewer, meter reading, and billing. Water treatment, sewage treatment, and power generation are essential, but expensive, capital intensive activities, and in metropolitan areas, it is common to see special districts created to deliver sewer and water services to all residents within an entire metro area. Private firms may also find it profitable in these locations to provide electricity or gas, usually under contract with local government.

These sorts of relationships are also present in North Dakota, but the long distances between communities have produced a somewhat different pattern of service provision that accounts for the differences observed in Table 1. A distribution of responses for each service, presented below in Table 2, shows that most cities in the state tend to take care of water, sewer, meter reading and billing themselves. It is noteworthy that 85 percent of the cities in the survey

operate and manage sewers, compared to 45 percent of cities regionwide. Over three quarters of the cities assume responsibility for providing electricity to residents, though only five percent operate power generation facilities. Some cities are experimenting with municipally-owned wind farms, but these represent a small fraction of the whole. Nearly all cities that claim responsibility for power provision have elected to contract out the service, though they differ in the mechanisms they use. Natural gas is supported by less than half of the cities, and is not available at all in many smaller towns in the state.

Table 2: Public Utilities
Percent of Cities and Counties that Answered Yes in Each Category

Service	No government involvement		Provided by government		Contracted out	
	cities	counties	cities	counties	cities	counties
Utility operation and management						
... Electricity	22%	57%	5%	0%	72%	45%
... Gas	56%	65%	1%	0%	42%	38%
... water	8%	49%	69%	4%	24%	51%
... sewer	4%	51%	85%	4%	13%	47%
Utility meter reading	14%	55%	66%	6%	27%	42%
Utility billing	7%	55%	75%	8%	24%	40%

Notes:
Source: University of North Dakota, Bureau of Governmental Affairs, 2007.

From the detail in Table 2, it is evident that counties are not directly involved in providing electricity and gas at all, and they are in single digits for water and sewer. But importantly, nearly half retain responsibility for provision of these services and contract with other governments or organizations to ensure that the community needs are met. The data show widespread use of contracts for electricity, gas, and water among city and county governments. Although the data does not directly reflect this, electricity services (as well as cable television and telecommunications) in North Dakota are often provided via franchise with rural cooperatives.

There are 16 electricity distribution cooperatives in the state that operate as member-owned, nonprofit entities and provide rural electrical service to roughly 230,000 residents. Another five generation and transmission cooperatives provide electricity for distribution within the network. This structure tends to be common in rural areas and reflects a flavor of privatization that has not been widely studied in the literature, perhaps due to the data limitations of previous studies. Cooperatives operate under a different decision calculus than for-profit firms, and may provide an interesting dimension to future research by contrasting their effectiveness with that of special districts and private providers.

Patterns of Service Delivery

The use of privatization is not limited to franchising, and the franchise is not limited to public utilities. In fact, outside the area of public utilities franchising appears to play almost no role in service provision. As shown below, cities and counties across both samples use a variety of alternative techniques to deliver the range of services for which they are responsible. In Table 3, the number of services offered via a particular delivery mode is divided by the number of services provided by that government in that category. The cell entries then, reflect the mean proportion of services that are delivered using each mode. In the area of public transportation, for example, cities use their own employees on average for 50 percent of the services, another 22 percent are contracted out with private agencies, 8 percent are contracted with another government agency, and 2 percent are offered via franchise.

Table 3: Unpacking the Contracting Out Component				
Percentages are reported in each category with standard errors in parentheses ^h				
	City Employees	Government Agency	Private Agency	Franchise
Public Works/Transportation^a				
North Dakota Cities ^d	.50 (.02)	.08 (.01)	.22 (.02)	.02 (.01)
ICMA Cities ^e	.47 (.02)	.06 (.01)	.21 (.01)	.01 (.00)
North Dakota Counties ^f	.41 (.05)	.23 (.04)	.06 (.02)	.01 (.01)
ICMA Counties ^g	.42 (.03)	.10 (.02)	.11 (.02)	.00 (.00)
Public Utilities^b				
North Dakota Cities	.51 (.02)	.03 (.01)	.13 (.02)	.24 (.02)
ICMA Cities	.52 (.02)	.09 (.01)	.09 (.01)	.01 (.00)
North Dakota Counties	.06 (.03)	.28 (.05)	.16 (.05)	.23 (.06)
ICMA Counties	.06 (.02)	.07 (.02)	.04 (.02)	.00 (.00)
Health/Human Services^c				
North Dakota Cities	.17 (.02)	.35 (.02)	.08 (.01)	.03 (.01)
ICMA Cities	.28 (.02)	.20 (.02)	.09 (.01)	.00 (.00)
North Dakota Counties	.24 (.04)	.38 (.05)	.12 (.03)	.726
ICMA Counties	.34 (.03)	.13 (.02)	.06 (.01)	.00 (.00)

Source: University of North Dakota, Bureau of Governmental Affairs, 2007.

Source: International City and County Management Association, 2008.

Notes:

a. 12 services in this category

b. 6 services in this category

c. 11 services in this category

d. n= 143

e. n= 388

f. n= 35

g. n= 119

h. Entries in bold indicate a difference greater than 2 standard errors (95% confidence interval).

In the interest of parsimony, data from just three of the seven available service categories are included in Table 3. Public Works was selected because it includes those services, such as garbage collection, that are most often cited as prime candidates for privatization. This is also where one might expect the economies of scale advantage that exists in urban and suburban contexts to deteriorate, producing different patterns of service provision in rural areas. Public Utilities are included to further examine the interesting findings articulated above with regard to franchises. And Health and Human Services is included to

reflect the type of resource intensive services that residents desire but governments often struggle to provide. Also, in Table 1 Health and Human Services was one area where North Dakota cities stood out, leading one to wonder about the mechanisms used to provide these services.

One pattern that might not be immediately obvious in the table is the overall similarity in service delivery mechanisms between North Dakota and ICMA data, particularly when the selection criteria for inclusion in the table is considered. At first glance, this might seem to contradict the findings from Table 1, but recall that those findings compare the *level* of services provided while these data focus on *how* those services are delivered. When it comes to delivery options, in many cases it appears that rural cities and counties behave very much like others, despite the comparative disadvantage of geography and population.

Despite many consistencies in service provision, there are a number of interesting differences in Table 3 that reflect distinct policy choices. In the Public Utilities category especially, North Dakota cities and counties are noticeably higher in their use of all three forms of alternative service delivery. The prominent role of electrical cooperatives in the state was discussed above, but there are also a number of for-profit utilities operating in North Dakota that are reflected in the private agency contract score. North Dakota cities appear to rely less on intergovernmental contracts than is typical in the region, while North Dakota counties rely on them considerably more than is typical.

When it comes to Health and Human Services, the North Dakota patterns show interesting differences as well. Both cities and counties provide a lower than average percentage of services using their own employees, though only for cities do the data indicate a difference that is statistically significant. The scores for government agency contracts on the other hand, are substantially higher than the regional norm and statistically significant for both levels of government. Whether this reflects peer-level cooperation between cities and/or counties or a reliance on state and federal agencies is difficult to determine from these data. There is evidence of both phenomena in the state, and as such this must remain a question for future research. Still, both possibilities help explain the unusual level of services observed in the data for these smaller communities, and suggest that many do indeed find privatization to be more efficient than delivering these services themselves.

Another question of interest for this research relates to the overall patterns of service provision in a rural context. In a similar study of provision choices, Greene (1996) finds that privatization in suburban settings is positively related to the fiscal health and wealth of the community. Other studies have suggested that affluent cities choose to privatize some services for ideological reasons. We have argued that in rural settings the opposite may be true, that less affluent cities and counties will be more likely to take advantage of contracting opportunities in order to deliver services that would be otherwise unavailable. The findings presented in Table 4 below, explore this argument.

In Table 4, a bivariate correlation matrix is presented that highlights the relationship between privatization and community wealth. Per capita income is selected as the indicator of community wealth in order to capture the impacts of population as well as resources. Each of the six modes of service delivery is correlated with each other and per capita income, and cell entries are the resulting Pearson scores. The correlation coefficient indicates the strength of the correlation, with 0 indicating no relationship and 1 (or -1) indicating a perfect linear relationship between the two variables.

**Table 4: Bivariate Correlation of
Per Capita Income and Service Provision Modes**
Pearson Correlation Coefficients

	Per capita income	Not provided	Private means	City employees	Govt. Agency	Private Agency	Franchise
Per capita		-.25**	-.02	.42**	-.16	.15	-.22**
Not provided			-.32**	-.39**	-.36**	-.21**	-.04
Private means				-.02	.08	-.27**	-.03
City employees					-.31**	.01	-.21*
Govt. Agency						.19**	.18
Private Agency							-.06
Franchise							

Notes:

Source: University of North Dakota, Bureau of Governmental Affairs, 2007.

** Pearson correlation is significant at the 0.01 level (two tailed).

* Pearson correlation is significant at the 0.05 level (two tailed).

Several of the relationships visible in the table are relevant to the question of when and why governments privatize or deliver services through other means. The strong positive relationship, for instance, between income and city employee provision is surprising given the findings of previous studies that wealthier cities are more likely to privatize services. In North Dakota, cities with higher income levels are statistically more likely to provide services themselves and less likely

to privatize. This also means that cities and counties with low per capita incomes are less likely to provide services themselves. The negative correlation between per capita income and “not provided” suggests one path for low-income cities. Cities with greater wealth tend to provide more services, while those with fewer resources, in some instances, provide fewer services.

The statistically significant negative correlation between income and franchising suggests another path governments might take; providing services via franchising. Interestingly, the lack of a statistically significant correlation between franchising and “not provided” suggests that governments typically choose one path or the other. If communities that franchised services also provided fewer services, the relationship between these elements would be visible in the data.

These findings tend to favor practicality-oriented explanations of privatization and undermine ideological ones. Furthermore, the negative correlation between “not provided” and the other modes of delivery suggests that rural communities are not at a disadvantage when it comes to privatization either, as previous studies have suggested. These correlations suggest that as more services are offered, governments tend to provide them in a variety of ways. For example, places that provide more services through city employees are less likely to engage in franchising, while places that favor intergovernmental contracts tend to also contract with private agencies. Taken as a whole, these relationships suggest a tapestry of public service provision as rich as those found in urban and suburban communities. Privatization is an integral part of the

service delivery toolkit, even if the reasons for its use may be quite different in rural communities.

Pre- and Post-Oil Boom North Dakota

In the previous section, we showed in Table 2 that service provision in the category of public utilities differed between North Dakota cities and counties and those in the ICMA samples. Water distribution, gas, electricity, and sewage disposal are all essential services for the livelihood of communities large and small, and the choice to deliver these services by means of local government, contracting out, or not at all are important decisions for cities and counties. As the North Dakota economy has grown, we are naturally interested in knowing the extent to which cities and counties are still deliver these services. We used results from our 2012 survey to explore how cities and counties have approached governance after experiencing population and economic growth, as well as the challenges emanating from resource extraction in the western part of the state. Table 5 provides a summary of the various ways cities and counties delivered public utilities in 2007 and 2012.

(Table 5 – Last Page of Manuscript)

The results summarized in Table 5 suggest that governance in North Dakota, at least since 2007, is undergoing dramatic changes with respect to the delivery of public utilities at the city-level. It would appear that, with the exception of water and sewer services, cities have not only become less likely to take on the responsibility of operating and managing these services, but they have overwhelmingly chosen not to oversee these activities altogether. In 2007, North

Dakota cities contracted out the delivery of electrical utilities at a rate of 72 percent of the time, but by 2012 only eighteen percent maintained these relationships with other entities, a 54 percent decrease. The burden of delivering these services appears to no longer involve the activities of city government, where 80 percent have reported having no involvement in this type of activity, an increase of 35 percent. Similar patterns can be found with regard to the delivery of gas at the city and county-level.

If cities in North Dakota are adopting a hands-off approach with respect to the delivery of electricity and gas utility management, the same cannot be said for sewer services and water distribution. The delivery of water to homes appears to be a central function taken on by cities since 2007. In 2007, cities were responsible for delivering and treating water in 69 percent of jurisdictions, while in 2012 that rate increased by nineteen to 88 percent. Growth in responsibility for water distribution has grown at the county-level as well, but that growth pales in comparison to the number of counties who now report not being involved with water distribution at all. While in 2007 only four percent of counties reported being involved with water, the rate today has grown to nine percent, while at the same time nearly ninety percent of counties report not being involved with water distribution at all.

It also makes sense that, if North Dakota governments are no longer involved with the delivery of electricity and gas services, then they would no longer be involved with reading utility meters and sending out the bills for citizens to pay for those services. It used to be that, even though governments reported

contracting out management of electric and gas utilities in 2007, they were nevertheless involved with reading utility meters and sending out bills to customers. The most likely reason for this was to ensure accountability for charging and billing services. Today, private firms have developed innovative ways to measure and charge for services used. Almost gone are the days where the utility employee travels from location to location to read utility meters when utility providers collect billing data from automatic meter reading software and systems. Furthermore, North Dakota cities and counties are likely finding that private utilities offer a whole suite of services that are more attractive to individuals than those traditionally delivered by cities and counties, including the ability to monitor usage and peak activity online or to make online payments instead of traveling to deliver payments in person.

Discussion & Conclusions

For more than a decade now, scholars have studied the spread of privatization and other alternative forms of service provision as communities of all sizes experimented with ways to improve service delivery. Though the greater part of the literature on privatization and contracting out still rests firmly on an ideological foundation, there is a growing body of research that advocates a shift toward a more reasoned discussion of the political, economic, and community factors that shape governmental decisions on whether to provide services directly or contract out.

There has also been a disproportionate focus in the privatization literature on urban and suburban environments. As a consequence, the role of

privatization in America's rural communities has been largely ignored, and scholars have tended to assume that patterns observed in urban and suburban settings were generalizable to communities of all sizes. In part, this has been due to a lack of data for very small places, and an important part of this project has been to gather new data on service provision from rural communities with populations of fewer than 2,500.

We finished by exploring how public utilities are delivered in North Dakota after the state underwent profound changes between 2007 and 2012 as a consequence of oil exploration in the Bakken formation of Williston Basin in western North Dakota. It is clear that since 2007, cities have been taking up more of the burden of providing sewer and water distribution services than they had in the past. One possible explanation for this trend is that western cities have once again assumed this service due to heightened demands by drilling firms for water. It is reasonable to expect that water distribution services once provided by private firms are now too costly as those firms shift their focus to supplying water for drilling firms willing to pay top dollar for water that will support the practice of hydraulic fracking. This clearly presents a situation that supports Warner's (2006) characterization of service delivery as a "two-way street" where cities and counties take on services that had at one time been privatized or contracted out.

In addition to providing new data, this research makes three relevant contributions to our understanding of local service provision. The first is that rural communities provide more services than previous research would lead us to

believe. In this study, North Dakota cities provided 6 more services in 2007 than the regional average and North Dakota counties provided an average of 9 more services. Whether this is a function of geographically isolated rural communities generally or an artifact of North Dakota culture, this finding contradicts the conventional wisdom that the relationship between population and level of service provision is both linear and inverse. We hope to take advantage of the variation that the 2012 ICMA data are expected to provide to explore this point further in a more rigorous model.

The second point is the notion that service provision, particularly at the local level, is a dynamic process. In 2007, North Dakota communities appeared to be conscious of market conditions that provide an efficiency advantage for a service, and were flexible in their choice of mechanisms that allowed them to continue service provision in a climate of decreasing resources. Theoretically, competition is the secret to improving efficiency through privatization. Yet in many rural areas, competition among providers is nonexistent. This implies that local governments should seldom find it in their interest to privatize services. Yet the findings presented here suggest that despite these limitations, privatization is a very real part of service delivery in North Dakota. Nearly every public service listed in the survey results reflects a substantial percentage that have opted to contract for provision, whether through intergovernmental agreement, private contract, or franchise.

The third point is that in rural communities, an inverse relationship appears to exist between the wealth of a community and the privatization of

services. In our data, wealthier communities are substantially more likely to provide services themselves than to deliver otherwise. This finding also contradicts the conventional wisdom in the privatization literature – the notion that wealthy, suburban jurisdictions are most likely to privatize services under pressure from ideologically conservative citizens. Our data suggest that a more pragmatic approach to privatization is prevalent in North Dakota’s rural settings, one that may or may not prevail in other rural contexts such as the Deep South or Mountain West.

The fundamental notion that privatization decisions are based more on pragmatism than on politics is one that deserves to be more fully developed in the literature. The next logical step is to expand our analysis to determine under what conditions local communities choose to deliver services for pragmatic or political reasons with the data we recently collected from North Dakota governments. As local governments continue to move forward and experiment with innovative ways to provide public services, scholars too must move beyond case studies that alternate between the advantages or disadvantages of privatization at specific points in time and under specific contexts. What is needed is a broad theoretical framework that can accommodate governments of all shapes and sizes – even those undergoing rapid development due to resource exploration – while distinguishing the array of general conditions that favor privatization from those that do not. While this is a tall order, in an era characterized by increasing deficits, expanding budgets, and for some rural

areas at least, a diminishing tax base, the potential benefits from this line of research are substantial, and are perhaps more important now than ever before.

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