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THE AUSTRALIAN NATIONAL UNIVERSITY
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**Bureau-Shaping and Contracting Out:
The Case of Australian Local Government**

Stephen Albin

Discussion Paper No. 29, January, 1992



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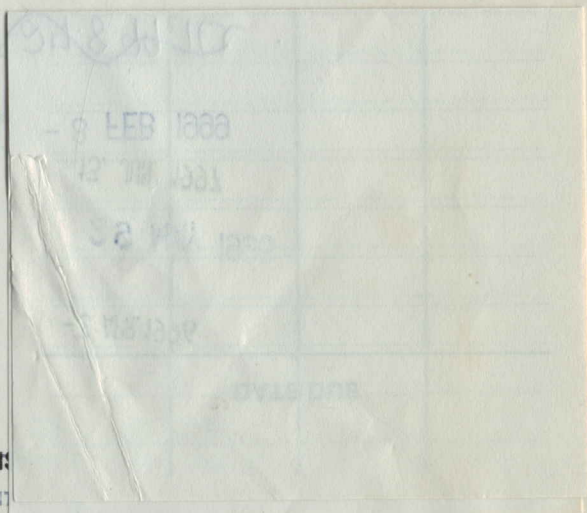


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Abstract

The "New Right" governments of Thatcher and Reagan initiated major changes to government organisational arrangements during their terms in office. The contracting out of services was one of the changes actively pursued by both governments. With the recent release of the Fightback! Program, Dr Hewson and the Liberal Party have placed contracting out high on their policy agenda. The logic which underpins the political appeal of contracting out is straightforward - the introduction of contracting out will allegedly reduce the costs of providing government services and thereby enable politicians to deliver tax cuts to the Australian electorate.

Contracting out is already a widespread practice amongst local governments in Australia. This paper examines 58 metropolitan councils Australia-wide to determine whether contracting out has in fact produced outcomes which make taxpayers better off. The paper finds that contracting out does not necessarily lead to reduced costs of providing government services, lower rate outcomes or an expanded range of services. However, the empirical analysis is consistent with the bureau-shaping account of contracting out proposed by Dunleavy. It indicates that contracting out can lead to distinct outcomes which advantage certain professional groups within the labour force at the expense of blue collar employees.

Introduction

Contracting out has become a convenient and popular arrangement for organising the delivery of local government services. Dr. Hewson and the Liberals are now proposing that contracting out should be more widespread at the Commonwealth level (Hewson, 1989). Their logic is that contracting out will reduce the costs of providing public services and that these cost reductions will be passed on to the electorate in the form of lower taxes. Studies of local government in the United States, the United Kingdom and Australia have examined the effects of contracting out by focussing on the costs of production under contracting and bureaucratic arrangements (Ferris 1986, Savas 1980, Domberger 1986, Rimmer 1988). While the relative efficiency of contracting out is important, from a public policy perspective it is equally important to examine the other outcomes of contracting out. This paper will examine whether contracting out has in fact led to lower rate outcomes or a greater range of services being provided by local government to the taxpayer.

There is an heterodox interpretation of the effects of contracting out, and it too will be discussed in this paper. The radical account of contracting out contends that contracting out is not necessarily in the public interest (Dunleavy 1986, Cawson and Saunders 1983). These scholars claim that the reason why contracting out has proliferated in government departments is that it affords senior managers the opportunity to shape their bureaux into administrative type control agencies, thereby producing outcomes which advantage distinct groups of employees. This paper will determine whether contracting out has produced outcomes which benefit senior managerial and professional staff at the expense of blue collar workers.

The issues in the paper will be presented in four distinct stages. In the first section, political/economic models of bureaucratic production are outlined to establish the contemporary framework for interpreting contracting out as an alternative to government production. In the second section, statistics from a sample of urban councils are used to test econometrically the effects of contracting out: i.e. whether contracting out leads to cost savings and to determine if the consumer of government services (the taxpayer) is better off as a result. Section three uses the

Dunleavy bureau-shaping model as an alternative explanation of the effects of contracting out and uses an econometric analysis to test bureau-shaping against the evidence in Australian local government. Section four, uses a case study of Mosman Municipal Council to illustrate how contracting out can be expected to produce the outcomes identified in the empirical analysis.

Section 1: The Orthodox Logic of Contracting Out

Over recent years contracting out has become a prominent form of organising production in Australian local government.¹ In its latest survey of Australian Local Government, the Evatt Foundation found that 55% of councils contract out at least one service (Evatt Research Centre, 1990, p49). It is impossible to be completely sure why contracting out has become such a common form of organising government production, but the outcomes proposed in orthodox public choice accounts would make it appealing to most taxpayers and politicians. According to the orthodoxy, contracting out is expected to result in lower costs of providing a government service. The lower costs are assumed to produce outcomes which are in the taxpayers' interest, either by enabling governments to reduce the tax burden or to provide more services for any given level of taxes. The economic rationality which surrounds the micro-economic models of contracting out will be discussed below to illustrate why these outcomes would be expected.

Contracting out has been actively pursued by governments since Tullock, Buchanan, Niskanen and others from the public choice school formulated an instrumental framework, examining government failure to provide goods and services in an efficient manner. Public choice scholars claim that market transactions are superior to bureaucratic transfers because bureaux have a tendency to over-supply outputs under government production. The governmental response to this over-supply has been to

¹This paper defines contracting out as when a government agency no longer directly provides the service but supervises and pays another party to carry out the task. This is usually a private sector firm, though in rural areas it may be another local government council.

explore alternative arrangements (such as contracting out) which are more reliant on market transactions for production and service delivery.

In the Politics of Bureaucracy (1965), Gordon Tullock challenged the *status quo* of modern political science and public administration by asking the simple question: "What are the rewards and penalties facing bureaucrats located in a hierarchy and what sorts of behaviour would best describe their efforts to maximise their own utility?" (Buchanan, 1978, p 10). This challenged the Weberian mythology of the faceless bureaucrat following orders from above, executing but not making policy choices, and motivated only to promote the public interest. Tullock's work provided an alternative framework for analysing public choice and government action. Niskanen, in Bureaucracy and Representative Government (1973), elaborated this framework to construct a micro-economic model of government failure, pointing out that production reliant on market transactions would produce outcomes more in line with the taxpayers' (public) interest.

The key to the Niskanen account is that, under bureaucratic transfers, the government will tend to over-supply outputs. Whereas, a profit seeking, market-based monopolist offers units of output for a price, the government supplies output in exchange for a total budget. The relationship between budgets and outputs does not necessarily ensure that bureaux will over-supply outputs. However, when combined with the incentive structures associated with traditional government production, bureaux will tend to maximise outputs to ensure that budgets are fully expended - with little regard for cost efficiency or taxpayer demand.

According to Niskanen, bureaucrats have an incentive to budget-maximise. Individual bureaucrats will seek to maximise their budgets because, almost universally in Western polities, the salaries of officials working in government are directly related to sizes of budgets administered and controlled (see Niskanen, 1973). Securing higher budgets for their departments also improves the prestige of the individual bureaucrats, enabling them to create more jobs for government officials, expand promotion opportunities within the department, and strengthen demand for the department's services. This behaviour is only limited by the constraint that, on average, they must supply the level and quality of service expected by the politicians (also see Niskanen, in IEA 1974, p165).

Politicians regularly face the prospect of re-election and have an incentive to endorse the expansion of budgets and the oversupply of outputs by government departments. Politicians and political parties are driven by electoral competition and will bid up voters' expectations of what governments can do to improve the voters' lot. Once in office, political leaders will manipulate public policy to maximise their chances of re-election (Downs, 1957). "Log-rolling" coalitions push up budgets by endorsing packages of issues which would fail if voted on individually. "Pork-barrel" tactics ensure the funding of local public goods, and inertial incrementalism tends to keep programs going once they have been created. The more public goods or services provided by the government to the electorate the greater the number of constituents who will be satisfied, thereby improving the politicians' chances of re-election. Democratically elected politicians, confronted with the incentive of vote-maximising, do not necessarily reflect true citizen demand preferences for the output of the bureau (Olson, 1965).

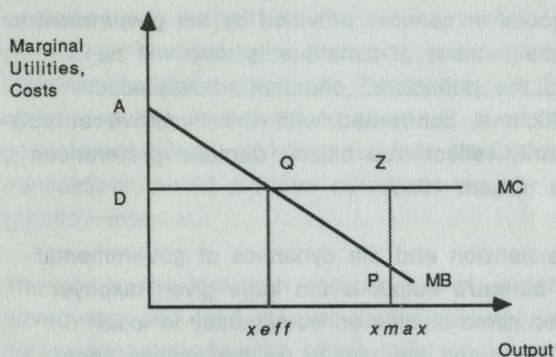
The built in incentives for expansion and the dynamics of governmental bureaucracy ensures that a bureau's output is too large given taxpayer demand. Niskanen conducted some studies on bureaucracy in local government in the United States and the results (in the limiting case) suggest that bureaux could succeed in expanding budgets to twice the size necessary to meet taxpayers genuine demands for public goods (Niskanen, 1975, p162). At this limit, taxpayers end up being no better off than they would be without any public goods. The implication from this is that each public good or service tends to be expanded well beyond any tolerable level of efficiency as defined by the demands of the taxpayers. The formal model of political and bureaucratic action is articulated on the following page.

1.1: The Effects of Government Production and Contracting Out

In Figure 1 below, the Niskanen account of government production is outlined. In the diagram, the efficient government bureau would produce at $(MC=MB)_{x_{eff}}$ at which point the benefits to consumers from the production of a collective good or service is represented by the (consumer surplus) triangle AQD. However, because Niskanen assumes that bureaucrats are budget-maximisers, and hence bureaux have a tendency to maximise output (under circumstances of government production), output

is set at x_{max} rather than x_{eff} . It follows that under government production the benefits accruing to consumers (in this instance, taxpayers) from the provision of the good is reduced (AQD - PQZ). Therefore, for a given demand for a service (as revealed by politicians and taxpayers) the budget and output of a bureau is too large, that is greater than the budget and level of output that maximises the net benefits of the service.

Figure 1 : The Effects of Government Production of a Public Good



(Source : Dunleavy, 1986, p24)

The excess budget of a bureau is limited only by the total demand for a service and by its own cost. With demand given, any alternative source of supply reduces the excess budget of a bureau by permitting the political officials to reduce the budget of that bureau without reducing the level of service. If bureaux act in the way described by Niskanen, there is a waste of resources in producing government services which can only be avoided by changing the bureau's organisational arrangements. Niskanen considers methods such as turning production over to private firms:

"Inefficiency is not a necessary character of the supply of government services. For a given output, costs can be reduced by contracting with private firms ...and reducing the size of the bureau." (Niskanen, 1973, p87)

According to Niskanen, contracting out will ensure that government services are provided in a more efficient manner by reducing the

bureaucrat's budget (and bureaux's output) maximising tendencies. At the organisational level, contracting out will change the incentive structure of the government bureau. Contracting out of government services will reduce the amount of budget under the direct control of the senior bureaucrat, moving a significant share of the budget to private sector contractors. The share of the budget that goes to private contractors will be used more efficiently because contracting out introduces price competition between potential providers of the service. Tenderers will seek to reduce the cost of providing a given level of output, to a cost which will win them the contract (Hartley and Huby, 1985). Therefore, one dimension of the appeal of contracting out is that it enables a bureau to provide the same level of service but at a lower cost.

While the costs of production are fundamental to the Niskanen account, the potential outcomes of changing to contracting out arrangements are equally (if not more) important from a public policy perspective. The Niskanen model shows that the lower costs which will result from contracting out lead to an increase in the consumer surplus, or, in other words, makes taxpayers better off. There are basically two ways that the cost savings can be used to produce outcomes which are in the taxpayers' interest:

- 1: The cost savings can be passed directly on to taxpayers in the form of lower tax imposts than would otherwise have been the case.
- 2: Similarly, the cost savings could also benefit taxpayers indirectly by enabling governments to provide a greater range of public services to taxpayers for a given level taxes.

The costs of providing a government service under contracted-out and government production have been examined in various forms by overseas and Australian scholars, but few have examined whether or not contracting out results in outcomes which benefit the taxpayer.

The following section of this paper will briefly survey some of the methodologies used to examine contracting out, and then go on to specify an empirical analysis which will test whether contracting out has in fact led to lower costs of government production, lower rates, or a greater range of services.

Section 2: An Empirical Analysis of the Orthodox Account.

The public choice account has its own particular intuitive appeal, but it remains to be tested against the empirical evidence for Australian local government. There have been numerous international and Australian studies which examine contracting out as an alternative form of providing collective public goods (cf. Ferris 1984, 1986; Savas, 1980; Domberger 1986, 1988). Ferris, Savas and Domberger, have all used econometric tests to determine whether contracting out leads to cost savings.

In his study of United States local government, Ferris seeks to determine whether contracting out is cheaper than direct municipal service provision. After establishing that contracting reduces costs by approximately 20 percent, he used an ordinary least squares technique to consider which factors (e.g. council population; council expenditure; average income of constituents; and minority groups) influence councils' decision to contract out services. Ferris found that the dominant influence on the council's decision to contract out was whether the cost savings from contracting out would offset the transaction costs associated with changing organisational arrangements.

A similar study was conducted in the United Kingdom by Domberger (1988). He specifies that the cost of providing a government service is a function of output, the price of factor inputs and characteristics of output such as frequency of service (as a proxy for quality of service). Domberger reaches the same conclusion as Ferris with regard to the cost savings under contracting out. The point of interest for this paper from the Domberger study is that he conducts a data envelopment analysis for one service - refuse collection. The reason for this is that the various range of services provided by councils have different administrative and monitoring costs. For example, comparing the costs of road maintenance and construction under contracting out versus municipal production is influenced by exogenous factors - like whether a major freeway is located within the municipality. Refuse collection is a service where the required amount of output can be easily specified, monitoring is relatively inexpensive, and is less likely to be influenced by such exogenous factors. Refuse collection is an attractive empirical indicator of the relative

efficiency of contracting out. Therefore, this paper's analysis will only be conducted with respect to the costs for one service - refuse collection.

The tests for evaluating contracting will be partly concerned with examining costs, but must also be developed to examine other specific outcomes of contracting out. As other authors have not examined the outcomes which benefit the taxpayer, proxies will need to be specified. Firstly, the level of rates they pay for a given level of service would be expected to be lower if their utility was to be enhanced by a council adopting contracting out. Alternatively, the range of services taxpayers receive from government for a given amount of rates would be expected to be greater under contracting out.² Therefore, the cost outcomes, rates outcomes and service outcomes of councils which do and which do not contract out will be compared. The empirical analysis will be specified in the following sections.

2.1 The Data

A data set was especially constructed for this study to examine the outcomes of contracting out. The raw expenditure and labour force data used in the following analysis are compiled from a national survey conducted by the National Local Government Training Council for the Local Government Productivity Council in the July 1991 quarter (which covers the 1990-91 financial year). At the time of the survey all councils involved were assured that the information they provided was confidential and both the Local Government Training Council and the Productivity Council requested that the names of respondents be withheld. The above data has been merged with population and rate revenue data from the first edition of The Australian Local Government Guide 1991 published by the Australian Information Group.

2.2 The Empirical Analysis

Bivariate analysis, involving a number of regressions, will be used to test the orthodox account of contracting out against the evidence provided in Australian local government. Ideally the analysis would be conducted using time series data, however given the limited range of data available,

² Unfortunately, there is no data available that can be used to determine whether taxpayers receive a better quality of service when a council contracts out. Intuitive observation suggests that this is not so.

this was not possible. The regressions have been conducted on 1990-91 data from a representative cross section of fifty eight councils - comparing the outcomes of councils which elect to contract out services and those choosing to continue with municipal arrangements. The council's organisational arrangements, contracting out or municipal, is the independent variable and is expressed as a dummy (1 for contracting out and 0 for municipal arrangements) in all the regressions. The substantive focus of the following empirical analysis is on the outcomes of the different organisational arrangements rather than the process. The outcomes of the different organisational arrangements, costs, rates and services, are the dependent variables in the analysis.

According to Niskanen and others from the public choice school, bureaux oversupply outputs for given community demand and there is a combination of waste and inefficiency associated with the government provision of a good or service. Contracting out is more reliant on market transactions than pure municipal arrangements and should therefore reduce waste and inefficiency. It follows that if waste and inefficiency are reduced as a consequence of contracting out, the cost of providing a service should be less than in councils with municipal arrangements. Therefore, the relationship between the cost of production (for waste management services) and organisational arrangements will be tested to establish whether contracting out achieves this expected outcome. Costs are expressed as the council expenditure per head of population on waste management.

The other outcome of contracting out is that it will increase the consumer surplus and thereby improve taxpayer utility. Two indicators will be included to determine whether taxpayers are better off as a result of a government contracting out services. Taxpayers' utility is assumed to be linked to the amount of rates they pay for a given level of service and/or the amount of services they receive at a given level of rates. The rates variable is represented as the council's rate revenue per head of population.

The diverse range of services between local governments created problems in classifying all services provided by each council in the sample. Therefore, an alternative indicator had to be derived for this variable. The services variable is represented by the proportion of total

expenditure each council spends on functions outside a standard municipal range (waste management; road management; building/health inspection; town planning; community services; and business enterprises). The exact specification of the analysis is:

1) Costs of Production

$$P = x + a_1 C + m$$

2) Rates

$$R = y + a_2 C + m$$

3) Range of Services

$$F = z + a_3 C + a_4 D + m^3$$

where:

x, y, z = the intercept

C = dummy variable for contracting out (1) and municipal council (0) organisational arrangements

P = council expenditure per head of population on waste management services

R = council rates revenue per head of population

F = the proportion of total expenditure spent on functions outside a standard range of municipal services

D = the population of the municipality

The following signs of the coefficients are expected for the outcomes to conform with the orthodox account of contracting out:

1) Costs of Production

$$a_1 = (-)$$

This coefficient will be negative because contracting out should result in lower costs of providing the good or service.

2) Rates

$$a_2 = (-)$$

³ The range of services have not been expressed in per capita terms; therefore the relationship between the number of residents and the range of services will also be tested in this regression.

The cost savings associated with contracting out will enable those councils to confer lower rate level outcomes on their constituents. Therefore, this coefficient should also be negative.

3) Range of Services

$$a_3 = (+)$$

This coefficient will be positive because the cost savings from contracting out should be used by those councils to provide an expanded range of services.

2.3 The Results

The results of the regression are outlined in Table 1 below. The negative coefficient for the cost regression (- 4.504) conforms with the hypothesis, that contracting leads to a lower cost of providing a service. However, with a t-statistic of 1.466, the relationship between contracting out and costs is below the 0.05 level of significance required to have confidence in the finding.

Table 1 : The Results of the Analysis

	intercept	Contracting Out (a1, 2, 3)	R2(adjusted)
Costs	33.622	- 4.504 (1.466)	0.020
Rates*	234.959	54.497 (2.675)	0.097
Services	30.274	-1.217 (0.349)	0.17 **

n =58

NOTE : For more information see the Statistical Appendix

* denotes statistical significance at the 0.05 level

** The relationship between the range of services provided by a council and population is significant at the 0.10 level (1.719). The coefficient (-9.713 E -5) indicates that the smaller the population, the smaller the range of services provided by the council.

The coefficient for rates does not conform with the second hypothesis. The coefficient is positive, *indicating that rates are higher amongst councils that contract out.* This result could be affected by a different

causality to the one specified in the regression. Contracting out may not produce higher rate outcomes; rather, higher rate outcomes may entice councils to contract out to save on the costs of production. It is impossible to determine whether this is the case because this analysis is not undertaken on a temporal sequence of data. However, the statistical significance of the previous cost regression would suggest that if councils did adopt contracting out to lower costs (in an attempt to reduce the rate burden) there is only a slight probability that they would succeed. Therefore, it can be only tentatively inferred from the results of the regression that councils which contract out services may not achieve cost savings to provide lower rate outcomes to their constituents.

In the services regression, the coefficient does not conform with the orthodox account - that contracting out may lead to a wider range of services. The relationship between functions and contracting out is the least statistically significant of all the relationships (t-statistic 0.349). Furthermore, the relationship between the range of services provided by a council and its population was more significant than the council's organisational arrangements.

2.4 Discussion of the Results

The estimated co-efficient for the costs regression indicates that contracting out can result in lower costs in providing a specific service. This conforms with the findings of many similar analyses used to legitimise such privatisation. However, the statistical significance of this finding highlights the point that if a council changes to contracting out, costs will not necessarily be lowered. Furthermore, the consumer of government services does not necessarily benefit from a council contracting out services. *The findings indicate that taxpayers do not benefit from lower rate outcomes, nor do they necessarily receive a greater range of services if their council chooses to contract out functions.* Thus it is not valid to assume that contracting out necessarily makes taxpayers better off.

There may be other factors which affect the outcomes from contracting out. For instance, supplementary analysis not included in the model, highlights that there is a strong relationship between the expenditure and the population serviced by the council. Despite the problems of oversimplifying a complex set of inter-relationships, the findings

demonstrate that the contracting out process cannot be assumed to produce its intended outcomes.

It then needs to be asked why has contracting out become such a popular method of organising government production if taxpayers do not benefit from lower rate outcomes nor do they necessarily receive a greater range of services when their council chooses to contract out functions?

There is a realistic possibility that the contracting out process is captured by senior managers to maximise their own (rather than the taxpayers') utility - the very behaviour which contracting is supposed to restrain. The next section will detail how contracting out can be used by certain groups of senior managers to maximise their utility at the expense of the broader public interest.

Section 3: Contracting Out and Bureau-Shaping

The heterodox explanation used here is more closely aligned with the work of Dunleavy, who views the issue of contracting out in a different light to the orthodox accounts. Instead of it being a mechanism to further the public interest, Dunleavy proposes that senior managers change to contracting organisational arrangements to further their own private interest. In Explaining the Privatisation Boom (1986), he contends that senior managers use contracting out to shape their bureaux into "pure control agencies".

"The bureau-shaping model predicts that policy level staff will try to shift their agency as far as possible to an ideal type of a pure control agency, hiving off implementation functions ... automating routine jobs in order to liberate resources ... and to insulate key decision areas from public scrutiny or participation."

(Dunleavy, 1986, p21)

Dunleavy claims that the welfare of managers is more closely aligned to the status and character of their agency, which is a function of the activities of the agency, than to the size of budgets. Writing about privatisation, he claims that a control agency is one which routes money to subordinate agencies and is not responsible for final implementation.

The notion of control needs a little fine tuning to be appropriate to contracting out of local government services. In a local government context, control of the agency could manifest itself in routing money to private contractors, thereby enabling senior managers to replace highly unionised labour - over whom they have less direct control than professional and supervisory staff. This is generally supported by Dunleavy when he claims that:

"...why should a Director of Technical Services in a local authority care if refuse collection is privatised (contracted out), thereby removing the need for her to manage some of the best organised and most militant public service workers."

(Dunleavy, 1986, p21)

Moving to contract organisational arrangements offers the senior manager the opportunity to reduce the number of labourers and to expand supervisory and professional positions which increase their control and thereby improve the agency's status and character. Herein lies a possible explanation for the findings of the previous empirical analysis.

Senior managers could actually choose to use contracting out to expand the number of professional and supervisory staff in their agency with little regard for cost savings. Under this scenario, the cost savings are not actually redistributed to the consumers of government services, but are spent on shaping their bureau into an administrative control unit.

3.1 An Empirical Analysis of Bureau-Shaping

A bivariate analysis will be used to test whether the Dunleavy bureau-shaping account of contracting out is applicable to Australian local government. It was shown in the earlier analysis that contracting out does not necessarily produce outcomes which are in the public interest, therefore the focus of these tests will be on the outcomes which could be in the senior managers' interest.

As in the earlier analysis, the organisational arrangements (contracting out or municipal) is specified as the independent variable and represented by a dummy variable. The outcomes of contracting are the dependent variables and are specified in the analysis as: the number of engineers

employed by the council; the number of blue collar workers employed by the council; and the size of the labour force.

Dunleavy claims that senior managers use contracting out to shape their bureau into an administrative "control" unit. This process produces outcomes which distinctly advantage certain sectors of the labour force.

In a local government context it is proposed that engineers are the sector of the workforce which benefit most from contracting out. Under the Dunleavy hypothesis, the move to contracting out will require that more council resources be devoted to the supervision of contractors. Engineers are commonly responsible for this task. A regression will be used to test the relationship between the number of engineers and the council's organisational arrangements.⁴ The engineers variable is expressed in the model as the number of engineers employed by the council.

According to Dunleavy, another outcome of contracting out is that routine functions and less controllable manual labour will be hived off. It follows that the blue collar sector of the labour force has the most to lose (namely their jobs) from contracting out. Consequently, the blue collar workers variable is specified in the regression as the number of outdoor workers employed in the council.

As a matter of interest, a variable for the size of the council has been included in the model.

Niskanen claims that the size of the bureau will be reduced as a result of adopting contractual organisational arrangements. Dunleavy's view in this regard is similar. The previous two variables are rather selective and give little indication as to whether the effects of contracting out are specific or generally shared by all employees. Therefore, the labour force variable is included to establish whether it is reasonable to claim that the effects of contracting out are manifest in distinct sectors of the labour force, or whether all employees are affected. The labour force variable is specified as the number of salaried staff employed by the council.

⁴ Unfortunately, there is no information available for salary levels of engineers in contracting out and municipal councils.

The exact specification of the basic empirical analysis is:

1) The Number of Engineers

$$E = a + a_5 C + a_6 D + m^5$$

2) The Number of Blue Collar Workers

$$B = b + a_7 C + a_8 D + m$$

3) The Size of the Labour Force

$$L = c + a_9 C + a_{10} D + m$$

where:

a, b, c = the intercept

C = dummy variable for contracting out (1) and municipal (0) organisational arrangements

E = number of engineers employed by the council

B = number of blue collar workers employed by the council

L = the number of salaried employees in the council

D = the population of the municipality

The following signs of the coefficients are expected if the outcomes conform with the bureau-shaping account of contracting out:

1) The Number of Engineers

$$a_5 = (+)$$

This coefficient will be positive because contracting out will be used by senior managers to increase their control over and supervision of their agency, leading to an increase in the number of engineers employed by the council.

2) The Number of Blue Collar Workers

$$a_7 = (-)$$

⁵ The employment statistics have not been expressed in per capita terms, therefore the relationship between the number of residents and the engineers, blue collar workers and labour force variables will also be tested in these regressions.

This coefficient will be negative because it is expected that contracting out will result in fewer blue collar workers being employed.

3) The Size of the Labour Force

$$a_9 = (-)$$

It is expected that contracting councils would have a smaller labour force in comparison to pure municipal councils and consequently this coefficient should be negative.

3.2 The Results

Table 2 below details the results of the regressions. The coefficient for the engineers regression is positive, conforming with the first hypothesis presented above. The t- statistic also indicates that the relationship between the number of engineers and the council's organisational structure is significant.

Table 2 : Results of the Regressions

	intercept	Contracting Out(a5, 7 ,9)	R2 (adjusted)
Engineers*	-0.054	2.958 (2.225)	0.592
Blue Collar Workers*	42.838	-31.661 (2.124)	0.619
Labour Force	38.624	-4.534 (0.107)	0.584 **

n=58

NOTE : For more information see the Statistical Appendix

* denotes statistical significance at the 0.05 level

** In all three regressions the relationship between population and the three dependent variables is positive and statistically significant at the 0.001 level.

Similarly, the coefficient in the blue collar workers regression is also consistent with the hypothesis presented above. With a t-statistic of 2.124, this finding is also significant within a 95% confidence interval.

The final variable - labour force - has a coefficient which conforms with the hypothesis. However, the relationship is not statistically significant at the 0.05 level of confidence. Despite the fact that the results do not support this specific aspect of the Dunleavy hypothesis, the results do add some substance to his general argument. If the labour force is not necessarily reduced as a result of contracting out and if there are fewer blue collar workers employed in contracting councils, then (all things being equal) contracting out could benefit distinct sectors of the labour force.

3.3 Discussion of the Results

The empirical analysis above offers tentative support to the bureau-shaping account of contracting out. It highlights that contracting out could produce organisational outcomes which advantage distinct groups of employees. For instance, the analysis demonstrates that there are more engineers and fewer blue collar workers employed in councils that contract out services than in councils which do not. Furthermore, contracting out does not necessarily result in a reduction in the total number of council employees, indicating that contracting out does advantage and disadvantage distinct sectors of the council workforce.

The regression presents an explanation for why there has been a proliferation of contracting out in local government. Contracting out may in fact afford the senior managers the opportunity to shape their bureaux into administrative type control units by increasing the number of supervisory and professional staff (in this case engineers) and shedding the less prestigious and less controllable (more unionised?) blue collar workers. While the findings of the earlier analysis indicated that contracting out has not produced outcomes which are in the taxpayers' interest, there is a reasonable case that it does produce outcomes which advantage distinct sectors of the labour force (namely senior managers and professional employees).

While the empirical models in this paper provide broad support for the bureau-shaping account of contracting out, without a temporal sequence of data this analysis alone cannot sufficiently detail the factors which produce such outcomes.

The next section of this paper will examine one council's experiences with contracting out. This will illustrate how and why contracting out can lead to the outcomes demonstrated in the analyses.

Section 4 : Contracting Out from the Organisational Perspective - A Case Study of Mosman Municipal Council

Mosman Municipal Council is the first council in Australia fully to implement competitive tendering for all municipal works functions (roads, waste etc.). In 1960, before the Council began contracting out, all its services were provided to rate-payers through municipal arrangements and the council employed 150 blue collar, "day workers". Today, under competitive tendering arrangements the Mosman Council employs 42 day workers (Mosman Municipal Council, 1991, p1). The Town Clerk's Report to the council which overviewed the 1991 Program Budget and Business Plan, recommended that a study be conducted to determine the feasibility of introducing tendering to all works functions. Subsequently, the Executive Engineer and the Works Engineer were seconded to undertake the project. The findings of their Report provide an illuminating account of why contracting out produces the bureau-shaping outcomes demonstrated by my empirical analysis.

4.1 The Uncertainty of Cost Outcomes Under Contracting Out

The Mosman Engineers' Report, the Introduction of Competitive Tendering, places a great deal of emphasis on the cost savings that should follow from contracting out municipal services. The Report finds that there will be:

".. (a) reduction in support costs of the total value of work of 32.38% for day labour and 4.49% for contract work to 0.15% under the recommended arrangements."

(Mosman Municipal Council, 1991, p 2)

These support cost reductions seem significant. But there are two reasons why these savings may not necessarily lead to lower costs in providing the services under contracting out arrangements. Firstly, the day labour support cost reductions are the result of an off- budget transaction. In other words, when contracting out is introduced the day labour support costs will no longer be the responsibility of the council but

will have to be met by the contractor. Consequently, the day labour support costs will be reduced in one part of the council's accounts but will probably be reflected in a higher total value of the contracts in another part. Secondly, the proportion of contracting support costs of the total value of contracts would be expected to fall when the total value of contracts rises as a result of introducing competitive tendering.

Therefore, while the change to contracting out has been presented in terms of large support cost reductions, there is little evidence to suggest that such a move will necessarily result in lower costs for providing the services to ratepayers in Mosman.

There is, however, evidence in the Report that indicates that cost savings may not necessarily occur with contracting out.

When the change to competitive tendering was first proposed, it was claimed that the cost of implementing the new arrangements would be \$13,821 over two years (1991 and 1992). Already, the current cost of implementing the competitive tendering arrangements stands at \$88,876 (six times the initial estimate!). The Town Clerk explains that:

"The estimated costs of the new Contracts Department from 1990 to anticipated 1992 is \$13,821. Unfortunately, some decisions were taken in relation to the 1991 budget on an ad hoc basis, substantially reducing the level of supervision and the additional costs of implementing the proposed alterations during the current year (1991) will amount to \$88,876. This amount includes salary payable to the new and temporarily created position of Deputy Chief Engineer." (Mosman Municipal Council, 1991, p 2)

At this early stage of implementation it is difficult to determine whether or not contracting out will result in lower costs of providing services to the rate-payers of Mosman than would be the case with the continuation of present arrangements. However, the discussion above tends to support the findings of the empirical analysis, in as much as there is little evidence to suggest that the move to contracting out will necessarily lead to lower cost outcomes.

4.2 Engineers, Blue Collar Workers and Bureau-Shaping

Immediately prior to adopting the new contracting arrangements, Mosman Municipal Council had an Engineers Department that employed 21 full-time staff. This Department was responsible for the administration of and support for all of the Council's municipal works projects. Under the new competitive tendering arrangements the Report recommends that:

"The Council Engineers Department can operate with a core multi-skilled workforce of 10. This workforce is sufficient to address emergencies; however, contractors would be required under specification to assist in such circumstances should the need arise." (Mosman Municipal Council, 1991, p1)

Prima facie, it appears that the move to competitive tendering and the subsequent reductions of staff in the Engineers Department is counter to the bureau-shaping outcomes demonstrated in the models above. In fact the outcomes virtually replicate the scenarios presented in the previous analysis. The new arrangements require that staff resources be re-directed towards the supervision of contractors; consequently a new Contracts Department will be established. This Contracts Department will employ 11 full-time staff (predominantly engineers), the same number that were cut from the old Engineers Department. The net result of creating a Contracts Department is that a new Senior Officer position will be installed to oversee this Department (this is in addition to the temporarily created Deputy Chief Engineers position). Although the salary of the new Senior Officer is not mentioned, the person who fills the position will receive an annual weekend supervision allowance of \$22,000 alone. (Mosman Municipal Council, 1991, p22)

While the Engineers have done well from the introduction of competitive tendering in Mosman Municipal Council, the blue collar workers have not. Although the full impact of the organisational change on the blue collar employees is unavailable from information provided in the report, it does mention that on introduction of competitive tendering eight day labourers were retrenched immediately (Mosman Municipal Council, 1991, p20).

The findings of this case study support (though do not prove) the findings of my empirical analysis. From the evidence presented in the Mosman Engineers' Report, the move to competitive tendering may not actually

lead to savings in municipal works services. Furthermore, the net result of competitive tendering on the Council's employees has been a reduction of at least eight blue collar workers, while the engineers had none of their ranks cut and had at least one more senior management position created for themselves. This also conforms with the outcomes predicted by the empirical model - that is there are more engineers and fewer blue collar workers employed in councils that contract out when compared with councils that continue with municipal arrangements.

5.0 Conclusion

The empirical analysis and organisational case study outlined in this paper lends broad support to the hypothesis of the bureau-shaping outcomes which result from contracting out. The empirical analyses highlighted that changing to contracting out arrangements does not necessarily result in lower costs of providing the service. Nor is it valid to assume that contracting out will benefit the taxpayer (and hence contribute to social welfare) in terms of producing lower rates imposts or an expanded range of municipal services.

If contracting out does not necessarily produce outcomes which are in the taxpayers' interest then why has it become such a popular arrangement for organising local government service provision? Consistent with the Dunleavy bureau-shaping account, the empirical analysis (with support from the organisational case study) indicates that the answer to this question lies in the distinct advantages contracting out offers certain groups of employees. It was shown that adopting contracting organisational arrangements can lead to outcomes which further the interests of senior managers, expanding the number of supervisory and professional staff while reducing the number of blue collar employees.

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