

**COMPETITION OR MONOPOLY?  
COMPARING PRIVATIZATION OF LOCAL PUBLIC SERVICES IN THE U.S. AND SPAIN**

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**Abstract**

Differences in national traditions of public intervention, institutional arrangements, and public service markets make local public services an area of great diversity. In this paper we undertake a comparative study of how local governments arrange for delivery of water and waste services in the U.S. and Spain. We find levels of privatization are higher in Spain than in the U.S. We review organizational reform in the two contexts and compare service delivery data using national surveys from each country. We find lower and less stable privatization in the U.S. stems in part from adherence to public choice emphasis on the benefits of market competition over public monopoly. By contrast, Spanish municipalities reflect an industrial organization approach, and create hybrid public/private firms which benefit from both market engagement and economies of scale available under monopoly production. We conclude that managing monopoly may be more important than competition in local service delivery.

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# **COMPETITION OR MONOPOLY?**

## **COMPARING PRIVATIZATION OF LOCAL PUBLIC SERVICES IN THE U.S. AND SPAIN**

### **1. Introduction**

This paper compares how local governments in the U.S. and Spain arrange for delivery of solid waste collection and water distribution. Although conventional wisdom suggests that privatization is higher among cities in the US, the data show contracting is actually higher among localities in many European countries. For instance, private production of solid waste collection is the form used in most municipalities (between 60% and 80%) in countries like Sweden, Norway, Finland, Denmark and Spain, but by less than half the municipalities in the U.S.. In water distribution, more than 50% of municipalities with population over 10,000 in the United Kingdom, France and Spain have private production (OECD 2000a, OECD 2000b, Bel 2006a), compared to less than 10% of municipalities in the US (Warner and Hefetz 2004).

Frustration with pure public production of local services during the seventies and eighties led to expanded experimentation with privatization of local services in many countries. Contracting out is a form of privatization because the private firm gets residual gains from the service delivery process, even though government retains control over aspects of service delivery (Vickers and Yarrow 1991). Increased reliance on private production of local services has created new sources of discomfort, however. Private production has not proved to be cheaper than public production (Boyne 1998a, Hodge 2000, Bel and Warner 2007). Also, competition failures typically appear as local public service markets are prone to concentration (Sclar 2000). Neither pure public nor pure private production has emerged as a perfect choice. Hence, an increasing number of municipalities are experimenting with mixed forms of production (Warner and Hefetz 2004, 2007, Bel, Hebdon and Warner 2007, Bel 2006a).

We find, privatization has distinct forms in the US and Spain that reflect public sector organization and reform in each country. In the US there is relatively greater emphasis on competitive market approaches. Direct contracting to private firms and mixed public/private contracting within a jurisdiction are used to create a more competitive marketplace for local services. By combining public and private delivery for the same service within the same jurisdiction, US municipalities attempt to maintain competition and public control over service delivery in the local market place (Warner and Hefetz 2007). In Spain, by contrast, there is less emphasis on competition and more on maintaining the benefits of economies of scale (Bel and Costas 2006). This results in new hybrid forms of organization such as public firms and public-private cooperation via firms of mixed ownership (combining public and private ownership within the same firm) that serve the whole jurisdiction.

We argue that greater organization flexibility in Spain provides a more stable market for contracting than in the US. US municipalities engage the market in a more competitive fashion by mixing public and private providers for the same service and reverse contracting (bringing back in house previously contracted services) at a higher rate (Hefetz and Warner 2004, 2007). Spanish municipalities, by contrast, maintain a close interaction with private deliverers through hybrid organizational forms and reverse contracting is almost non-existent.

This paper provides an exploratory analysis of the nature of these differences in public sector organization and reform in the two countries. First, we present a theoretical framework for our analysis. Then we provide an organizational analysis of the nature of hybrid forms of delivery in the U.S. and Spain. This is followed by an analysis of delivery patterns in the two countries using national survey data that show differences in use of pure public and pure private forms of delivery as well as in the use of mixed delivery and reverse contracting. Despite its exploratory nature, the data from the two countries show striking differences.

## **2. Theoretical Framework**

The theory of public choice as articulated by William Niskanen (1971), views the government bureaucrat as a neoclassical actor seeking to maximize public budgets and public power. As such, government service production is expected to be excessive, inefficient and unresponsive to citizen desire for choice. Privatization, in this context is offered as a panacea to break apart government monopoly, promote efficiency through competition, and provide citizens greater choice in a market context. Charles Tiebout (1956) first challenged the notion of public market failure by arguing that, at least at the local government level, a market does exist for public services providing both competitive pressures on local government managers to be efficient, and choice to mobile citizen consumers. Thus, the importance of competitive markets has figured heavily in the U.S. privatization debate (Savas 1987, Eggers and O'Leary 1995).

David Lowery (1998) has challenged the market foundations of public choice arguing that public services are at best quasi-markets with a single buyer (government) and a small set of alternative private producers in any given local market. Elliot Sclar (2000) supports this point both theoretically and empirically. Empirical studies of privatization have failed to find consistent cost savings, and while some attribute this failure to study design, others point to lack of competition, poor contract specification, and principal agent problems as primary sources of failure (Boyne 1998a, Hodge 2000). A meta-analysis of all published econometric studies of privatization and costs in water and waste (Bel and Warner 2007) finds limited support for public choice theory due to lack of competition. They argue industrial organization theories that address the structure of the market, firm and regulatory environment are more effective in explaining lack of cost savings under privatization. Contracting increases separation between ownership and management, and industrial organization gives attention to control mechanisms (through regulations and the operation of capital markets) that help improve the alignment between ownership objectives and management activities (Vickers and Yarrow, 1988). Designing contracts to stimulate dynamic competition and reduce the likelihood of future monopolization is difficult (Laffont and Tirole 1993, Bolton and Dewatripont 2005).

Some argue problems with lack of cost savings are fixable through more sophisticated public management (better contracting, performance management, etc) (Eggers 1997, Savas 2000). We argue the problem lies more deeply in the nature of public service markets. Many public service markets are in fact, natural monopolies characterized by economies of scale. While this may favor private production, as private firms could aggregate service delivery over a range of municipalities (Donahue 1989), it also might favor public monopolies that are in a better position to ensure monopoly rents are redistributed to public benefit rather than private profit. The form

of market governance – competition or monopoly, depends on the frequency of transactions, uncertainty and information asymmetries in the production process, and asset specific investments (Williamson 1999). For public services such as water and waste collection, where asset specificity is high and unique characteristics of local service markets make information critical, monopoly is the most common governance solution. Thus, it is surprising that so much emphasis has been placed on competition in the privatization process in the United States, especially when a look at private contractors in the waste field shows tremendous concentration among private contractors.

Ronald Coase in his article, the Nature of the Firm, published in 1937, introduced the concept of transactions costs to economic analysis. The ‘make or buy’ decision fundamentally rests with the nature of the firm, technology and information. Private sector literature on the ‘make or buy’ decision shows that internal production is often both cheaper and more secure (Nelson 1997, Deloitte 2005). So it is not evident that outsourcing, even to a competitive market, would be more efficient. In fact, studies by Dubin and Navarro (1988) and OECD (2000a) have found that municipal provision is associated with lower costs compared to strictly private markets. Recent studies of municipal provision find no significant differences between public delivery and private delivery for water (Renzetti and Dupont 2003 survey of studies in the U.S., Britain and France) or waste (Callan and Thomas 2001 study of waste in Massachusetts, Bel and Costas 2006 study of waste in Spain).

In this article, we illustrate the differences between the competitive market approach of public choice motivated privatization in the U.S., with the industrial organization approach in Spain building from transaction cost economics that focuses on the nature of the service and the nature of the firm. We describe public service organization and reform and present data on service delivery patterns in the United States and Spain to illustrate these differences.

We hypothesize that lower and less stable privatization in the U.S. stems in part from adherence to the public choice emphasis on the benefits of market competition over public monopoly. By contrast, the Spanish municipalities reflect more of an industrial organization approach, and create hybrid public/private firms which benefit from both market engagement and economies of scale available under monopoly production.

### **3. Public Sector Organization and Reforms**

#### **3.1. Spain – Managing Firms to Achieve Scale Economies**

Local public services in Spain are heavily dependent on municipal provision. National laws require that municipalities provide most local services. This is so even for the smallest municipalities (in terms of population) concerning the most important local services, such as solid waste collection or water distribution.

Within this framework of municipal provision as a general rule, there are diverse organizational forms through which local services are produced and delivered. There exists pure public and pure private production, as well as mixed forms or organization. Pure public

production implies that a public bureaucracy or public unit produces the service in-house. The bureaucracy or the public unit operates under the rules of administrative law.

Pure private production implies that a privately owned firm produces the service. The relationship between the private firm and the public administration is governed by a contract, and rules of private commercial law apply to management and organization within the private firm. Thus, private firms have much more flexibility than public bureaucracies concerning key issues in local services such as work force organization, managers' remuneration, etc.

Most contracts to external suppliers are awarded through competitive tendering; but not all of them, since competitive tendering is not compulsory in Spain (in fact, competitive tendering is not compulsory in Europe, and only was compulsory in the United Kingdom until 1998). Service markets for both water and waste are heavily concentrated (Bel 2006a). In solid waste collection, three holdings (Fomento de Construcciones y Contratas, Ferrovial and ACS-Urbaser) control two thirds of the contracts. In water, two holdings (Aguas de Barcelona and Fomento de Construcciones y Contratas) control three quarters of the contracts.

Besides pure public and pure private production, two other organizational forms are relevant in Spain, as well as in some other European countries (Bel 2006a, OECD 2000a, OECD 2000b): publicly owned firms and mixed public-private firms.

Publicly owned firms (public firms henceforth) are similar to public bureaucracy in the sense that the government has ultimate control over the organization of the production of the service. However, with a public firm the autonomy of managers is much greater. Moreover, public firms are managed and organized under private commercial law rules. This means they have much more flexibility with respect to work force organization, purchases of inputs, etc. Public firms are the organizational form used in many large cities for solid waste collection (e.g. Seville) and water distribution (e.g. Madrid, Seville), as well as in many medium size cities.

Mixed public-private firms (mixed firms henceforth) are firms where ownership is divided between the public administration and the private sector. Usually, the government retains a control stake in the firm, but the firm operates under private commercial law. The private partner tends to be a large firm with a solid position in the market for private production of the particular local service. Under this organizational form, local (or supra-local) governments engage in long term contracts with private firms through joint ventures (Bel 2006a). This represents a way to preserve benefits from scale economies as an industrial organization approach would predict.

Most mixed firms are under the effective control of local governments, since they usually hold half or more than half of the shares. In such cases, day to day operations are usually conducted by the industrial private partner, whereas the government retains control over strategic decisions. In some cases, local governments hold a small fraction of shares in the mixed firm (an important case is water service in the city of Valencia). Here the industrial private partner has more control over all decisions regarding the service, and the local government benefits from easier access to information on the service and on the firm. This allows less costly monitoring, thus reducing transaction costs. It is expected that managers of mixed firms under effective control of local government will give more weight to the objectives of local government and will

give less weight to profit maximization. This is expected on the basis of theoretical literature on partial privatization and on the relationship between partial private ownership and managers' choices (e.g. Matsumura 1998; Matsumura and Kanda 2005, and Claude and Hindriks 2005).

Diversity and flexibility of organizational arrangements is a central feature in the Spanish experience. This is readily seen if we take a closer look at the delivery of water distribution in the five largest municipalities in Spain: Madrid, Barcelona, Valencia, Seville, and Zaragoza. The Canal de Isabel II, a public firm owned by the regional (state) government, is in charge of managing water distribution in Madrid. The private firm AGBAR has delivered water in Barcelona since 1882. A mixed firm, EMIVASA, delivers water in Valencia. This firm is jointly owned by the private firm Aguas de Valencia (80%) and by the municipality (20%). A public firm owned by the local government, EMASESA, is in charge of delivering water in Seville. In house production, through a public unit, is used in Zaragoza. In solid waste collection, among the ten largest cities, six have private production, two have mixed firms, one has public firm, and one has a public bureaucracy.

Mixed public-private market delivery (in the U.S. sense) is not common in Spain. In fact, among European countries, Sweden is the only one in which it is relatively common to find public and private production coexisting in the same jurisdiction. This mixed market delivery (in the U.S. sense) was found in 14 percent of Swedish municipalities in 1997 (OECD 2000a). However, in Spain there are only exceptional examples of mixed public-private contracting. Among the municipalities with more than 20,000 inhabitants, only Parla (Madrid) has public and private production of solid waste collection; and only Calvià and Marratxí (Balearic Islands) have public and private production of water distribution.

Finally, reverse contracting –*returning either to in house production or a public firm*– is not a relevant feature in the Spanish experience (Bel 2006a). In the last decades, few municipalities have brought service delivery back in house, and when it happens, it is usually a transitory phase until new contracting out.

### **3.2 U.S. – Managing Markets for Competition**

U.S. municipalities are not required by law to provide water or waste collection services. Most do, however, and direct public delivery continues to be the most common form, although there has been wide experimentation with contracting. U.S. local governments have a long tradition of contracting out. As new services emerge, they often are provided in the private or non-profit sector before being assumed by the public sector. Contracting out has traditionally been used at the margin, to provide local governments flexibility in the ebb and flow of service demands.

Despite this cyclical experimentation with contracting (Adler 1999), the debate over privatization in the U.S. became more political beginning in the 1980s as contracting out was renamed privatization in US public discourse (Henig 1989-90), although European research finds earlier use of the term privatization (Bel, 2006b). A new survey of alternative service delivery was initiated in 1982 by the International City County Management Association – the professional association of city managers. The 'reinventing government' reforms emphasized

the power of competition to reduce costs, improve efficiency and promote more consumer choice (Osborne and Gaebler 1992). Local governments were anxious to explore alternative service delivery and ICMA data show a slight growth in privatization up to 1997 (Warner and Hefetz 2004). What is striking about the trends data however is that public delivery remains the most common form, and what has grown dramatically, especially in the 1997-2002 period is mixed delivery (Warner and Hefetz 2004, 2007).

What is this mixed delivery in the U.S. context? Mixed production in the U. S. case is at the level of the market, not the firm. While public private partnerships are becoming more common, local governments are reluctant to create hybrid firms (Savas 2000). Instead, local governments mix delivery at the level of the market by using both private contracts and public production for the same service. This is done to help local governments benchmark costs and production processes by maintaining direct involvement in the service delivery process (Miranda and Lerner 1995, Brown et al 2007), or to maintain competition in the local service market through competitive bidding between public and private crews, (Ballard and Warner 2000), or to facilitate public private partnerships in collaborative service delivery where the private partner assumes some aspects of service delivery and the public assumes others (Warner and Hefetz 2007). Mixed delivery helps create competition in the local market (competition between public and private producers), provide local government with complete information on the nature and cost of service delivery and thereby reduce transactions costs, and ensure government capacity to assume responsibility for service delivery in the case of contract failure (Miranda and Lerner 1995). Mixed delivery also is associated with increased attention to citizen satisfaction in the service delivery process (Warner and Hefetz 2007) and this helps ensure service quality.

The benefits of privatization are strongly linked to market competition in the U.S. (Savas 1987, Eggers and O'Leary 1995). However, a key problem with local service markets in the United States is the lack of competitive alternative providers. Sclar (2000) argues that competition necessarily disappears in public service markets. Mixed production is an important source of competition and has been associated by Miranda and Lerner (1995) with lower expenditures. For example, in Lubbock, Texas the city is divided into districts and only a few are bid out and the remainder are provided in house. This ensures competition in the local market – at least between public and private crews (Ballard and Warner 2000). This helps the city maintain a competitive local market in the face of industry consolidation. In waste collection, the industry is now dominated by three major private providers - Waste Management Inc., Allied Waste Industries and Republic Services, but in any particular local market one provider typically dominates.

This focus on competition creates instability in US privatization patterns. Reverse contracting (bringing previously contracted services back in house) is becoming more common in the U.S. Averaged over all governments and all services Hefetz and Warner (2007) found the level of reverse contracting rose from 11% for the 1992-1997 period to 18% for the 1997-2002 period. Reverse contracting is now receiving more attention in the US literature as problems with the instability of contracting are more widely recognized (Ballard and Warner 2000, Hefetz and Warner 2004, 2007, Warner and Hebdon 2001, Warner et al 2003, Hebdon and Jalette 2006, Brown et al 2007).

In the 2002 survey ICMA added a question asking why local managers are reverse contracting. The primary reasons cited by city managers were problems with service quality and lack of cost savings due to the challenges of market management (Warner and Hefetz 2004). Statistical analysis of the survey data shows reverse contracting is associated with problems of transactions costs (monitoring contractors), as well as insufficient competition (Hefetz and Warner 2004, 2007). These analyses also find larger places reinternalize contracts at a higher rate. Larger cities enjoy internal economies of scale that make reverse contracting possible. US experience shows local government managers understand the importance of managing markets in a service delivery reform process defined primarily by competitive approaches.

#### **4. Service Delivery Patterns**

How are these differences in public sector organization and reform reflected in actual service delivery patterns? We analyze differences in service delivery patterns in the U.S. and Spain using data from two national surveys of municipalities in Spain and in the US. The US survey, conducted by the International City/County Management Association (ICMA), is conducted every five years and covers all cities over 10,000 in population and all counties over 25,000 in population. A random sample of one in eight is conducted of cities and counties below 10,000 and 25,000 respectively in population. ICMA respondents are larger on average than US municipalities as a whole and thus more likely to use alternative service delivery. The response rate was 24 percent (1283, 1133 useable) in 2002, 32 percent (1586, 1460 useable) in 1997 and 31 percent (1504, 1444 useable) in 1992. Anova tests show the respondents to the three surveys represent the same population of municipalities as described by population size and per capita income, thus making comparisons over time legitimate. The survey covers 64 different urban services including waste collection and water distribution. The surveys divide service production into three forms: services provided by public employees entirely, service provided by contract only (complete contracts), and mixed public and private production.

The survey of Spanish municipalities was conducted by the Universitat of Barcelona between 2003 and 2005 (more detailed results are presented in Bel 2006a). The survey focused on solid waste collection and water distribution, and it provides information on all the municipalities over 30,000 inhabitants (216), half the municipalities between 10,000 and 30,000 inhabitants (216), and eight percent (124) of the municipalities between 2,000 and 10,000. The Spanish survey divides contracting into five forms: in house (pure public delivery), public firm (public delivery under private law), mixed firm (joint public and private ownership), private production (pure private delivery) and mixed public-private production (splitting service delivery between public and private producers as in the USA). The Spanish survey added a question on reverse contracting to enhance comparability with the ICMA survey design.

Tables 1 and 2 show how solid waste collection and water distribution delivery is delivered in the United States and in Spain. Comparative analysis is limited due to the fact that the survey structures are different in the US and in Spain. However, even though all the data in the surveys are not directly comparable, we believe useful insights can be derived from a careful comparison of the key differences. We see that private production or complete contracts are most common in waste collection in both countries. However, the levels in Spain are much higher than in the U.S. Private production in Spain (equivalent to contracting out in the U.S.) is

the most common organizational form, reaching almost 60 percent of all municipalities, whereas contracting accounts for less than half of municipalities in the U.S. in 2002. Direct public delivery is almost twice as large in the US as in Spain. In-house production is more common in small Spanish towns; the pattern is an inverted U, with higher rates of private production among the medium-sized municipalities, and lowest rates among small municipalities (see Appendix tables and Bel 2006a). This is similar to the US where levels of public production are highest for rural municipalities (see Warner and Hefetz 2003, and Warner 2006 for more detail).

Table 1 Trends in Solid Waste Collection and Water Distribution (percentage), United States 1992-2002

Year	Pure Public Delivery			Mixed Public/Private Delivery			Delivery Contracted Out (Complete Contracts)		
	1992	1997	2002	1992	1997	2002	1992	1997	2002
Res. Waste Collection	46.9	34.9	44.5	9.8	8.0	10.5	43.3	57.1	45.0
Water Distribution	74.6	67.3	75.9	8.7	7.4	14.3	16.7	25.3	9.8

US cities and counties. 1992 N=1444; 1997 N=1460; 2003 N=1133.

Source: Warner and Hefetz (2004), based on ICMA survey data

Table 2 Solid Waste Collection and Water Distribution (percentage), Spain 2003

Municipality (population)	Pure Public Delivery (public bureaucracy)	Mixed Delivery			Private production (contracts)
		Public firm	Mixed firm	Mixed public-private	
Res. Waste Collection (adjusted total)	24.2	12.4	7.0	0.1	56.3
Water Distribution (adjusted total)	27.7	23.9	6.4	0.1	41.8

Municipalities over 2,000 pop. n=540

Source: Based on Universitat of Barcelona survey (Bel 2006a).

Private production of water is much higher in Spain at 42 percent than in the U.S. at just 10 percent. The vast majority of U.S. cities continue with direct public delivery (75 percent) compared to only a quarter of municipalities in Spain.

Not only is the level of private delivery higher in Spain for both water and waste, the use of mixed delivery also is higher. The U.S. governments mix public/private delivery at the level of the market (10 percent in waste and 14 percent in water) whereas Spanish governments' use of mixed market delivery is less than one percent (table 2). Instead, Spanish municipalities are more prone to create public or mixed firms (30 percent of delivery in water and 19 percent in waste). This mixing at the level of the firm is more than twice as high as the mixing at the level of the market found in the U.S. In Spain, public firms and mixed firms are more important than public bureaucracies in water distribution. By mixing at the level of the firm, Spanish municipalities are able to maintain economies of scale and still enjoy the benefits of private delivery. By mixing at the level of the market, U.S. cities are denied that possibility.

The longevity of the ICMA survey enables comparison over time. We see that experimentation with private delivery peaked among U.S. municipalities in 1997 but fell significantly by 2002. At its peak, U.S. contracting in waste was comparable to Spain, but contracting for water was just two thirds the Spanish level. Contracting in the U.S. fell back to its 1992 level in waste, but dropped even lower than the 1992 level in water. This is in stark contrast to the Spanish data where privatization has been increasing. Although the Spanish

survey only covers one point in time, interviewers asked the date of privatization and from those dates we see a trend of increasing privatization of waste collection and water distribution, since the mid 1980s. Table 3 presents the distribution over time of the initial privatization in the municipalities that have private production. Two thirds of the municipalities that privatized waste collection did so since the mid 1980s. Three quarters of the privatization in water has occurred in the last 20 years.

Table 3: Distribution over time of initial privatization in waste collection and water distribution in Spain (percent)

Date of Initial Privatization	Waste	Water
before 1974	15	23
1974-1983	17	4
1984-1993	36	35
1994-2003	32	38
total	100	100

100=all municipalities that indicated date of initial private production (41 percent in waste, 42 percent in water)  
Source: Estimated from data in the Universitat of Barcelona survey.

Another key difference in the U.S. and Spanish privatization experience reflects the stability of contracts. By pairing responses from each ICMA survey, we are able to track the direction of contracting over time. While some governments are newly contracting out a service, others may be reverse contracting (bringing a previously privatized service back in house). About 40 percent of the ICMA sample is the same over both surveys and we see from the paired 1997-2002 data set that reverse contracting averaged 6% for waste collection, and almost twice that for water. See Table 4. For residential solid waste and water distribution, reverse contracting is twice the level of new contracting out. This suggests a large proportion of municipalities experimented with privatization and found the results unsatisfactory. This helps explain the overall reduction in complete contracting and rise in public production. The Spanish 2003 survey asked specifically about reverse privatization and found almost no incidence. Similarly, comparison with an earlier survey of Catalonian municipalities in 2000 shows remarkable stability in privatization.

Table 4. Reverse Contracting and New Contracting Out. (percentage) United States 1997-2002

Service Name	Reverse Contracts	New Contract
Res. Waste Collection	5.6	2.8
Water Distribution	11.2	4.8

Stable contract and stable public are the other choices. All sum to 100% of provision. Based on 480 places responding to both 1997 and 2002 ICMA surveys.

Source: Warner and Hefetz (2004) based on ICMA survey data

Managing competition in local government service markets is difficult. This difficulty is seen in the lower levels of privatization in the U.S. and the greater instability of that contracting. While differences in survey construction prevent further comparative statistical analysis of the data, our prior analysis of differences in local government organization and reform, suggest a partial explanation. While both countries exhibit significant use of mixed or hybrid forms, the Spanish version of mixed delivery at the firm level is much greater than the U.S. mixed delivery at the market level. We believe mixing at the firm level provides benefits of economies of scale

and control that are not enjoyed by U.S. governments that mix at the market level. This may explain why we see a return to pure public production in the U.S. case.

## 5. Conclusion

Our analysis suggests that wider flexibility in the use of hybrid organizational forms in Spain is compatible with a general environment supportive of increased private participation in delivery of local services. Hence, it might well be that introducing more flexibility in organizational forms is also inducing more stability in markets for services where private production has an important role. This could explain one of the most important differences we have found between the recent trends in the U.S. and Spain: whereas reverse contracting is growing in the U.S., so far it has not become an issue in Spain. Hence, the Spanish data suggest that monopoly production with (direct or indirect) public control appears to create a more stable environment for contracting than competitive markets.

U.S. municipal managers play the role of market managers. By relying primarily on competition to ensure efficiency (as argued by Public Choice theory), they miss the benefits of economies of scale that their Spanish counterparts seek to enjoy through use of a wider variety of organizational forms (public firms and mixed firms). Although these new organizational forms are also appearing in the U.S., they are too small in number to be tracked in the ICMA surveys. Undermining the power of public monopoly lies at the core of the privatization agenda in the United States, and competitive markets are seen as a panacea. However, practical experience of local governments attests to the limits of a market management approach and helps explain the instability of contracts in the U.S. and the falling rates of privatization in both waste and water distribution.

Industrial organization approaches have been more influential than public choice theories on European academic analysis and policymaking than in the U.S.. Attempting to capture economies of scale through monopoly service delivery within the whole jurisdiction has been a keystone of the European experience. Hence, mixed organizational forms have put less emphasis on competition between public and private producers, as is happening in the U.S., and more emphasis on maintaining the benefits of economies of scale and reducing the transaction costs involved in interaction between the public and the private sector. By using a larger number of functional forms, the Spanish experience shows greater flexibility in public production, and in the way in which public and private sectors cooperate.

Our analysis raises important concerns for public service reform, and for choices of how cities can effectively engage markets in public service delivery. Recent technological and economic changes have not changed the fact that a monopolistic structure remains in place as a basic feature of many local public services. Therefore, managing monopoly can be as important as managing competition, if not more so. Understanding the flexible nature of the boundary between monopoly and market is a key challenge for policymakers and managers in selecting policies for the delivery of basic city services.

Differences in national traditions of public intervention, institutional arrangements, and municipal environments make local public services an area of great diversity. Future research

requires more comparable data on the hybrid nature of service delivery arrangements so that more complex empirical analyses can be conducted. Comparative international analysis provides both an analysis of these differences and insights into critical factors worthy of more academic attention in the continuing debate on privatization, its benefits and limitations.

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Appendix Table A-1. Solid waste collection (percentage) Spain 2003

Municipality (population)	In house (public bureaucracy)	Public firm	Mixed firm	Mixed public-private	Private production
2,001 -10,000	27.1	13.0	8.2	0.0	51.7
10,001 - 30,000	20.0	9.2	4.3	0.0	66.5
30,001 - 50,000	14.5	18.4	2.6	0.0	64.5
50,001 - 100,000	9.6	11.0	5.5	1.4	72.6
Above 100,000	14.0	17.5	3.5	0.0	64.9
Total (adjusted)	24.2	12.4	7.0	0.1	56.3

Municipalities over 2,000 pop. n=540

Source: Based on Universitat of Barcelona survey (Bel 2006a).

Appendix Table A-2. Water distribution (percentage). Spain 2003

Municipality (population)	In house (public bureaucracy)	Public firm	Mixed firm	Mixed public-private	Private production
2,001 – 10,000	33.7	24.8	5.1	0.0	36.4
10,001 - 30,000	16.5	16.4	6.9	0.5	59.8
30,001 - 50,000	7.9	30.3	14.5	1.3	46.0
50,001 - 100,000	6.8	34.3	15.1	0.0	43.8
Above 100,000	12.3	38.6	15.8	0.0	33.3
Total (adjusted)	27.7	23.9	6.4	0.1	41.8

Municipalities over 2,000 inhabitants. n=548

Source: Based on Universitat of Barcelona survey (Bel 2006a).