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by

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Optimal Structural Reform in Australian Local Government: An Empirical Analysis of Economies of Scale by Council Function in New South Wales

Brian Dollery, Joel Byrnes and Percy Allan**

Abstract

Amalgamation has always been the preferred means of improving the operational efficiency of Australian local government through structural reform. However, its implicit assumption that 'bigger is better' has scant empirical support, especially regarding the question of scale economies. This paper considers the results of a survey of general managers in New South Wales that sought to solicit opinion on which services should be provided locally and which services should be provided on a regional basis. The results of the survey suggest that respondents felt that only some services would benefit from regional provision thereby not undermining only undermining the argument for amalgamation as a panacea, but also implicitly rejecting the view that scale economies are ubiquitous across all services.

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INTRODUCTION

Australian local government policy makers have traditionally relied on structural reform by means of council amalgamation as their chief policy instrument for enhancing the operational efficiency and effectiveness local authorities (Vince, 1997). Indeed, the past fifteen years have witnessed a wave of municipal amalgamation programs across several Australian local government systems, including South Australia, Victoria, Tasmania and New South Wales, with the prospects of council consolidations presently looming larger in both Queensland and Western Australia.

This approach to local government reform is based on the view that 'bigger is better' in local governance since larger councils are presumed to derive substantial economic benefits from increased municipal size. Dollery *et al.* (2006, pp.146-150) have identified five main reasons for the assumption that larger local authorities are more efficacious typically advanced by Australian advocates of the 'bigger is better' school of thought: Economies of scale; economies of scope; improved local government technical and managerial capacity; reduced administration and compliance costs; and the potential advantages obtaining from a greater coincidence of municipal and ecological boundaries.

In principle, dispute over the purported advantages of municipal size can be resolved by recourse to empirical evidence. Unfortunately almost nothing is known about the empirical characteristics of economies of scope (Dollery and Fleming, 2006), local government capacity, as well as administration and compliance costs, and very little is understood concerning the coincidence of municipal and ecological boundaries (Brunckhorst *et al.*, 2004; Dollery and Crase, 2004). However, a limited but growing literature has sought to address this question in the area of scale economies, with mixed results (Byrnes and Dollery, 2002; Dollery *et al.*, 2006).

By contrast, strong conceptual arguments flowing from the theoretical literature on the economics of fiscal federalism (Oates, 1972), and its derivative logic on the optimal spatial benefit area for public goods and services, indicate that it is implausible that all the disparate Australian council functions will be simultaneously characterized by scale economies. For instance, if different municipal services do possess different cost characteristics, then increasing economies of scale may only apply to some services and not to other functions that may in turn exhibit constant or even decreasing returns to scale.

This suggests that a different approach to structural reform may be warranted that recognises that while some municipal services may indeed exhibit scale economies and should thus be provided through regional shared service arrangements that can reap the monetary benefits of increasing economies of scale, other functions may not yield economies of scale and should therefore best be delivered at the local level. Arguments of this kind support various resource-sharing arrangements between local authorities rather

than the wholesale municipal amalgamation of adjacent constellations of small councils.

An important empirical question underpinning alternative models to council amalgamation that stems from this line of inquiry is to establish which types of local government functions in the Australian municipal milieu manifest significant scale economies. Three main methods of approaching the problem exist in the economics literature – 'engineering estimates', 'survivor tests' and 'existing size distribution tests' – all designed for profit-maximising private firms rather than public agencies (Byrnes and Dollery, 2002). An alternative approach is to seek the opinions of highly experienced officers; in the present context this involved soliciting the views of a sample of current general managers. This paper examines the results of such an exercise undertaken in New South Wales by Byrnes (2005a).

The paper itself is divided into four main parts. Section 2 provides a synoptic overview of the literature on structural alternatives to amalgamation as a means of improving the operational performance of Australian councils. Section 3 briefly considers the meaning of economies of scale and the reasons why this phenomenon may be limited to only some of the services delivered by Australian municipalities. Section 4 outlines and examines the results of a questionnaire survey administered by Byrnes (2005a) to general managers in 28 selected metropolitan, regional and rural councils in New South Wales in late 2005. The paper concludes with a short assessment of the policy

implications of the results of this survey for structural reform in Australian local government.

STRUCTURAL ALTERNATIVES TO AMALGAMATION

A vibrant embryonic Australian literature on alternatives to amalgamation has developed that attests to the creativity and dynamism of Australian local government. This line of inquiry has two distinct strands. On the one hand, scholars have tried to identify current and feasible conceptual models for local councils in Australia that take into account the different economic characteristics of the wide range of services delivered by councils. Work in this area includes 'urban parish models' (Thornton, 1995), 'joint board models' (Shires Association of NSW, 2004), 'ad hoc resource sharing models' (Ernst and Young, 1993), 'regional organizations of councils' (Marshall et al., 2003), 'virtual local governments' (Allan, 2001; 2003), and agency models (Dollery and Johnson, 2005).

Some writers have tried to develop theoretical taxonomies of different institutional models that could be adopted by Australian councils. For example, the Local Government Association of Queensland (2005) distinguished between four different models that have been employed in Australian municipal structural reform: 'Merger/amalgamation', where two or more councils are consolidated into a single larger local authority; 'significant boundary change', where the spatial area of municipal jurisdictions is altered substantially; 'resource sharing through service agreements', in which one

local authority undertakes specific functions for other councils, like waste management; and 'resource sharing thorough joint enterprise', in which municipalities combine their activities in a given service function in order to accrue scale economies, such as record keeping and storage.

In a similar conceptual exercise, Dollery and Johnson (2005) specified seven potentially applicable models for Australian local government. These ranged from existing councils; voluntary arrangements between spatially adjacent councils to share resources on an *ad hoc* basis; more formal Regional Organizations of Councils (ROCs); joint board or area integration models with a shared administration and operations; virtual local government model with a common administrative organization or 'shared service centre'; the agency model with all service functions run by state government agencies; and larger amalgamated councils.

Finally, some scholars have developed more functionally descriptive typologies of local governance. For instance, Katsuyama (2003, p.5) has observed that 'there are a number of alternative service delivery approaches that offer opportunities to reduce costs and improve services'. These alternatives include 'private contracting, mutual aid agreements, shared use of facilities and/or equipment, exchange of services, intergovernmental contracting, and consolidation of selected functions'.

On the other hand, several writers have sought to outline and evaluate actual real-world organizational structures that have already been adopted by

local government in Australia. Efforts along these lines include the Riverina Eastern Regional Organization of Councils (REROC) (Dollery *et al.*, 2004), the Wellington model (Dollery and Ramsland, 2006), and the Armidale Dumaresq/Guyra/Uralla/Walcha Strategic Alliance model in the New England region of northern NSW (Dollery *et al.*, 2005a), and the Gilgandra Cooperative model (Dollery *et al.*, 2005b).

COUNCIL FUNCTIONS AND ECONOMIES OF SCALE

The term 'economies of scale' refers to a decrease in average cost of a homogeneously defined output as the quantity of that output increases. From the perspective of the inputs used to produce this output, the word 'scale' denotes that all input factors can be increased to produce more output, with no restrictions on capital, equipment, land and labour. In the context of the optimal size of municipalities, scale economies typically refer to a decrease in the cost per person for a given amount of a particular service as the population served increases. Thus, if scale economies are present, then the larger the jurisdictional unit, the lower will be the per capita costs of service provision. Economies of scale almost always depend on the technological nature of the production process. In particular, if high fixed costs co-exist with low or constant variable costs, then we can expect significant economies of scale to arise.

It must be stressed that economies of scale refer to the behaviour of cost per unit of unit for a specific well-defined good or service and not the aggregate average costs of all services provided by a given governmental jurisdiction. This confusion has been evident in some Australian attempts to measure the relationship between municipal size and the aggregate per capita costs of total council outlays, most notably by Stephen Soul (2000) (see Byrnes and Dollery, 2002).

In comparison to local government systems in comparable countries, with the sole exception of New Zealand, Australian local government has a pronounced 'services to property' bias in the composition of its functions. However, despite a relatively compressed range of services, Australian councils still provide a comparatively wide diversity of goods and services. Moreover, each of these functions will typically use different production techniques with different cost characteristics. Thus, for any given service, its cost characteristics will be unique. In other words, there is every reason to expect that no uniform pattern of economies of scale will emerge across the range of good and services produced by Australian councils. For instance, it is highly unlikely that the processing of development applications will have cost characteristics even remotely resembling those for garbage collection, public parks, or sewage treatment services (Dollery, 1997).

These obvious arguments have significant ramifications for the debate surrounding council amalgamation. Since all local authorities produce a range of services, only some of which exhibit scale economies, and while amalgamation may capture economies of scale in some service areas, it could

well encounter diseconomies of scale in other functions. Canadian scholar Andrew Sancton (2000, p.74) has summarized this argument by observing that 'there is no functionally optimal size for municipal governments because different municipal activities have quite different optimal areas'.

A second salient argument in this context holds that economies of scale may not be relevant to optimal municipal size in any event, provided provision of the service can be separated from production of that service (the so-called purchaser-provider split), because scale economies only occur during the production phase of service provision. Following this line of argument, councils too small to achieve economies of scale on their own in a given function can still reap the advantages of any scale economies by purchasing the good or service in question from other public agencies or private firms that are large enough production units to secure economies of scale, or by jointly producing the service in co-operation with other municipalities at a regional level. By contracting with commercial firms or other governments, or by entering into shared service arrangements with other councils through regional strategic alliances and other institutional ties, small municipalities can provide the services desired by their constituents and at the same time secure the cost advantages deriving from scale economies in production.

To the extent that these two arguments are valid, scale economies are rendered irrelevant as an economic argument for amalgamation. This is obviously a key factor since scale economies are often portrayed as the main

justification for municipal amalgamation (Witherby *et al.*, 1999). This line of thought also leads naturally to the question of which council services in fact exhibit substantial economies of scale. Put differently, the question can be restated as which council functions should be considered as prime candidates for regional rather than local production? The questionnaire survey by Byrnes (2005a) examined in this paper was precisely aimed at soliciting this type of information from council general managers in New South Wales.

LOCAL AND REGIONAL SERVICE PROVISION

Joel Byrnes was commissioned by the Independent Inquiry into the Financial Sustainability of NSW Local Government to determine the views of senior local government managers from a selection of metropolitan, regional and rural councils in NSW on whether the major functions undertaken by local authorities should have local policy determination, local management and local delivery, regional policy determination, regional management and regional delivery, or some combination of the two. In particular, Byrnes was charged by the Inquiry with answering two related questions: (a) Of the functions that are provided by local government, are some better suited to large or small-scale provision? (b) How can those functions be identified? In response, Byrnes (2005b) produced a research paper entitled *Council Size and Cooperation* for consideration by the Inquiry. This section of the paper considers the methodology and results produced by Byrnes (2005a) in detail. To the best of

our knowledge it represents the first and only attempt to secure the views of general managers on this important issue.

Survey Methodology

Byrnes (2005a) sent an electronic questionnaire survey to a total of 28 NSW councils. Table 1 describes the breakdown of councils by type in the survey:

Table 1. Sample of NSW Councils

Council type	Number
Metropolitan	3
Regional city	5
Rural	20

Byrnes (2005a) received satisfactory responses from 19 NSW councils in the sample of 28 councils, including a single response from the management of a regional organization of councils. Table 2 describes the breakdown of councils by type that responded to the survey:

Table 2. Respondents to Survey

Council type	Number				
Metropolitan	2				
Regional city	3				
Rural	14				

Sample Bias

NSW local government can be split into three groups: Metropolitan, regional and rural councils. Of the 152 councils in existence after the 2004 round of amalgamations had taken place, 32 (21 per cent) were metropolitan, 48 (31.6 per cent) regional and 72 (47.4 per cent) regional (McBride and Moege, 2005,

pp. 4-5). In contrast, the Byrnes (2005a) sample was skewed toward regional and rural councils, with each representing 21.4 per cent and 73.7 per cent of total council numbers respectively, while metropolitan councils only contributed 10.5 per cent of the respondents.

Byrnes (2005a) offered two reasons for this deliberate bias. Firstly, while he conceded that it would have been desirable to conduct a census of all 152 local councils that were in existence at the time the survey was conducted, due to resource constraints and a short time frame, this was not possible. Secondly, Byrnes (2005a) argued that the question at hand was of especial relevance to those councils with recent experience in either amalgamation, the prospect of amalgamation, or participation in a resource sharing arrangement. Put differently, since the recent wave of council mergers in NSW had been biased toward rural and regional councils, so too was the sample of councils included in the survey.

Structure of Survey

The Byrnes (2005a) survey sought the opinion of the general manager of the respondent council (after due consultation with their function managers) on the organizational structure best suited to the management and delivery of a wide range of council services. The survey instrument distinguished between policy determination, the management aspect of a given service area, and the actual delivery of the service. Byrnes (2005a) asked responding general managers to specify which of the eight possible permutations of organizational structures

identified in the questionnaire would be most appropriate for the provision of each function.

By way of example, consider the domestic waste disposal function performed by all NSW councils. In this case, a given respondent chief executive officer may deem domestic waste disposal can most effectively provided by a group of adjacent councils. In other words, 'Regional Policy Determination' represents the most advantageous option. The same manager might contend the various dimensions of domestic waste disposal (i.e. human resources, record keeping, etc.) should be allocated to particular councils in the constellation of co-operating councils; that is 'Regional Management' is the best vehicle. Finally, this manager may believe that the actual staff collecting the waste should be contracted to the individual member councils and thus select 'Local Delivery'. Table 3 indicates how the example of domestic waste disposal could be treated.

Table 3. Service Provision Structures

Options	Example of implementation
 Local policy 	Single council decides how the waste will be collected
determination	(eg. outsourced or in-house), and on which days;
 Local management 	Single council handles the administrative aspects of
 Local delivery 	waste management (i.e. human resources, National
•	Competition Policy requirements);
	Single council delivers the service with staff contracted
	to it, on its terms and conditions.
Local policy	As above except staff are contracted to a region of
determination	councils. Why would a group of councils do this? It may
 Local management 	give them buying power in the market, and staff could be
 Regional delivery 	moved around the region of councils as staffing demands
,	required.
 Local policy 	Single council decides how the waste will be collected
determination	and on which days;
 Regional management 	Administration is handled at the regional level, perhaps
 Local delivery 	in the form of a shared service centre, or by one council
Ž	on behalf of the other councils;
	Single council delivers the service with staff contracted
	to it, on its terms and conditions.
Local policy	Single council decides how the waste will be collected
determination	and on which days;
 Regional management 	Administration is handled at the regional level, perhaps
 Regional delivery 	in the form of a shared service centre, or by one council
	on behalf of the other councils;
	Staff contracted to a region of councils delivers service.
 Regional policy 	The group of councils makes decisions regarding how
determination	the waste will be collected and on which days. Councils
 Local management 	might prefer this option because they can contract-out
 Regional delivery 	the function on a regional basis and therefore have
	greater negotiating power;
	Each council handles the administrative aspects of waste
	management (i.e. human resources, National
	Competition Policy (NCP) requirements) using their own
	staff, perhaps because some councils must report this as
	a category 1 business, while others may not;
	Staff contracted to a region of councils delivers service.
 Regional policy 	The group of councils makes decisions regarding how
determination	the waste will be collected and on which days;
 Local management 	Each council handles the administrative aspects of waste
 Local delivery 	management (i.e. human resources, NCP requirements)
	using their own staff;
	Single council delivers the service with staff contracted
	to it, on its terms and conditions.
Regional policy	The group of councils makes decisions regarding how
determination	The group of councils makes decisions regarding how the waste will be collected and on which days;
determination • Regional management	 The group of councils makes decisions regarding how the waste will be collected and on which days; Administration is managed on a regional basis;
determination	 The group of councils makes decisions regarding how the waste will be collected and on which days; Administration is managed on a regional basis; Single council delivers the service with staff contracted
determination • Regional management	 The group of councils makes decisions regarding how the waste will be collected and on which days; Administration is managed on a regional basis; Single council delivers the service with staff contracted to it, on its terms and conditions.
determination • Regional management	 The group of councils makes decisions regarding how the waste will be collected and on which days; Administration is managed on a regional basis; Single council delivers the service with staff contracted
determination • Regional management • Local delivery	 The group of councils makes decisions regarding how the waste will be collected and on which days; Administration is managed on a regional basis; Single council delivers the service with staff contracted to it, on its terms and conditions.
determination Regional management Local delivery Regional policy	 The group of councils makes decisions regarding how the waste will be collected and on which days; Administration is managed on a regional basis; Single council delivers the service with staff contracted to it, on its terms and conditions. Policy decisions such as how the waste will be collected
determination Regional management Local delivery Regional policy determination	 The group of councils makes decisions regarding how the waste will be collected and on which days; Administration is managed on a regional basis; Single council delivers the service with staff contracted to it, on its terms and conditions. Policy decisions such as how the waste will be collected and when are made by a group of councils;

Source: Byrnes (2005a), Table 1.

Byrnes (2005a) requested responding general managers to follow this process for the eight major functions that most councils provide, decomposed into a series of sub-categories under each major function. These eight major functions derived from the NSW Department of Local Government's (2005) *Local Government Code of Accounting Practice and Financial Reporting Code Update No. 13*, Special Schedule No.1. All NSW councils are obliged to complete this Schedule for their annual financial reporting. Byrnes (2005a, p.5) justified this approach as follows:

A local government general manager suggested this approach when we were designing the survey. We adopted this suggestion because it provides a degree of certainty for those completing the survey. The respondents should be familiar with the nature of each of the categories since they are required to report on the associated revenue and expenses each year.

This approach has the notable merit that each of the functional categories is well defined in an otherwise complex milieu. Had category definition been left to the subjective preference of individual respondents, this might have yielded a bewildering array of differently specified functions that could not be synchronized. However, Byrnes (2005a, p.5) observed that 'the technique did have some unintended consequences'. For instance, 'the sub-category "corporate services" is broad and may have been interpreted by respondents as being a catch all for all administrative functions, including perhaps executive

management which would remain with the host council under all scenarios, though perhaps in a modified format depending on what was outsourced'.

If Byrnes (2005a) is correct in this surmise, then this would be unfortunate because many 'back-office' services, such as general accounting, financial transaction processing, treasury operations, records, procurement, information technology, human resources and legal services, might well display economies of scale and so are prime candidates for resource sharing (through, for example, a shared service centre) or outsourcing (like contracting out to a specialist multi-client provider) (Allan, 2001, pp.39-46). When dealing with corporate services it is important to distinguish between the 'back office' and 'middle office' since the former is the corporate service provider while the latter is the corporate policy decision-maker. When an organization transfers parts of its corporate services to a third party (or parties), it must take care not to lose its middle office that is its effective 'control and command' centre.

In essence, questionnaire itself comprised a single table containing all eight functions and the matrix of provision combinations. The results of the survey are reported in Table 4 in percentage terms. It should be noted that some respondent councils did not express views on all functions largely because some local authorities did not perform certain of the specified functions, like 'water and wastewater delivery' and 'saleyards and markets'.

Table 4. Most Appropriate Provision Structure for Local Government Functions

Function or Activity	Policy Determined:	Locally	Locally	Locally	Locally	Regionally	Regionally	Regionally	Regionally	
	Service Managed:	Locally	Locally	Regionally	Regionally	Locally	Locally	Regionally	Regionally	
	Service Delivered:	Locally	Regionally	Locally	Regionally	Regionally	Locally	Locally	Regionally	
		%								
ADMINISTRATION										
Corporate Support		35	12	6	12	0	18	18	0	
Plant Operating Expenditure		25	5	25	0	0	20	20	5	
Engineering and Works		44	0	11	6	6	28	6	0	
PUBLIC ORDER AND SAFETY										
Fire Protection		0	0	11	0	0	16	37	37	
Animal Control		32	0	11	5	5	16	32	0	
Community Safety		35	6	12	6	0	12	24	6	
Emergency Services		0	0	5	0	0	16	37	42	
HEALTH										
Administration and Inspection		18	0	5	5	5	14	18	36	
Noxious Plants		6	0	17	6	0	6	33	33	
COMMUNITY SERVICES AND EDUCATION										
Child Care		25	0	6	0	0	25	31	13	
Aged Care Services		35	0	6	0	0	24	12	24	
Education		21	0	0	0	0	21	14	43	
HOUSING AND COMMUNITY										
AMENITIES										
Housing		33	7	13	13	0	13	13	7	
Town Planning		47	0	21	5	0	21	5	0	
Domestic Waste Management		5	5	5	37	0	11	21	16	
Commercial Waste Collection		5	5	5	37	0	5	26	16	

Function or Activity	Policy Determined:	Locally	Locally	Locally	Locally	Regionally	Regionally	Regionally	Regionally
	Service Managed:	Locally	Locally	Regionally	Regionally	Locally	Locally	Regionally	Regionally
	Service Delivered:	Locally	Regionally	Locally	Regionally	Regionally	Locally	Locally	Regionally
		%							
Garbage Disposal		5	5	5	37	0	16	0	32
Sanitation Service		16	0	11	16	0	21	11	26
Public Cemeteries		61	0	17	0	0	11	6	6
Public Conveniences		79	0	11	5	0	5	0	0
RECREATION AND CULTURE									
Public Libraries		11	0	11	21	0	5	42	11
Museums		33	0	11	0	0	6	39	11
Public Halls		95	0	5	0	0	0	0	0
Other Cultural Services		42	0	11	5	0	5	21	16
Swimming Pools		79	0	11	0	0	11	0	0
Sporting Grounds		84	0	11	0	0	5	0	0
Parks and Gardens (Lakes)		68	11	11	0	0	11	0	0
WATER AND WASTEWATER		8	0	25	0	0	8	25	33
TRANSPORT AND COMMUNICATION									
Roads M & R		43	10	5	10	0	19	14	0
ECONOMIC AFFAIRS									
Tourism and Area Promotion		11	5	21	0	0	11	26	26
Saleyards and Markets		41	0	0	0	0	18	18	24
Real Estate Development		82	6	6	0	0	6	0	0

Source: Byrnes (2005a), Table 2.

Results

As we can see from Table 4, the results of the survey suggest respondents felt that several functions should be tackled locally on an exclusive basis thus implicitly indicating that scale economies were not present. Put differently, there is a universal impression that the cost characteristics of the eight different functions are not sufficiently similar to warrant a single mode of provision. Accordingly, while regional arrangements were preferred for some functions, other services were designated as best locally handled.

At a more detailed level, more than sixty per cent of all respondents listed the following council functions as most appropriate provided locally (i.e. the 'locally, locally, locally, option): 'Public Cemeteries'; 'Public Conveniences'; 'Public Halls'; 'Swimming Pools'; 'Sporting Grounds'; 'Parks and Gardens'; and 'Real Estate Development.' Although no other single functional category was selected more often than the fully local provision option, other services tended to follow the regional option. These included: 'Community Services'; 'Fire Protection'; 'Emergency Services'; 'Health Administration and Inspection'; 'Noxious Plants'; 'Museums'; 'Water and Wastewater'; 'Tourism and Area Promotion'; and 'Saleyards and Markets.' In terms of the quadrilateral Local Government Association of Queensland (2005) typology cited earlier, this indicates their perceived suitability for 'resource sharing through service agreements' or 'resource sharing thorough joint enterprise'.

POLICY IMPLICATIONS

Several caveats need to be raised before we consider the policy implications of the Byrnes (2005a) survey. In the first place, as Byrnes (2005a) himself explicitly

recognized, the sample employed was not only comparatively small, but also skewed in favour of non-metropolitan councils as a consequence of resource constraints. While experienced researchers are always forgiving of this ubiquitous pragmatic reality, it would nevertheless have been desirable to sample the full universe of 152 NSW councils. Moreover, if a smaller sample was inevitable due to resource limitations, then this could still have been selected in proportion to the absolute numbers of metropolitan, regional city and rural councils. However, Byrnes (2005a) defence of his sample selection rationale does have merit since the responding general managers would have been acutely aware of the policy issues involved.

Secondly, the questionnaire instrument was fashioned around the eight major functions derived from the NSW Department of Local Government's (2005) *Local Government Code of Accounting Practice and Financial Reporting Code Update No. 13*, Special Schedule No.1 that must be completed annually by all councils. The merits of presenting a set menu of functions to respondents cannot be disputed in the complex operational milieu of contemporary NSW local government. In addition, the familiarity of respondents with Special Schedule No.1 is also a decided advantage in soliciting reliable information. However, it should be noted that the eight functions comprise an uneasy mix of inputs and outputs that could have been presented along different lines.

Thirdly, as we argued earlier, it may be that there was insufficient 'unbundling' of corporate services into its component parts. This may have meant that some opportunities for resource sharing, especially in 'back-office' services, may have been overlooked. The wide range of these kinds of services being shared by the four councils that make up the New England Strategic Alliance of Councils (Dollery *et al.*, 2005a) would seem to

suggest that there is considerable scope for cooperation between councils in such functions as finance and budgets, human resources, information technology, land information and GIS systems, loans and investments, internal audit and risk management, plant and fleet operations, records, regulatory and planning functions, performance review, supply and procurement.

Fourthly, a degree of bias is likely to be reflected in answers to any survey of senior managers about possible organizational changes that would alter the responsibilities, authority and accountabilities of their roles. Nevertheless, this should not be a reason for ignoring their professional opinion since they have a more intimate understanding of the capacity and potential of their organizations than even well informed outside observers.

Finally, it might have been worthwhile to include space in the survey instrument for individual commentary by respondents that could go 'below the surface' of blandly relating function to spatial level of provision. This would have allowed respondents to provide insightful nuances to the answers that are otherwise missing.

However, despite these caveats, the Byrnes (2005a) survey not only represents the first empirical effort in Australia at systematically determining whether functions should be tackled regionally or locally by constellations of councils, and thus constitutes an important initial first step in acquiring this vital information, but it also generated meaning full results that have significant policy implications. As we have seen, the case for local government amalgamation in Australia has historically rested on the presumption that 'bigger is better' in municipal governance in the sense that larger councils can provide municipal services at lower cost. A crucial ingredient in this heroic

assumption is that local government services are typically characterized by scale economies and thus councils with larger population jurisdictions can provide services more cheaply since the scale of their operations is larger.

The results obtained by Byrnes (2005a) suggest that, at least in the majority opinion of sample chief executive officer respondents, this assumption is false; they indicated that only some, but not all services should be provided regionally. Put differently, the results of the survey provide strong ammunition for critics of municipal amalgamation who have argued that co-operative arrangements between spatially adjacent councils should provide those services were scale economies are present and local councils retained for the provision of all other services. It need hardly be added that the data collected by Byrnes (2005a) cannot be regarded as definitive. More empirical research is clearly needed before the issue can be regarded as finally settled.

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