

**NEW PUBLIC MANAGEMENT-DELIVERY FORMS,
QUALITY LEVELS AND POLITICAL FACTORS ON
SOLID MANAGEMENT WASTE COSTS
IN SPANISH LOCAL GOVERNMENTS**

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Abstract

The New Public Management have been proposed regarding the most appropriate organisation structure to ensure optimum levels of efficiency and quality in the provision of local public services. However, in recent years, contrary opinions have been expressed, suggesting that this type of organisational structure may incur greater costs. The current economic crisis is increasingly affecting the public sector, and requires a stricter control of deficits, and local administrations are not exempt from these requirements. Accordingly, in this paper we propose an evaluation be made of municipal refuse collection and disposal services to determine which forms of management, together with other factors including quality, political aspects and the socio-economic environment, most contribute to reducing costs. The results obtained for the period 2002-2008 show that collective forms of management, and service provision by the local council, have a greater effect in reducing the costs of this service than does externalisation.

Key words: Local Government, Waste Management, Contracting out, decentralization

JEL classification: H72, H40, C33

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1.- INTRODUCTION

In recent decades, numerous studies have focused on how to achieve greater efficiency in the provision of public services (Boyne, 1996; Hodge, 2000; Bel et al., 2010; among others). Interest in this question has increased further with the current economic and financial crisis, the effects of which on public administration have been mainly reflected via a stricter control of budgets and deficits (López-Hernández et al., 2010). In view of this situation, it is necessary to reopen the debate regarding the search for greater efficiency, with particular emphasis on forms of public management that enable the costs of service provision to be reduced.

In this respect, different theoretical approaches have been described, including Weberian Bureaucracy, the Theory of Public Choice and its expression in now commonly-accepted models such as New Public Management, as well as in more recent models such as Post-NPM (Christensen and Lægreid 2008) and Neo-Weberian Administration (Kulhman, 2010). All these proposals seek to determine, among other aspects, which forms of management can achieve the highest levels of efficiency.

In this study, we aim to determine which forms of management provide optimal levels of cost and quality in the provision of refuse collection and disposal services. The main reason for examining this fundamental service is its high cost for local administrations; for this same reason, it has been the object of many previous studies.

The rest of this paper is structured as follows. In Section 2, we review the principal theories that in one way or another have contributed to the debate on the best organisational structure or type for efficiently managing public services, and we formulate the fundamental hypotheses to be proposed. Section 3 presents a brief review of the main studies that have been made to evaluate waste management cost. The fourth section describes the methodology applied in our empirical study and analyses the results obtained, and in the final section, we present the main conclusions drawn.

2. EMPIRICAL BACKGROUND, THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Various studies have been made to examine the efficiency of waste collection services (Bel et al., 2010). This service is one of the most costly for local authorities and involves considerable complexity. As observed by Bel et al. (2010), various periods can be distinguished among the many studies that have sought to determine the factors concerning efficiency in waste collection services. An initial period was characterised by studies focusing on public-private forms of management, although these were often marred by an absence of high-quality data (Hirsch, 1965; Kitchen, 1976; Kemper and Quingley, 1976; Collins and Downes, 1977; Pommerehne and Frey, 1977 and Collins and Downes, 1977). Most of these studies concluded that externalisation reduces the cost of the service.

The second stage was characterised by an improvement in the variables incorporated into the studies, with the use of a broader time horizon and of a log-linear estimation method

with different specifications (Stevens, 1978; Tickner and McDavid, 1986; Domberger et al., 1986; Szymanski and Wilkins, 1993). In all these studies, the results obtained showed that privatisation reduces the costs of the service.

The most recent stage has featured the appearance of studies in which more sophisticated econometric techniques are used. Some of these studies have applied log-linear estimations with various modifications, introducing panel data methods (Reeves and Barrow, 2000; Callan and Thomas, 2001; Dijkgraaf and Gradus, 2003; Ohlsson, 2003; Dijkgraaf and Gradus, 2007; Bel and Mur, 2009; Bel and Fageda, 2010). Other studies, such as Bae (2010), use a translog regression technique, or Data Envelopment Analysis estimation (Bosch et al., 2000; Worthington and Dollery, 2001). In this latter phase, although the results achieved have been very heterogeneous, a majority of studies have found a positive relation between efficiency and privatisation.

The aim of these studies is to determine which form delivery would obtain higher efficiency costs. In these sense, in the ongoing debate on the optimum size and structure for the organisation of public services, different theories have been proposed, including performance management objectives, the use of indicators and output objectives, increased emphasis on service quality and standard-setting and customer responsiveness (Pollit, 1995; Christensen and Lagreid, 2008). The aim of each proposal is, nevertheless, the same, namely to improve effectiveness and efficiency in the provision of public services.

It used to be held that the larger an organization, the greater the economies of scale would be produced, the more efficient and better coordinated would be the services provided, and the greater would be the facility for distributing services in the public interest rather than for the sake of private gain (Boyne, 1996). In particular, in local administrations, the "big is beautiful" (Weberian Bureaucracy) idea became the predominant form of organisation in the provision of public services. This notion was based on the belief that economies of scale are obtained when an organisation reaches a given size (Goodsell, 1994; Boyne, 1995), and gave rise to the ambition to create ever-larger units, via the consolidation of metropolitan areas or through inter-municipal cooperation, with the goal of making better use of available resources (Boyne, 1995; Bel and Fageda, 2006).

However, the appearance of "public choice" introduced the market perspective into the public sector. Large bureaucracies were criticised for their monopolistic and inefficient nature, and problems of coordination and control were highlighted. These problems were said to arise from the excessive size of organisations, together with the consequent lack of flexibility among centralised public bodies. Thus, it was concluded that there is a size beyond which diseconomies of scale begin to appear, leading to a lack of agility in operations and to inflexibility in decision making (Flynn, 1993). These findings lie at the origin of the New Public Management (NPM) philosophy (Hood, 1991) which was intended to remedy, among other aspects, the problems of large bureaucracies by splitting up organizations, as indicated by Hood (1987), implementing a set of management measures borrowed from the private sector.

The appearance of NPM (Pollitt and Bouckaert 2004; Behn, 2003) has been materialised in various proposals, such as the development of autonomous organizational structures (agencies), the out-sourcing of services (structural reforms and market-related reforms), the development of specific management strategies such as dialogue, leadership training, knowledge or team-based management (cultural managerial tools), the establishment of performance management targets, the use of indicators and output objectives, and increased emphasis on service quality, standard setting and customer responsiveness (Pollit, 1995; Christensen and Læg Reid, 2008), with the aim of improving effectiveness and efficiency in the provision of public services.

Among the proposals concerning organisational structures and processes, and contradicting the main idea present in Weberian Bureaucracy, one of the basic premises of NPM is that, when it exceeds a given size, an organisation should initiate processes of horizontal decentralisation, favouring the creation of agencies, to create local-owned enterprise (LOE), complete contracting out, mixed public/private delivery, or other, decentralized, bodies capable of taking on the task of providing services (Osborne and Gaebler, 1992; Hood, 1995; Bel and Warner, 2008).

According to NPM reforms, bodies that have decentralized the services they provide obtain better results than those that have not, being more flexible and providing a closer, more personalized service (Boyne, 1996). However, some authors have made the criticism that decentralized bodies might be characterized by a lack of coordination and control, and thus obtain worse results than those that do not create subsidiary agencies. The latter views have given rise to a new current of opinion in public management, known as Post-NPM or Neo-Weberian bureaucracy. Post-NPM reforms emphasize objectives shared across organizational boundaries, as opposed to working solely within an organization (NPM philosophy). Post-NPM philosophy, thus, encompasses the design and delivery of a wide variety of policies, programmes and services that cross organizational boundaries (MAC, 2004).

In view of this situation, there is much current debate as to which model of management achieves the highest levels of efficiency in the provision of public services (Andrews et al., 2009; Rosenbloom and Hahm, 2010). To date, conclusive findings have yet to be obtained concerning the existence or otherwise of a relationship between performance and management structures. In fact, prior research has not been able to show conclusively whether there exists a relationship at all between performance and the forms of organization in the public sector (Andrews et al., 2009). The results obtained thus far have been, to say the least, contradictory.

Accordingly, and taking into account the different theoretical approaches described above, the present study presents and tests various hypotheses seeking to contribute evidence that will lead to a better understanding of which forms of management produce higher or lower cost in the delivery of public local services.

Firstly, we examine whether local services should be provided by some type of public organisation. Following Bel and Fageda (2010), we include in this category direct control by the local authority, or action via an autonomous organisation (agency) or public local-owed

enterprise company (LOE). If any of these forms of management were found to produce lower costs, then the postulates incorporated in Weberian Bureaucracy would be fulfilled.

H₁: Public management is associated with lower costs of service delivery

Another of the postulates of Weberian Bureaucracy, and which we seek to test in this study, is that smaller local authorities should choose to amalgamate their activities – through inter-municipal cooperation, mainly using the formula of consortium or mancommunity – in the provision of particularly costly services. This option was examined by Bel and Fageda (2006), who analysed the use smaller authorities might make of inter-municipal cooperation in order to provide local services more efficiently. The main hypothesis considered is that these smaller authorities could make use of inter-municipal cooperation in order to exploit economies of scale (Warner and Hefetz, 2003; Dijkgraaf et al., 2003; Warner, 2006; Warner, 2007; Zullo, 2009). Such an approach could produce lower transaction costs than those arising following privatisation or the in-house provision of services by the local authority. With these considerations in mind, we propose the second hypothesis, as follows:

H₂: Inter-municipal cooperation achieves lower levels of costs, by obtaining economies of scale.

According to NPM, the provision of public services should be oriented toward the application of market techniques (Stark, 2002). A common means of doing so is via the externalisation of public services (Guy, 2000; Kleven et al., 2000; Van Helden and Jansen, 2003). NPM justifies the use of externalisation processes on different theoretical approaches; it has been observed that one reason for adopting externalisation would be to achieve cost reductions and thus greater efficiency (Bel and Fageda, 2010). In this sense, it is argued that when the costs of maintaining the service within the organisation are higher than those involved in externalising it, transaction costs are lower and, therefore, privatisation produces cost savings (Sappington and Stiglitz, 1987). On the other hand, as observed by Bel et al. (2010), although private ownership may create more incentives to reduce costs, such incentives may also lead to a deterioration in the quality of service provided, and so we formulate the following hypothesis

H₃: Externalisation reduces the cost of service provision.

Another factor that should be taken into account in analysing efficiency in the provision of public services is that of quality. As observed by Montesinos and Brusca (2009), the key characteristics to implementing reforms in public management lie in the better use of resources and in achieving higher quality and better environmental management. In this respect, NPM postulates state that the adoption of these measures would produce increased efficiency, productivity and quality. Thus, policies have been implemented to favour the achievement of higher quality services, via what has been termed Total Quality Management (Diefenbach, 2009:899). It has been argued that the adoption of this approach enables improved

organisational efficiency. However, studies of this question have produced differing conclusions (Boyne and Andrews, 2002), and so the sign of this hypothesis, at the outset, remains unclear.

H₄: Raising service quality will have an impact over the costs.

Nevertheless, these are not the only factors that may influence the cost of the services evaluated. Traditionally, studies of this question have examined a set of control variables, spanning social, economic, environmental and political factors that influence the provision of public services (Andrews et al., 2005).

As regards the political factors, different authors have considered that left-wing parties tend to favour greater public spending while right-wing parties are assumed to defend budget reductions (Tuft, 1978; Hibbs, 1987; Seitz, 2000; Tellier, 2006). However, the results published in this respect remain inconclusive. Persson and Svensson (1989) believe that a conservative government might implement higher levels of spending if it expected to lose forthcoming elections, and lower levels when it expected to remain in power. With these considerations in mind, we formulate the following hypothesis:

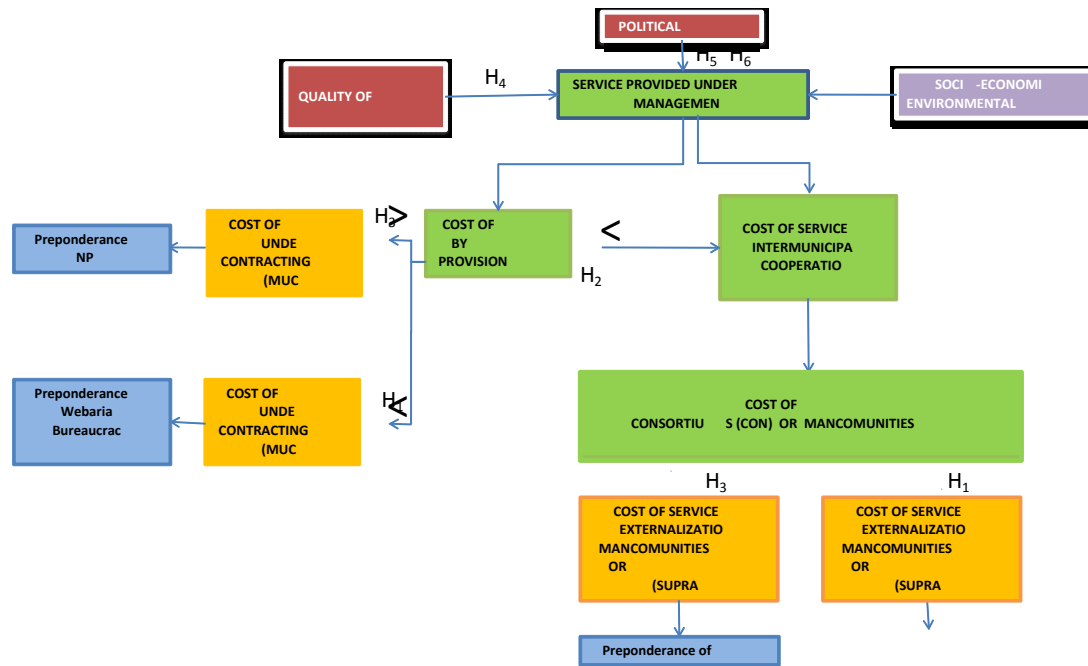
H₅: When the local government is left wing, service delivery costs are higher

In addition to the above factor, we consider whether the existence of a coalition government or of one with an absolute majority might affect levels of cost. Among the various studies that have addressed this question, let us highlight the theoretical model developed by Ashworth et al. (2005), who concluded that the existence of a highly fragmented government favours the possibility of rising expenditure in the long term. Similarly, Hagen and Vabo (2005) observed that governments with a lower level of fragmentation tend to achieve budgetary surpluses, in contrast to governments in which a high level of fragmentation can be observed. On the other hand, Benito and Bastida (2008) reported that when there is less political fragmentation, the expenditure by local bodies is higher. Taking these factors into account, we established the following hypothesis:

H₆: Fragmented local governments are associated with higher costs in service delivery.

In order to illustrate the development of the hypotheses, Figure 1 resumes the delivery forms of the service, their corresponding cost, the potential relationships among them and the postulates regarding the cost comparisons coming from the existent literature.

Figure 1. Synthesis of the hypotheses to be tested



3.- EVALUATING THE EFFICIENCY OF WASTE COLLECTION SERVICES IN SPANISH MUNICIPALITIES

3.1.- Data

After the application of various filtering processes, the sample analysed in our study was finally constituted of 923 Spanish local authorities, each with less than 50,000 inhabitants. Therefore, this is one of the largest such studies to be carried out in evaluating the efficiency of waste collection services in Spain. Of all the local authorities considered, almost 800 had a population of less than 23,000 inhabitants. The relation between the size of the municipality and the form in which services are provided is described in Table 1. This table shows that it is the smaller authorities that present the highest level of cooperation in providing waste collection services, while in larger municipalities there is a greater use of municipal externalisation

Table 1. NPM-deliveery forms and size

	MUD	MUC	MCD	MCC	CON	SUPRA	INTERMUNICIPAL COOPERATION [MCD;MCC;CON;SUPRA]
(POP<5000)	13,6%	22,6%	16,7%	23,5%	14,6%	8,98%	63,8%
(5000≤POP<20000)	18,5%	39,7%	9,4%	14,8%	12,9%	4,8%	41,8%
(20000≤POP<50000)	14,4%	52,5%	6,5%	14,4%	7,2%	5,0%	33,1%

Municipal Direct (MUD); Direct Mancommunity (MCD); Consortium (CON); Mancommunity under Contract (MCC); Supralocal management via provincial or local public companies (SUPRA)Municipal under Contract (MUC),
 Population of 5000 inhabitants or fewer (POP<5000)
 Population of 5001–20,000 inhabitants (5000≤POP<20000)
 Population of 20,001–50,000 inhabitants (20000≤POP<50000)

The following data sources were utilised: to determine the cost of the waste collection service, we sought information from the Directorate General for Financial Coordination with Regional and Local Authorities (DGCFCAL, Spanish Ministry of Finance). This body provided access to databases with information on the functional classification of the expenditure budget for local authorities for the period 2003-08. Specifically, we consulted sub-item 422, Waste Collection. This database has been used in previous studies concerning the efficiency of the waste collection service (Benito et al., 2011).

The second database consulted was the Survey of Infrastructure and Equipment (EIEL) performed by the Spanish Ministry of Public Administrations (MAP). This provided data concerning the service output, the forms of management used by local authorities in providing the service, and the quality achieved. This database has been used in many studies evaluating the efficiency of local public services (Bel et al., 2009; 2010).

Finally, as the above database does not disclose whether the public service has been externalised, a database incorporating the announcements published by local authorities in the Official Provincial Gazettes (BOP) seeking to externalise the services provided was built. This database also includes the year of externalisation, its duration, a description of the conditions applicable and the identity of the organisation awarded the contract.

On the basis of the above information, we created a wide-ranging data base with multiple sources, containing information on a large number of local authorities located in all areas of Spain. The variables included in the study, together with the descriptive statistics employed to analyse the sample and to test the hypotheses proposed, are listed in Table 2.

Table 2.

PANEL A. Descriptive statistics of the continuous variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Tcost (TC)	6447	584558.2	870864.3	60.69	10100000
Tons_bas (y)	6447	17261.08	185058.5	21.8	6077887
Quality (A ₁)	6447	.9361713	.2007240	0	1
Cont/tons (A ₂)	6447	.1742170	.5550345	0	13.40
Ind_i (C ₁)	6447	23.18319	37.44753	0	395
Tour_i (C ₂)	6447	29.08888	155.422	0	3599
Com_i (C ₃)	6447	17.35055	24.00824	0	595

PANEL B. NPM-delivery forms and political factors

Variable	2002	2003	2004	2005	2006	2007	2008
<u>NPM-delivery forms</u>							
MUD (B ₁)	148	148	148	148	148	149	149
MCD (B ₂)	96	96	96	96	96	106	106
CON (B ₃)	140	140	140	140	140	116	116
MUC (B ₄)	338	338	338	338	338	328	328
MCC (B ₅)	151	151	151	151	151	164	164
SUPRA (B ₆)	48	48	48	48	48	58	58
Total	921	921	921	921	921	921	921
<u>Pol. sign (D₁)</u>							
Conserv. (O)	403	403	403	403	403	369	369
Progres. (I)	516	516	516	516	516	550	550
Total	921	921	921	921	921	921	921
<u>Strenght (D₂)</u>							
Coalition (O)	361	361	361	361	361	393	393
Majority (I)	558	558	558	558	558	526	526
Total	919	919	919	919	919	919	919

3.2. – Methodology and variables. The municipal cost estimation model.

Previous studies have shown that the technology providing an accurate description of the refuse collection process can be represented using a Cobb-Douglas production function (Stevens, 1978; Reeves and Barrow, 2000; Bel and Fageda, 2010). This can be estimated from the production function, which requires information on the output (usually, tons of refuse collected) and the essential inputs (usually, drivers, intermediate consumption, transport elements and installations). However, as municipal accounting control systems are not very highly developed, a common problem is that information is lacking regarding the physical units of production and the factors consumed. For this reason, empirical studies seeking to estimate production functions are normally based on surveys. This strategy to obtain data generates information that is valid, but limited because it refers to a given moment of time and only contains a (more or less representative) sample of municipalities.

One way of overcoming the above limitations is to estimate the dual cost function. In fact, the technological parameters of the production function and of its dual cost function are equivalent, depending on the functional form selected and on whether the assumption that the units analysed are cost-minimising agents is met or not. In these circumstances, the total cost will depend on the level of production and on the prices of the inputs. In addition, when input prices do not vary greatly, or when reliable information on them is not available, Cobb-Douglas cost functions are normally estimated; in this case, the only independent variable is the level of production.

In the present study, the two above characteristics are matched: it is a reasonable assumption that there are no great differences among relative input prices, and moreover it is not possible to obtain reliable estimates of these prices. Accordingly, we make initial use of a Cobb-Douglas dual cost function (and thus preserve a technological assumption that it presents the characteristics recommended under production theory). In addition, as we are interested in observing the behaviour of costs from a long term standpoint, the time factor is incorporated into our estimation. Thus, as a starting point, a model of fixed effects is defined in order to symbolise a Cobb-Douglas cost function. This function fits the following expression:

$$\ln (TC_{it}) = \alpha + \beta \ln (y_{it}) + u_i + \varepsilon_{it} \quad (1)$$

where:

TC_{it} is the total cost of the service for municipality i during period t .

y_{it} represents the total tons of waste collected in municipality i during period t .

α is the intercept corresponding to the baseline unit.

u_i represents the fixed effects corresponding to each of the I-1 municipalities.

ε_{it} denotes the error term, which is assumed to be independent and identically distributed.

Having ensured the technological requirements were met, we also wished to determine the extent to which other variables concerning the levels of quality provided, the way in which the service is managed, the economic context and the type of municipal government affect the magnitude of the total cost. Thus, the expanded model we wish to estimate is as follows:

$$\ln (TC_{it}) = \alpha + \beta \ln (y_{it}) + \sum_{k=1}^K \gamma_k A_{kit} + \sum_{l=1}^L \gamma_l B_{lit} + \sum_{m=1}^M \gamma_m C_{mit} + \sum_{n=1}^N \gamma_n D_{nit} + u_i + \varepsilon_{it} \quad (2)$$

where A_{kit} includes two variables indicating the level of quality (K=2): an initial dichotomous variable, obtained from the survey of municipal equipment, in which managers gave their opinion regarding the level of quality of infrastructures (0: poor quality; 1: good quality). To prevent this parameter from depending exclusively on the subjective appreciation of managers, we defined a second continuous variable using the \ln ratio (containers/tons of refuse collected). A local authority that is concerned about the quality of service will provide many refuse containers, so that a refuse collection point will always be in reasonable proximity to the user. On the other hand, the greater the number of containers, the higher the operating cost of the service.

B_{lit} represents five dichotomous variables (l=5) depending on the way in which this service is provided: Municipal Direct (MUD); Direct Mancommunity (MCD); Consortium (CON); Mancommunity under Contract (MCC); Supralocal management via provincial or local public companies (SUPRA). The management form excluded is that of Municipal under Contract (MUC), the most commonly adopted form, and so the sign of the regression coefficients will indicate whether the others present higher or lower costs than this latter form of management.

C_{mit} includes three continuous variables (m=3) representing the importance of industrial, tourism-related and commercial activities in the municipality. These variables account for the socio-economic environment of the service provision.

D_{nit} indicates the political characteristics of the type of municipal government, through the use of two dichotomous variables (n=2). The first variable refers to the political leaning of the governing party (0: right wing; 1: left wing). The second variable is indicative of the type of government (0: coalition government; 1: absolute majority government).

One aspect to be taken into account in the estimation is that a significant proportion of the independent variables are time-invariant or almost time-invariant, which means that models of fixed effects will be inefficient because the “within transformation” ignores the “between variation” and thus does not take all the available information into account. In these circumstances, according to Plumper and Troeger (2007), we could perform pooled OLS regressions, which would involve eliminating the coefficient of fixed effects u_i and the disappearance of the sub indices t from equation (2). Another possibility is, maintaining the panel data structure, to perform estimations using models of random effects. According to Plumper and Troeger (2007), we could thus achieve appropriate estimates for the coefficients of

time-invariant variables, but not for time-variant variables, which would lead us to accept their proposal (estimation using Fixed Effects Vector Decomposition) as a means of achieving satisfactory estimates for all the variables considered. Estimation by this latter method requires the application of an algorithm containing the following three essential steps:

Step 1

An initial estimation is made with fixed effects, after generating demeaned dependent and time-varying independent variables:

$$\ln(TC_{it}) = \sum_{m=1}^M \gamma_m \check{C}_{mit} + \check{u}_t + \check{\varepsilon}_{it} \quad (3)$$

where $T\check{C}_{it} = TC_{it} - \overline{TC}_{it}$; $\check{C}_{mit} = C_{mit} - \bar{C}_{mit}$ and $\check{\varepsilon}_{it} = \varepsilon_{it} - \bar{\varepsilon}_{it}$ reflect the deviations of the variables with respect to the mean. From equation (3), we estimate the individual effect arising from the time-invariant variables, from the mean of the time-varying variables and from the intercept:

$$\hat{u}_t = \ln(\overline{TC}_t) - \sum_{m=1}^M \gamma_m \bar{C}_{mt} - \bar{\varepsilon}_t \quad (4)$$

Step 2

A second regression is defined to determine the dependence of the individual effect \hat{u}_t of the time-invariant variables:

$$\hat{u}_t = \beta \ln(y_t) + \sum_{k=1}^K \gamma_k A_{kt} + \sum_{l=1}^L \gamma_l B_{lt} + \sum_{n=1}^N \gamma_n D_{nt} + h_t \quad (5)$$

Having estimated equation (5), \hat{u}_t is decomposed into one part that is explained by the time-invariant variables and by the residue \hat{h}_t , which describes the unexplained part of the individual effect.

$$\hat{h}_t = \hat{u}_t - \beta \ln(y_t) - \sum_{k=1}^K \gamma_k A_{kt} - \sum_{l=1}^L \gamma_l B_{lt} - \sum_{n=1}^N \gamma_n D_{nt} \quad (6)$$

Step 3

After determining the unexplained part of the individual effect, equation (2) is adapted to introduce \hat{h}_t and to estimate the total cost by means of pooled OLS:

$$\ln(TC_{it}) = \alpha + \beta \ln(y_t) + \sum_{k=1}^K \gamma_k A_{kt} + \sum_{l=1}^L \gamma_l B_{lt} + \sum_{m=1}^M \gamma_m C_{mtt} + \sum_{n=1}^N \gamma_n D_{nt} + \delta h_t + \varepsilon_{it} \quad (7)$$

3.3. Results

The results of the estimates obtained are shown in Table 3. Although many more estimations were made, here only four are presented, which are those enabling us to test the hypotheses proposed in Section 2.

Table 3. Results of the Regression Analysis [dependent variable $\ln(TC)$]

	Pooled OLS reg (1)	Pooled OLS reg (2)	Panel data (random effects) (3)	fixed effects vector decomp. (4)
Intons_b (y)	1.000191 (***)	.7783174 (***)	.5906449 (***)	1.013846 (***)
qualit (A ₁)	.054701 (***)	.0419429 (***)	.0839536 (***)	.0456818 (***)
ln_con/ton (A ₂)	.418973 (***)	.3470823 (***)	.4210444 (***)	.4555547 (***)
MUD (B ₁)		-.3184993 (***)	-.2671473 (***)	-.4227873 (***)
MCD (B ₂)		-.7743398 (***)	-.6068347 (***)	-.8468003 (***)
CON (B ₃)		-.3765715 (***)	-.4659037 (***)	-.4667018 (***)
MCC (B ₅)		-.3939220 (***)	-.3565785 (***)	-.3893578 (***)
SUPRA (B ₆)		-.9359331 (***)	-.6281185 (***)	-1.054926 (***)
Ind_i (C ₁)		-.0012525 (**)	.0031910 (***)	-.0067239 (***)
Tour_i (C ₂)		.0001881 (**)	.0009148 (***)	-.0006761 (***)
Com_i (C ₃)		.0137888 (***)	.0048130 (***)	.0012605 (**)
Polit_si (D ₁)		-.0171788	-.0029069	.0128241
Strenght (D ₂)		-.2107347 (***)	-.0913581 (***)	-.2786144 (***)
Constant (C)	5.280944 (***)	7.127475 (***)	8.751902 (***)	5.924758 (***)
Num. Observ.	6412	6412	6412	6412
Num. Groups	-	-	918	918
R-squared	0.4977	0.5701	0.5316	0.8745

Column 1 shows the representative coefficients of a strictly technological cost function, under which costs depend exclusively on the tons of refuse collected and on the quality level of the service provided. The model is statistically significant and has an R^2 value of almost 0.5. It is interesting to note that all the variables are positive and highly significant, which suggests that the quality of service is positively related to total costs (it would seem that the postulates of Total Quality Management are difficult to introduce in this sector). Moreover, the coefficient of regression associated with the production variable (y) would suggest that, for the sample of municipalities analysed (between 1,000 and 50,000 inhabitants), potential economies of scale are insignificant because the technology presents constant returns to scale.

Column 2 shows the results of estimating a much more general total cost function. It is apparent that the political sign of the party in government has no effect on total costs (what serves reject Hypothesis 5), while the other variables are highly significant. From a technological standpoint, it remains true that increasing quality raises costs, although certain economies of scale would become apparent, with an output/input elasticity of 1.2848 (1/77831).

It would seem, thus, that the introduction of management variables related to the economic environment and to the short-term political situation could give rise to the appearance of economies of scale which, with respect to strictly technological estimations of the service, could remain hidden.

On examination of the forms of management, it seems that all the types considered achieve cost savings in relation to the variable omitted (MUC). These results coincide with those obtained by Bel and Fageda (2010), and contribute to the debate as to whether private management is capable of reducing the cost of public waste management (Bel et al., 2010). The greatest cost saving is achieved when management of the service is performed in the form of supralocal management (SUPRA), which would indicate that projects to minimise costs produce very good results when municipalities combine their resources. In more quantitative terms, in accordance with column 2, supralocal management achieves a total cost reduction of 60.77%, in comparison with municipal management under contract (MUC) (as the coefficient is $\gamma = -0.9359331$, the proportion of the cost of supralocal management with respect to that of municipal management under contract would be $e^{-0.9359331} = 0.3922$, representing a potential cost savings of 60.78%). These results are similar to those obtained by Bel and Mur (2010).

In relation to variables concerning the economic environment, municipalities with an important degree of industrial activity would achieve total cost reductions, but this would not be the case in other municipalities, with important levels of tourism-related or commercial activity. Finally, a predominant position of the governing party would produce a cost reduction of 19% ($e^{-0.2107347} = 0.8099$), in comparison with the costs facing a government in coalition.

The weakness of the results presented in column 2 lies in the fact that they are obtained from a pooled OLS estimate, while the Breusch and Pagan test shows that the data structure would be better expressed using panel data estimates. Accordingly, column 3 presents the results of a panel data estimation by random effects. The variables with significant coefficients remain present, although there is seen to be a change of sign in relation to the variable for industrial activity. In addition, there is a greater (hypothetical) presence of economies of scale depending on production levels. Nevertheless, we must note the weaknesses of these estimates when the data contain time-invariant independent variables.

Finally, column 4 shows the values of the best fit obtained, as evidenced by the higher value of its R^2 . In general, the estimates produced results comparable with the previous ones, thus confirming their robustness, with the sole exception of the change of sign in the indicator of tourism-related activity. A noteworthy fact is the non-existence of technological economies of scale, a finding similar to that reported by Bel and Mur (2010), together with a heightening of the differences between supralocal management and the other types of management structure.

4.- CONCLUSIONS AND DISCUSSION

The present economic and financial crisis continues to have an adverse effect on all levels of public administration, particularly those in the euro zone. Politicians continually

advocate control of public deficits to prevent their economies from being penalised by the markets. In this context, the situation of local authorities is no different. An unfavourable financial condition, characterised by deficits and poor cash management, would lead such authorities to seek alternative means of managing the services they provide in order to improve their overall situation.

This is the context in which the present study must be considered; its aim is to analyse and determine which forms of management contribute to lowering costs in the provision of the public waste management service, one of the most complex services provided and one that imposes considerable costs on local authorities.

The results obtained, for a large sample of Spanish local authorities, with less than 50,000 inhabitants, and for the period 2003-08, show that for this type of municipality mancommunal forms of management, and public management exercised via the local authority, reduce the cost of the service, especially with reference to intermunicipal cooperation, findings that to confirm the validity of the hypotheses 1 and 2. Only, the combination of mancommunal form and privatization options (MCC) and Supralocal management via provincial or local public companies (SUPRA) are able to reduce the cost of service, so that outsourcing reduces the cost when it has previously used the intermunicipal cooperation (Hypothesis 3) Another noteworthy finding is that increasing the quality provided does raise the cost of this service (Hypothesis 4 positive relation with total cost); moreover, political parties that enjoy an absolute majority in local government tend to have lower costs, that to confirm the validity of the hypotheses 6. Furthermore, all the signs and levels of significance were tested for each of the different methodologies employed, thus demonstrating the robustness of the latter.

In short, these results show that some postulates of NPM, such as the externalisation of services, might need to be reconsidered, as their application does not achieve better results regarding the cost of services provided. Post-NPM or Neo-Weberian bureaucracy postulates seem to be corroborated: a lack of coordination and control of externalisation processes may bring about higher costs, which are not addressed in the corresponding contracts. Should a process of recentralising public services be carried out? Or should these be concentrated? The question remains open, but our results, referring to a very extensive time period, show that it is necessary to reconsider NPM postulates, either through generating economies of scale and cost savings, through intermunicipal cooperation for certain types of smaller municipalities, or in the case of larger municipalities, by direct public management, which has been shown to achieve lower costs.

References

- Andrews, R., G.A. Boyne., J. Law and R. M. Walker. 2005. External constraints on local services standards: the case of comprehensive performance assessment in English local government, *Public Administration*, 83, 3, 639-56.
- Andrews, R., Boyne, G., Law, J., Walker, R. 2009. Centralization, Organizational Strategy, and Public Service Performance. *Journal of Public Administration Research and Theory* **19** (1): 57-80.
- Ashworth, J., Geys, B y Heyndels, B. (2005), "Government Weakness and Local Public Debt Development in Flemish Municipalities", *International Tax and Public Financial*, 12: 395-422
- Bae, S. (2010). Public versus private delivery of municipal solid waste services: The case of North Carolina. *Contemporary Economic Policy*.Vol. 28, No. 3, July, 414–428
- Behn, R. 2003. Why Measure Performance? Different Purposes Require Different Measures, *Public Administration Review*, 63 .5, 586-606.
- Bel, G. & X. Fageda, 2006, "Between privatization and intermunicipal cooperation: Small municipalities, scale economies and transaction costs", *Urban Public Economics Review*, 6, 13-31.
- Bel, G. and Fageda, X. (2010), "Empirical analysis of solid management waste costs: Some evidence from Galicia, Spain", *Resources, Conservation and Recycling*, 54: 187–193.
- Bel, G., & Mur, M. (2009). Intermunicipal cooperation, privatization and waste management costs: Evidence from rural municipalities. *Waste Management*, 29, 2772–2778.
- Bel, G. Fageda, X and Warner, M (2010), "Is Private Production of Public Services Cheaper Than Public Production? A Meta-Regression Analysis of Solid Waste and Water Services, *Journal of Public Policy and Management*, 29, 3, 553–577.
- Benito, B. y Bastida, F. (2008), "Política y gestión financiera municipal", *Spanish Accounting Review*, 11: 55-78.
- Benito, B.; Moreno, M^a.R. y Solana, J. (2011): "Determinants of efficiency in the provision of municipal street-cleaning and refuse collection services", *Waste Management*, forthcoming.
- Bosch, N., F. Pedraja and J. Suárez-Pandiello (2000), 'Measuring the Efficiency of Spanish Municipal Refuse Collection Services', *Local Government Studies*, 26 (3), 71–90.
- Boyne, G.A. 1995. Population size and economies of scale in Local Government, *Policy and Politics*, vol. 23, 3, 213-222.
- Boyne, G.A. 1996. Scale, Performance and New Public Management: An Empirical Analysis of Local Authorities Services, *Journal of Management Studies*, 33, 6, 809-26.
- Boyne, G and Walker R. (2002) Total quality management and performance: An evaluation of the evidence and lessons for research on public organizations, *Public Performance & Management Review*. Vol. 26, Iss. 2; pg. 111.
- Callan, S. J., & Thomas, J. M. (2001). Economies of scale and scope: A cost analysis of municipal solid waste services. *Land Economics*, 77, 548–560

- Christensen, T. and Læg Reid, P. 2008. NPM and beyond – structure, culture and demography, *International Review of Administrative Science*, vol, 74: 7-23.
- Collins, J. N., & Downes, B. T. (1977). The effect of size on provision of public services: The case of solid waste collection in smaller cities. *Urban Affairs Quarterly*, 12, 333–347
- Diefenbach, T. 2009. New Public Management in public sector organizations: the dark sides of managerialistic ‘enlightenment, *Public Administration*, Volume 87, Issue 4, pages 892–909, December
- Dijkgraaf, E.; Gradus, R.H.J.M y Melenberg, B. (2003), Contracting out refuse collection, *Empirical Economics*, 28 (3), pp. 553-570.
- Dijkgraaf, E., & Gradus, R. H. J. M. (2003). Cost savings of contracting out refuse collection, *Empirica*, 30, 149–161.
- Dijkgraaf, E., & Gradus, R. H. J. M. (2007). Collusion in the Dutch waste collection market, *Local Government Studies*, 33, 573–588.
- Domberger, S., Meadowcroft, S. A., & Thompson, D. J. (1986). Competitive tendering and efficiency: The case of refuse collection. *Fiscal Studies*, 7, 69–87.
- Flynn, N. 1993. *Public Sector Management*. Hemel Hempstead: Harvester Wheatsheaf.
- Goodsell, C. 1994. *The Case For Bureacracy*, Chatham NJ: Chatham House Publishers
- Hagen, T.P. y Vabo, S.I. (2005), “Political characteristics, institutional procedures and fiscal performance: Panel data analyses of Norwegian local governments, 1991-1998”, *European Journal of Political Research*, 44: 43-64
- Hibbs, A. (1987), *The American political economy and electoral politics in the United States*, Cambridge: Harvard University Press.
- Hirsch, W. Z. (1965). Cost functions of an urban government service: Refuse collection. *Review of Economics and Statistics*, 47, 87–92.
- Hodge, G. (2000). *Privatization: An international review of performance*. Boulder, CO: Westview Press.
- Hood, C .1987. *British administrative trends and the public choice revolution*. In Lane, J., Ed. *Bureaucracy and Public Choice*. London: Sage.
- Hood, C. 1991. A Public Management For All Seasons?, *Public Administration*, 69, 1, 3–19.
- Hood, C. 1995. The New Public Management in the 1980s: variations on a theme. *Accounting, Organizations and Society* 20, pp. 93–109.
- Kemper, P., & Quigley, J. (1976). *The economics of refuse collection*. Cambridge, MA:
- Kitchen, H. M. (1976). A statistical estimation of an operating cost function for municipal refuse collection. *Public Finance Quarterly*, 4, 56–76.
- Kleven, T; Floris, T; Granberg, M; Montin, S; Rieper, O; Valo, S (2000). *Local Government Studies*, Volume 26, Issue 2 Summer 2000 , pages 93 – 116
- Kuhlmann, S. 2010. New Public Management for the “Classical Continental European Administration”: Modernization at the Local Level in Germany, France and Italy, *Public Administration*, Article first published online: 18 OCT 2010, DOI: 10.1111/j.1467-9299.2010.01869.x

- Lopez-Hernandez, A.M, Zafra-Gomez, J.L. and Ortiz-Rodriguez, D. (2010) Effects of the crisis in Spanish municipalities' financial condition: an empirical evidence (2005–2008), *International Journal of Critical Accounting*, forthcoming
- Management Advisory Committee. 2004. *Connecting Government: Whole of Government Responses to Australia's Priority Challenges*. Canberra: Commonwealth of Australia.
- Montesinos, V; Brusca, I, (2009) Towards Performance, Quality and Environmental Management in Local Government: the Case of Spain, *Local Government Studies*, Volume 35, Number 2, April, pp. 197-212
- Ohlsson, H. (2003). Ownership and production costs: Choosing between public production and contracting-out in the case of Swedish refuse collection. *Fiscal Studies*, 24, 451–476
- Osborne, D. and Gaebler, T. 1992: *Reinventing government: How the entrepreneurial spirit is transforming the public sector*, Reading, MA: Addison-Wesley.
- Persson, T. and Svensson, L. (1989), "Why a Stubborn Conservative Would Run a Deficit: Policy with Time Inconsistent Preferences," *Quarterly Journal of Economics*, 104: 325-46
- Peters, Guy. (2000) "Contracts As a Tool for Public Management: Their Strange Absence in North America" in *Contracting in the New Public Management*. Edited by Yvonne Fortin & Hugo Van Hassel. IOS Press, Amsterdam . P. 33.
- Plumper, T. and Troeger, V.E. (2007), "Efficient Estimation of Time-Invariant and Rarely Changing Variables in Finite Sample Panel Analyses with Unit Fixed Effects", *Political Analysis*, 15:124–139.
- Pollitt C. .1995. Justification by Works or by Faith? Evaluating New Public Management, *Evaluation*, 9.2., 133-54.
- Pollitt C. and G. Bouckaert. .2004. *Public Management Reform: A comparative Analysis*, 2nd edn., Oxford: Oxford University Press.
- Pommerehne, W. W., & Frey, B. (1977). Public versus private production efficiency in Switzerland: A theoretical and empirical comparison. *Urban Affairs Annual Review*, 12, 221–241.
- Reeves, E. and Barrow, M. (2000), "The Impact of Contracting Out on the Costs of Refuse Collection Services: The Case of Ireland", *The Economic and Social Review*, 31: 129-150.
- Rosenbloom, D.H. & Hahm, S.D. (2010) "Public Administrative Theory, Performance, and Accountability: Problems and Prospects in Diverse Political Environmental, *Administration & Society*, 42 (S), 4S-10S.
- Sappington, E.D; Stiglitz, J. E. (1987) Privatization, Information and Incentives, *Journal of Policy Analysis and Management* , Summer 6, 4, pg. 567-579.
- Seitz, H. (2000) "Fiscal Policy, Deficits and Politics of Subnational Governments: The Case of the German Laender", *Public Choice* 102:183–218.
- Stark, A. (2002) "What Is the New Public Management?" *Journal of Public Administration Research and Theory* 12:1.

- Stevens, B.J. (1978), "Scale, Market Structure, and the Cost of Refuse Collection", *Review of Economics and Statistics*, 60: 438-448.
- Szymanski, S., & Wilkins, S. (1993). Cheap rubbish? Competitive tendering and contracting out in refuse collection. *Fiscal Studies*, 14, 109–130.
- Tellier, G. (2006), "Public expenditures in Canadian provinces: An empirical study of politico-economic interactions", *Public Choice*, 126: 367-85
- Tickner, G., & McDavid, J. C. (1986). Effects of scale and market structure on the cost of residential solid waste collection in Canadian cities. *Public Finance Quarterly*, 14, 371–393
- Tufte, E.R. (1978), *Political control of the economy*, Princeton University Press, Princeton, N.J
- Van Helden, G. J and Jansen, E. P. (2003) New Public Management in Dutch Local Government. *Local Government Studies* Issue Volume 26 No 2, 68-88
- Warner, M (2006). Cooperación Intermunicipal: ¿un camino hacia la Consolidación Equitativa? (¿o no?), Papel presentado a II Conferencia Internacional de política territorial, Zaragoza, Noviembre.
- Warner, M (2007). Market-based governance and the challenge for rural governments: US trends, *Social Policy and Administration: An International Journal of Policy Research*, forthcoming.
- Warner M, Hefetz A, 2003, "Rural - urban differences in privatization: limits to the competitive state" *Environment and Planning C: Government and Policy* 21(5) 703 – 718
- Warner, M. E., & Bel, G. (2008). Competition or monopoly? Comparing US and Spanish privatization. *Public Administration*, 86, 723–735
- Worthington, A. C. and Dollery, B. E. "Measuring Efficiency in Local Government: An Analysis of New South Wales Municipalities' Domestic Waste Management Function", *Policy Studies Journal*, 29(2), 232-249, 2001.
- Zullo, R (2009) Does Fiscal Stress Induce Privatization? Correlates of Private and Intermunicipal Contracting, 1992–2002", *Governance*, Vol 22, No. 3, July 2009 (pp. 459–481).

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