

**WHY DO LOCAL GOVERNMENTS PRIVATIZE LOCAL SERVICES?  
A SURVEY OF EMPIRICAL STUDIES**

Germà Bel & Xavier Fageda <sup>ψ</sup>

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Key words: Privatization, contracting-out, local governments

JEL codes: L33, R51, H72

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**1. Introduction**

Multivariate studies published in the seventies frequently found costs savings from privatization of local services, including such important functions as solid waste collection (Kitchen, 1976; Kemper & Quigley, 1976; Pommerehne & Frey, 1977) and water distribution (Morgan, 1977; Crain & Zardkoohi, 1978). However, while these studies suggested that local privatization had the potential to reduce costs of service delivery, many municipalities were reluctant to privatize and chose to continue delivery of most services through public production.

Why were so many governments reluctant to reap the benefits of cost reductions through privatization when the earliest evidence indicated that privatization saved money? This paradox focused subsequent analysis on the objectives of local privatization, and in the last two decades, the question of why (or why not) governments privatize local services has been addressed in many empirical works. In this paper, we extensively review and analyze the empirical evidence obtained from multivariate empirical studies for factors explaining local privatization.

Based on this analysis, we conclude that very few elements of the reviewed studies are suitable for generalization. Most studies do support the hypothesis that considerations related to costs are important, particularly when scale economies and transaction costs are taken together. Beyond this point of agreement, results for other hypotheses show large variability between studies. Overall, the most general feature of the empirical research is the limited ability of existing studies to explain what drives local privatization. We address some issues related to this lack of explanatory power and variability of results in a methodological note before our concluding remarks.

The rest of the paper is organized as follows. Section 2 presents and explains the large families of hypotheses that have usually been considered in the empirical studies: fiscal restrictions, economic efficiency, and political process and ideological attitudes. In Section 3, we review the empirical evidence and focus on the results as they relate to the mentioned families of hypotheses. In Section 4 we discuss some methodological problems common to most empirical works that could explain why results are so diverse and explanatory power is so low. Section 5 summarizes the main conclusions.

## **2. Local privatization objectives: A general discussion**

While there is no absolute agreement on what factors might influence privatization, the hypotheses in these studies may be comfortably grouped into two economic and two political families. Economically, governments may be inspired by some combination of fiscal restraints and hopes for lowered costs, while politically leaders may be moved by loyalty to an ideology or a desire to win the support of key interest groups

### *Fiscal stress*

Over many decades in the Twentieth Century, governments used taxes increases to fund the growth of public expenditure resulting from the expansion of welfare mechanisms and

public services at all government levels. At the local level in the USA, this trend toward increasing tax burdens ended in the seventies. Tax revolts and states legislation limiting increases in local taxation were important motives.<sup>1</sup> This is consistent with suggestions in Tiebout (1956) concerning taxpayers' reaction to increasing local exactions. Simultaneously, a widespread economic crisis decreased transfers from federal and regional governments to municipalities. Hence, the two main restrictions on local finance were working simultaneously: a) local restrictions reduced the ability to raise revenues; and b) supra-local restrictions limited transfers from other governments. As time went by, similar fiscal restrictions came to bear on other countries. Most studies of privatization included fiscal variables designed to measure the effects of such restrictions, and the usual hypothesis is a positive relation between fiscal constraints and privatization.

### *Economic efficiency*

Within the academic literature, two explanations have been offered that link privatization to cost reduction. One proposes that privatization works by introducing competition where there is a public monopoly (Savas, 1987), while the second points to the possibility of exploiting economies of scale when the public service has been delivered over a suboptimal jurisdiction (Donahue, 1989).

According to public choice theory, overproduction and inefficiency will be the outcome when politicians and bureaucrats monopolize public services delivery (Niskanen, 1971). Contracting out was expected to lead to cost reductions because it broke that monopoly. The public choice remedy for inefficiency is competition in the markets for public services, which it is expected, will reduce oversupply and costs.

The exploitation of scale economies, when a local service is delivered in a suboptimal jurisdiction, requires only the aggregation of jurisdictions for the delivery of the service.

Privatization can be a useful tool in such aggregation because one firm can deliver services in several municipalities, thus operating at a more efficient scale. Variables related to economic efficiency try to measure the effects of cost reduction objectives on the decision to privatize.

#### *Political processes and ideological attitudes*

Non-economic factors, specifically political processes and ideological attitudes that might explain the decision to privatize local services have also been adopted as variables. Within a democratic environment, two main motivations guide politicians in their decisions. On the one hand, politicians seek to win elections and obtain governmental positions. On the other hand, they have preferences for some policies over others according to their ideological attitudes.

**Political processes:** Within the domain of political interests, the decision to privatize is dependent on the existence of pressure groups with a particular interest in the rents derived from a given form of service delivery. Hart, Shleifer and Vishny (1997) offer very interesting insights into the relationship between forms of production and rents. On one hand, private production of public services makes it easier for politicians to extract material rents, since funds provided by private firms are subject to fewer controls than those granted to public firms. However, public production allows politicians to obtain political benefits from rents by means of jobs patronage, high wages and high levels of service. These kinds of considerations have led to attempts to relate the decision to privatize to the relative strength of different interest groups. Thus, a high level of unionization has been negatively linked to privatization. On the other hand, strong industrial interests should be positively linked to privatization.

Ideological attitudes may also influence a decision on the privatization of local services. Right wing parties have been linked to more pro-private business values, whereas left-wing organizations are associated with public values. If these assumptions are correct, right wing

governments will be positively associated to privatization, and left-wing governments will be associated with public production.

### **3. A review of the empirical evidence on the motivations for local privatization**

To date about thirty works have used multivariate methods to study the decision to privatize local services. Table 1 displays basic information on all the studies we have been able to find, both published and unpublished, that examine proposed explanatory factors of local services privatization through multivariate regression techniques.

#### **Insert table 1 about here**

In this section, we review the results concerning the significant relationships concerning service delivery choices found in this literature. We organize our analysis around the families of variables used to test those relationships: (1) fiscal restrictions, (2) economic efficiency, (3) political process and (4) ideology.<sup>2</sup>

#### **3.1. Fiscal restrictions**

The variables more commonly used to test the hypothesis that fiscal stress influences (positively) privatization are the following: tax burden, legal limitations on local tax levels and the amount of transfers from the central to local governments.

Early studies for the US, those where the data collection was completed in the eighties, frequently find that financial restrictions on local governments influence the choice of production form. Among these studies, only McGuire, Oshfeldt & van Cott (1987), and Chandler & Feuille (1994) infer from their data that fiscal stress is not a significant influence on the privatization choices of local governments.<sup>3</sup>

In more recent studies for the US, those where data collection occurred from 1992 to 2004, fiscal stress appears as a significant explanatory factor only in the works of Kodrzycki (1998), Brown, Potoski & van Slyke (2006) and Hebdon & Jalette (2006).<sup>4</sup> In fact, modern

studies in general do not validate the hypothesis that fiscal stress is a major explanatory factor in privatization. One possible explanation for this difference linked to the year of the study is that all European studies, which usually find (if they even bother to look at hypotheses of this family) no such relationship, were undertaken in recent years. Among the studies for European countries, only Dijkgraaf, Gradus & Melemborg's (2003) study of the Netherlands finds fiscal restrictions to be a relevant influence on local service delivery choices. Additionally, fiscal stress in US could have been more intense in the eighties, the period analyzed in many of the studies that do not reject such hypotheses. Indeed, after Proposition 13 was passed in California in 1978 many states passed legislation that set restrictions on local governments' freedom to manage their budgets. Finally, the decreasing role of fiscal stress can be also explained by the fact that local governments may perceive less benefit from privatization as their experience with the reform has led them to expect less from cost reductions.

Most of the studies that analyze several services tend to validate the hypothesis that fiscal stress is a major explanatory factor of privatization.<sup>5</sup> This result could be easily explained by the fact that the effect on overall financial stress of the internal or external production of just one service should be marginal. Thus, decisions about how to produce local services should be more influenced by fiscal considerations when a broader range of services is being considered.

Finally, it may be expected that studies that use a sample that includes municipalities with populations of fewer than 5,000 inhabitants will more often find a positive relationship between fiscal stress and privatization. Small municipalities have more difficulty generating the revenues to support the expenditures associated with internal production. Privatization can be used both to increase the payments by users and to reduce the cost of funding the service from the general budget (Bel & Miralles, 2005). Nelson (1997) and Lopez-de-Silanes,

Shleifer & Vishny (1997) are the earliest studies that include small municipalities in their data sets. Since then, it has been common to include such municipalities in the samples used for estimation. However, no clear inferences concerning this characteristic can be obtained from our review because few recent studies find a significant relationship between fiscal stress and privatization.

### **3.2. Economic efficiency**

The population of municipalities is the variable usually used for testing whether the desire to exploit scale economies promotes privatization of local services.<sup>6</sup> The hypothesis associated with the variable for population is that small municipalities should use contracting out more frequently to take advantage of the scale economies provided by private firms or public agencies producing in several jurisdictions. Some studies of US cases analyze the alternative hypothesis; large cities will privatize more often since they can take advantage of competition from a larger number of service providers. In order to test this hypothesis, these studies use variables for core metropolitan areas, suburbs and rural areas. Additionally, several works take into account the role of other costs, such as relative wages of public and private sector workers and transaction costs.

The hypothesis that privatization is adopted in order to exploit scale economies is supported by some studies and rejected by others. Some early studies for the US find that large cities tend to privatize less while other research shows that large (and urban) cities tend to privatize more. Similarly, recent studies for the US find both that the exploitation of scale economies promotes privatization and that the size of the municipality does not have any significant influence on production choices.<sup>7</sup> Recent studies for Spain are, taken as a whole, also ambiguous, while Dijkgraaf, Gradus & Melemborg's (2003) study of the Netherlands obtains a significant influence of scale economies on service delivery choices, but Ohlsson (2003) finds no such significance in a study of Sweden.

Evidence in studies that analyze just one service (rather than several) is more favourable to the hypothesis that scale economies are a major determinant of privatization. Indeed, results of the works of McGuire, Oshfeldt & van Cott (1987) for school buses and Feldman (1986) for urban buses support the hypothesis, as do the studies of Hirsch (1985), Stein (1990), Bel and Miralles (2003) and Dijkgraaf, Gradus & Melemborg (2003) for solid waste collection.<sup>8</sup> In contrast, most of the studies that consider a broad range of services do not find significant influence from scale variables.

The influence of scale economies should vary across services according to the size of fixed costs involved in the production of those services. Studies that include several services can include some with low fixed costs, while many of the studies that consider just one service focus attention on solid waste collection. Several studies show the relevance of scale economies for this sector (Stevens, 1978; Callan and Thomas, 2001; Bel and Costas 2006). Thus, it is reasonable to conclude that an analysis of just one service would more appropriately capture the economic efficiency effect.

Finally, studies that include small municipalities in their sample should find a positive relationship between scale economies and privatization. This is the case in the studies of Nelson (1997), Bel and Miralles (2003) and Dijkgraaf, Gradus & Melemborg (2003). Indeed, small municipalities should be more able to use privatization to take advantage of scale economies since privatization allows integration of services across suboptimal jurisdictions. Nevertheless, some studies that include small municipalities in their sample do not obtain the expected relationship between privatization and scale economies (Warner and Hebdon, 2001; Brown, Potoski & van Slyke, 2006). These works make estimations for a whole range of services. Thus, it seems that for this hypothesis the type of service is the most powerful explanation for differences in the results across studies.

With regard to the influence of relative wages, higher public wages seem to be positively correlated with privatization in a few early studies for the US but not in some recent studies that analyze this aspect. Overall, the scant attention paid to this aspect in the recent literature allows one to conclude that it has little relevance as an explanatory factor for service delivery choices.

Finally, it is worth noting that some recent studies focus on the role of transaction costs in the delivery choices of local governments. In this sense, Menard & Saussier (2000), Levin & Tadelis (2005), Walls, Macauley & Anderson (2005) and Brown, Potoski & van Slyke (2006) argue that the likelihood that production will be externalized is higher for services associated with low transaction costs, that is, services with low specific assets and whose performance is easily measurable. Additionally, some studies (Nelson, 1997; Martínez Rodríguez, 2004) argue that the positive relationship that they infer from empirical results between privatization and population homogeneity is due to the lower transaction costs associated to that homogeneity.

### **3.3. Political processes**

Political considerations are analyzed through the relationship between privatization and the relative strength of interest groups affected by such policy. The variables more usually considered for capturing this effect are the percentage of public employees over population, the degree of unionization of public employees and the income level of households.<sup>9</sup> It is generally argued that public employees and unions are in favour of internal production, while high-income households have more preference for privatization.<sup>10</sup>

Here we must recall that the variable for the weight of public employees is statistically biased since there is a simultaneous determination of service delivery choices and the percentage of public employees. Indeed, a more intense use of external suppliers implies *per se* a reduction in the number of public employees. Hence, we will not consider results from

studies that use this variable for testing the group interest hypothesis. Rather, we will come back to this issue in our methodological note, below.

Early studies for the US, those where data was collected in the eighties, usually find a negative relationship between privatization and the degree of unionization in the public sector or, alternatively, a positive relationship between privatization and the weight of high-income households. Modern studies for the US tend to analyze such hypothesis less often, but some studies still find significant influence from unions (Warner & Hebdon, 2001; Levin & Tadelis, 2005) or high-income households (Warner & Hefetz, 2002). Only Miralles (2006) analyzes the influence of interest groups on service delivery choices in any European country, and he finds that the relative strength of industrial users influences privatization.

The hypothesis of interest group influence is usually validated when a broad range of services is analyzed. In fact, among the studies that consider a broad range of services, only Benton & Menzel (1992) and Hebdon & Jalette (2006) do not find a significant influence from low-income households and unions, respectively, on service delivery choices. In general terms, this makes sense since these groups should focus on the whole activity of the local government.<sup>11</sup>

Additionally, the influence of interest groups seems to be particularly high when small municipalities are included in the sample. Indeed, local governments in small municipalities are particularly vulnerable to pressures coming from interest groups. In fact, among those studies that test such hypotheses and include small municipalities in their samples, only Walls, Macauley & Anderson (2005) do not find the expected relationship significant.

Finally, it must be said that some studies for the US analyze other aspects related to the political process, such as the influence of the type of local government structure (that is, whether the policy-maker is elected or appointed) on service delivery choices. However, only a small number of these studies find some evidence in favour of such an influence. On the

other hand, Lopez-de-Silanes, Shleifer & Vishny (1997) test the hypothesis that political patronage affects service delivery choices, that is, the hypothesis that politicians obtain the support of public employees when production of services is done internally. In this sense, they find that state laws that impose accountability requirements in contracting for personnel encourage privatization. However, later studies (Kodryzcki, 1998; Walls, Macauley & Anderson, 2005; Zullo, 2005) that test this hypothesis do not confirm these results.

### **3.4. Ideological attitudes**

The influence of the ideology is usually captured through the percentage of left-wing (or right-wing) votes in municipal elections. It is generally expected that there will be a negative relationship between privatization and the percentage of left-wing votes. The ideological attitude of the local population is found to be moderately significant in very few studies. In fact, one might say that the only systematic result in the empirical literature is the lack of a systematic relationship between local privatization and ideology. This result is consistent with the argument that local governments are guided by pragmatic rather than ideological motivations.

It is worth noting here that most tests of the influence of ideology have been carried out in the nineties. It can further be expected that what influence there is should be lower for small municipalities, where personal interaction between politicians and citizens is crucial. Nonetheless, we are not able to draw any robust conclusion, as a large portion of studies considering the influence of ideology includes small towns in their samples.

Among the studies for the US, ideology is found to be a relevant explanatory factor of privatization in the works by Dubin & Navarro (1988), Walls, Macauley & Anderson (2005) and Zullo (2005) for solid waste collection. Among the studies of European countries, a similar result is obtained by Dijkgraaf, Gradus & Melemberg (2003) for solid waste collection.<sup>12</sup>

#### **4.Discussion: A methodological note**

In the review of the literature considering factors explaining local privatization, the most systematic pattern that we have found is the low explanatory power of the empirical analyses. One possible explanation of this general result is that most of the studies do not analyze, in fact, the factors that influence privatization choices. Overall, the dependent variables do not capture the move from public to private; rather, they indicate only whether production is public or private in the year of data collection. Thus, these are static models where the production form in year  $x$  is associated to the value  $x$  of some explanatory variables in that same year.

A cross-sectional estimation for the production form can show correlations between the production form in the period analyzed and the corresponding explanatory variables. However, this type of estimation do not allow once to infer results with regard to motivations for privatization since such choice was made before the period in which data for explanatory variables were collected.

An example can help to clarify this point. Several studies include the weight of public employees as a possible explanatory factor of local service delivery choices. In fact, it is clear that privatization and the size of the public payroll must have a negative correlation. However, while privatization certainly explains reduced employment in the public sector, the converse, which has been frequently assumed, is not true. This misunderstanding takes place in several studies that fail to take into account the dynamics of the considered empirical relationships; data on public employees refer to the year when the study is undertaken, while the decision to privatize was made in some previous year. Hence, since there was privatization, the size of public employment decreased.

Furthermore, it is generally accepted that local governments have limited capability to make discretionary decisions about production form in the years after privatization has been

implemented. Several reasons explain the inertia in local government choices about production form, such as the legal duration of a contract, difficulties in breaking up the *statu quo*, difficulties of re-internalizing production or finding alternative external providers, and so on.<sup>13</sup>

All this goes to show that analyzing the correlation between the production form and explanatory factors in period  $x$  is very different from understanding why the local government made the decision to privatize in period  $x - n$ .<sup>14</sup> Indeed, it should not be expected that fiscal restrictions in period  $x$  or labour factors in period  $x$  (and so on) explain decisions made in the period  $x - n$ . This shortcoming of the empirical analyses affects all the studies considered, except the works of Chandler & Feuille (1994), Bel & Miralles (2006) and Miralles (2006). Hence, this flaw is among the likely reasons why empirical evidence for factors explaining local privatization is still rather disappointing.

## **5. Concluding remarks**

In this paper, we have undertaken a review of the empirical literature examining motivations for local privatization. Most of the studies considered have some shortcomings when analyzing the dynamics of local privatization. Hence, it is difficult to obtain systematic results from this literature. However, the following patterns can be inferred from our review

First, fiscal stress and interest group pressures are especially likely to be considered explanatory factors of local services privatization in early studies devoted to the US that consider a broad range of services. Fiscal stress refers primarily to legal limitations on local tax levels, which are largely a US phenomenon. Political factors are also influential, particularly in small municipalities, but it is difficult to interpret how this influence is transmitted to policy-makers.

Second, the type and range of services considered seems to be the most relevant feature when one seeks to explain differences in results across studies testing the scale economies

hypothesis. The impact of cost considerations is found to be particularly relevant when the exploitation of scale economies is taken together with the transaction costs associated to privatization choices.

Finally, the ideological attitudes of policy-makers do not seem to influence in a systematic way the service delivery choices of local governments.

In short, local privatization seems to be guided by pragmatic rather than ideological motivations. It is not clear what role fiscal restrictions play in this pragmatic approach. Otherwise, it is sensible to argue that motivations linked to cost and political interest play a more or less important role depending on the particular institutional framework of government and the type of service under consideration.

## Notes

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<sup>1</sup> Proposition 13 in California in 1978 is a good example of this. Hoene (2004) contains an analysis on the effects of Proposition 13 on the fiscal regime of cities in California.

<sup>2</sup> Political processes and ideological attitudes were introduced together in the previous section. Nonetheless, the very different nature of the variables used to check these hypotheses makes it advisable to analyze results on political processes and on ideological attitudes in a separate way.

<sup>3</sup> Greene (1996) finds a negative relationship between fiscal stress and privatization.

<sup>4</sup> It must be said that the study of Hebdon & Jalette (2006) includes observations for Canada.

<sup>5</sup> Some studies that analyze just one service also find a significant relationship between fiscal stress and privatization. This is the case in the study of Feldman (1986) for urban buses, and the studies of Hirsch (1995) and Dijkgraaf, Gradus & Melemberg (2003) for solid waste collection. Recall that solid waste collection is one of the most relevant services for a local finance in terms of the expenditures needed to provide the service.

<sup>6</sup> Usually, the variable for demand, which is the most appropriate for testing the scale economies hypothesis, is not available.

<sup>7</sup> Interestingly, results from the works of Warner & Hefetz (2002) and Hebdon & Jalette (2006) imply that suburbs of metropolitan areas privatize more often than core metropolitan cities or rural areas. Levin & Tadelis (2005) conclude that large and urban areas tend to externalize production to private firms more often, while smaller municipalities tend to externalise to public agencies.

<sup>8</sup> Evidence on the scale economies hypothesis is not clear in the works of Chandler & Feuille (1994) for sanitation services, and Miralles (2006) for water services. The latter service could more influenced by density rather than scale economies, while the amount of fixed costs in the sanitation services is low.

<sup>9</sup> A small number of studies also put attention on the weight of sensitive consumers, aside of low-income households, such as elderly people.

<sup>10</sup> Regarding the influence of income per capita on service delivery choices, Boyne (1998) distinguishes between an economic and a political interpretation of the effects related to this variable. Indeed, high-income households can prefer privatization, but at the same time they can more easily afford additional expenditures associated to the externalization of local services production. In any case, the political interpretation seems to predominate in the empirical literature on factors explaining local privatization.

<sup>11</sup> Nevertheless, some studies that focuses on just one service, such as school buses (McGuire, Oshfeldt & van Cott, 1987), solid waste collection (Dubin & Navarro, 1988; Hirsch, 1995), sanitation (Chandler & Feuille, 1994) or water (Miralles, 2006) also find a significant influence of the strength of group interests on privatization. The high economic relevance of all these services could explain this result.

<sup>12</sup> Martínez Rodríguez (2004) and Miralles (2006) obtain mixed results.

<sup>13</sup> Recent studies show that reverse privatization may be an emerging issue in countries like USA (Hefetz and Warner, 2004; Hefetz and Warner, 2006) and Canada (Hebdon & Jalette, 2006). As of now, such a phenomenon does not seem to exist in the European Union.

<sup>14</sup> Additionally, it is worth noting that the years since privatization (n) may be different in each municipality.

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**Table 1. Main characteristics of the studies analyzed**

Study	Country	Year data	Service	Small towns	Fiscal Stress	Scale economies	Interest groups	Ideology
Ferris (1986)	USA	1982	43 services	NO	+	-	(+)	
Feldman (1986)	USA	1980	Urban buses	NO	+	+	0	
Mcguire, Oshfeld & van Cott (1987)	USA	1979-80	School bus	NO	0	+	+	0
Morgan, Hirlinger & England (1988)	USA	1982	56 services	NO	+	-	(+)	
Ferris & Graddy (1988)	USA	1982	Several services (estimated separately)	NO	+	+	(+)	
Dubin & Navarro (1988)	USA	1974-75	Solid waste	NO			+	+
Stein (1990)	USA	1982	64 services (estimated separately)	NO	+	+	(+)	
Benton & Menzel (1992)	USA-Florida	1988-9	76 services	NO	Mixed	-	0	
Miranda (1994)	USA	1982	64 services	NO	+	+	+	
Chandler & Feuille (1994)	USA	1973-1988	Sanitation	NO	0	0	+	
Hirsch (1995)	USA	1980	Solid waste	NO	+	+	+	
Greene (1996)	USA	1988	70 services	NO	-	-	+	
Nelson (1997)	USA	1992	63 services	YES	+	+		
López-de-Silanes, Shleifer & Vishny (1997)	USA	1987	12 services (estimated separately)	YES	+		+	0
Kodrzycki (1998)	USA	1992	Several services	NO	+			
Ménard & Saussier (2000)	France	1993-5	Water	NO				
Warner & Hebdon (2001)	USA-New York	1997	8 service areas	YES	Mixed	0	+	0
Bel & Miralles (2003)	Spain	1979-1998	Solid waste	YES	0	+		0
Warner & Hefetz (2002)	USA	1992-1997	64 services	NO	Mixed		+	
Dijkgraaf, Gradus & Melenberg (2003)	Netherlands	1998	Solid waste	YES	+	+	(+)	+
Ohlsson (2003)	Sweden	1989	Several services	YES		0		0
Martínez Rodríguez (2004)	Spain	2000	Several services (estimated separately)	YES	0	Mixed		Mixed
Walls, Macauley & Anderson (2005)	USA	2001	Solid Waste (recycling, disposal)	YES	0		0	+
Levin & Tadelis (2005)	USA	1997	30 services	YES	0	-	+	0
Zullo (2005)	USA	2002	Several services, solid waste	YES	0			+
Miralles (2006)	Spain	1980-2002	Water	YES	0	Mixed	+	Mixed
Brown, Potosky & van Slyke (2006)	USA	1997	Several services	YES	+	0		0
Hebdon and Jalette (2006)	USA & Canada	2004	Several services	NO	+	Mixed	0	

Note: Symbol '+' implies that the hypothesis tested is not rejected; Symbol '-' implies that the hypothesis tested is rejected; Symbol '0' implies that the variables used for hypothesis testing are not significant; Symbol (+) for the interest group hypothesis implies that the size of public employment is used as a testing variable.