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Policy Analytical Capacity in Changing Governance Contexts: A Structural Equation Model (SEM) Study of Contemporary Canadian Policy Work

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Abstract   Governments face many challenges in maintaining effective policymaking capacity as their governance activities alter and change. The emergence of a gap between government aspirations and street-level conditions for policy workers can lead to an increased likelihood of poor policy outcomes. Maintaining strong policy capacity in such public services is a critical factor in avoiding various kinds of policy failures. Very little large-scale empirical research has been dedicated to the study of contemporary policy work, however, making it difficult to evaluate competing claims about the impact of changing conditions on practices of policy analysis. Using data derived from three large-scale surveys of Canadian policy analysts conducted during 2007 to 2008, this article

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develops and tests several key hypotheses about contemporary policy work and its relationship to policy analytical capacity.

Introduction

Maintaining strong policy capacity[1] in a public service is a critical factor in avoiding various kinds of policy failures and other poor policy outcomes (Anderson, 1996; Fellegi, 1996; Riddell, 2007; Howlett, 2009b). Yet, aside from personal reflections from a handful of present and former senior civil servants, little is known empirically about policy capacity within most governments. This lack of knowledge has contributed to widely disparate assessments of policy capacity status with significant consequences for proposals to reform or alter the organization of policy work.

This article contributes to the development of a more rigorous understanding of policy analytical capacity through the utilization of the first-ever comprehensive survey of the three groups of analysts working in senior Canadian governments: provincial and territorial government employees, federal government employees located in the National Capital Region (NCR) (Ottawa-Gatineau); and regionally based federal government employees. It uses an analysis of variance using ANOVA techniques and develops a structural equation model (SEM) to explore the differences and similarities in policy analytical capacity found in these three sets of policy-oriented government employees.

Background: The Challenge of Policy Analytical Capacity and the Contribution of Policy Analysts

Typically, policy analysis has been portrayed as a rationalistic undertaking consisting of career civil servants objectively presenting information to policymakers or 'speaking truth to power' (Wildavsky, 1979; Radin, 2000). Meltsner (1976) was the first to develop a more multifaceted policy analytical typology, contending that analysts' particular policy analytical style depended on a combination of both political and technical skills which were in turn shaped by a unique combination of education, professional training, beliefs and personal motivations (see also Hoppe and Jeliazkova, 2006; Mayer van Daalen and Bots, 2004; Durning and Osuna, 1994; Jenkins-Smith, 1982; Dluhy, 1981). Mayer (2004) similarly noted 'the variety and multi-faceted nature of policy analysis makes it clear that there is no single, let alone 'one best', way of conducting policy analyses.'

Nevertheless, the variation in policy work is not infinite. Mayer et al. (2004) identified six major clusters of activities that constitute distinct forms of policy

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analytical activity: researching and analyzing, designing and recommending, clarifying arguments and values, providing strategic advice, democratizing policy processes and mediating policy disputes. The exact weight given to each type depends on the characteristics of the policy environment in which analysis takes place.

In one common argument about contemporary analytical activities, the emergence of a 'new governance environment' (Pal, 2001; Savoie, 2003b) in many countries is said to have altered policymaking and policy work and posed significant challenges to policy analytical capacities. This environment is said to involve: (1) a more diverse set of societal-based actors equipped with valuable resources who seek to provide policy guidance to government (Halligan 1995; Koliba and Gradja 2009); (2) the public's declining trust in both politicians and bureaucracies, and a concomitant desire to be more involved in the policymaking process; (3) a general trend towards privatization of operations and program delivery; and finally (4) the development of new localized governance arrangements that emphasize the role of networks (Nicholson 1997; Prince, 2007).[2]

All of these governance trends point to the growing complexity of public policymaking and a shift in fundamental styles of analysis as administrators and analysts are expected to engage in greater consultation, consensus building and public dialogue than previously (Prince and Chenier, 1980; Prince, 2007). Analysts are said to now use a wider set of policy instruments than in the past, particularly procedural ones such as private partnerships, roundtables, and funding arrangements with organized societal groups in their work (Lindquist, 1992; de Bruijn and Porter, 2004; Goldsmith and Eggers, 2004; Howlett and Lindquist, 2004).

All other things being equal, this leaves less space for 'traditional' technical policy analysis or what Mayer et al. (2004) term 'researching and analyzing, designing and recommending, clarifying arguments and values' and suggests a shift towards activities related to 'providing strategic advice, democratizing policy processes and mediating policy disputes' which require a new set of policy analytical capabilities. A new emphasis on public relations, consultations and environmental scans, for example often emerges as the preferred and common mode of policy advice (Peters, 1996; Hoppe, 1999). It might be surmised therefore that the net result of these changes in policy work include not only the erosion of technical policy analysis, but also of long-term policy planning capability, as well as an increase in its level of politicization. This suggests that many states will face or are facing a policy analytical capacity deficit, if not outright decline, as older technical forms of analysis come to be replaced by newer more participatory ones for which they may be ill prepared (Painter and Pierre 2005; Kothari et al., 2009).

However, the empirical basis for such assessments and prognostications is not great. There is a literature examining the changing roles of those engaged in policy work (for example Radin, 2000; Page and Jenkins, 2005; Colebatch and Radin, 2006), but it is largely anecdotal or jurisdictionally specific and focuses almost exclusively upon only the highest level or order of government, typically

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the central or 'national' one (for exceptions see Rieper and Toulemonde, 1997; Segsworth and Poel, 1997; Hird, 2005; McArthur 2007). More and better studies of policy work in different sectors and at all tiers of multilevel governance systems are required if this account of decline and the need for reform in policy analytical capacity and practices is to be validated.

The Canadian Case

The impact of this lack of data on policy analytical practices and capacity in multi-sectoral and multilevel settings is well illustrated by a recent high-level debate in Canada involving the Clerk of the Privy Council, the highest ranking federal civil servant, and a well known national policy research institute over the subject. The very different assessments of the state of Canadian policy work and its policymaking capacity given by the two sides in this debate underscore the need for additional empirical work in order to provide a clearer picture of actually existing conditions and point the way towards any necessary reforms.

In their 2007 report: *A Vital National Institution? What a Cross-Section of Canadians Think about the Prospects for Canada's Public Service in the 21st Century*, the Public Policy Forum (PPF), an Ottawa based think tank, identified declining policy capacity as a critical issue facing the Canadian federal civil service. At a series of workshops held across Canada, they identified a number of recurring themes experts observed in the policy work conducted in the civil service, including: a hollowing out of expertise and competition from other external organizations such as academia, non-government organizations, and think tanks; the development of policy options removed from 'on-the-ground' considerations key to effective implementation; a tendency to equate analysis with short-term reactions to communications crises and dealing with political sensitivities; and an overemphasis on internal performance reporting (Côté et al., 2007). They concluded with a sobering prognosis that an 'unresponsive public service equals an irrelevant public service, and this is more pronounced because the federal public service is less connected to Canadians than provincial and municipal levels of government when it comes to providing services that affect their lives' (p. 8).

In a well publicized rejoinder to the PPF's findings, Kevin Lynch, the then Clerk of the Privy Council and Canada's most senior civil servant, stated that it was a 'misconception' to label Canada's federal public service as broken or out of touch with Canadians. He argued that the job of the public service, and more specifically its policy capacity, was 'to provide governments with well researched, analytically rigorous, unbiased policy options and recommendations' and not make policy decisions (Lynch, 2008). Such expertise, he argued, may be spread unevenly across the civil service and in some cases found outside in non-government agencies, but that this is unproblematic as long as this uneven level of policy analytical capacity reflects ongoing needs. That is, not all units or branches

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of government need a high level of capacity at any given time, and a 'lumpy' distribution may well be an efficient one.

Research Hypothesis. This article uses a variety of statistical techniques and most prominently a Structural Equation Model to assess four hypotheses derived from recent literature on policy work and policy analytical capacity related to the conditions found in multilevel governance systems such as Canada's. The model is developed using empirical results from recent large-scale surveys of policy workers in all 14 Canadian federal, territorial and provincial jurisdictions, as well as a study of regionally based federal employees.

The first three hypotheses address differences among the three major groups of policy-based employees: (1) provincial and territorial analysts; (2) federal government employees based in NCR; and (3) regionally based federal government employees. The fourth hypothesis addresses the impact of different types of policy work on perceptions of policy analytical capacity held by analysts engaged in policy work at all three levels of government.

> *Hypothesis 1*: Provincial and Federal NCR-based policy work is strongly defined by its territorial interests so that the requisite level of policy analytical capacity required for policy work varies by government.

Hypothesis 1 suggests that the geographical scope of policy work undertaken by provincial, territorial and NCR-based federal government employees is dominated by issues arising within the boundaries of their jurisdictions. This supports Cairns (1977) earlier view of the Canadian federal system as a distinct set of states with overlapping responsibilities as one moves from local to the national level. Conversely, based on national studies such as Prince (2007), we expect that those analysts working in the NCR will be occupied more with longer-term national level issues.

> *Hypothesis 2*: Provincial/territorial and federal regional work deals with more immediate issues while NCR federal policy work is more long-term focused.

The second hypothesis examines the temporal scope of the policy work practiced by these groups of analysts. It follows from McArthur's (2007) and Rasmussen's (1999) work on provincial level analysts which emphasized the importance of the relatively smaller size of provincial and territorial bureaucracies and the lack of organizational distance between analysts and decision makers within them as affecting the type of policy work that they do. We hypothesize that, due to their lack of autonomy from ongoing political issues and activities, provincial, territorial and regionally based employees deal with more immediate type issues (e.g. fire fighting) whereas, in contrast, NCR based employees will be more engaged with longer term issues (Voyer, 2007).[3]

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Hypothesis 3: Regional federal policy work is characterized by greater program implementation activities.

In the third hypothesis we follow Wellstead et al.'s (2009) logic in arguing that the type of analysis practiced by analysts varies according to their location inside or outside headquarters.[4] We argue that regionally based federal analysts, due to their 'front-line' position in the field, are more heavily involved in program implementation-type (i.e. street-level) activities than are NCR officials who conduct more technical policy evaluation and analysis.

Hypothesis 4: Being involved in a higher level of technical policy analysis will contribute to a higher perceived sense of policy analytical capacity and a longer term analytical perspective whereas street-level employees will have a lower perceived sense of policy capacity.

Hypothesis 4 follows through on this analysis and examines how the type of policy work undertaken plays a role in perceived policy capacity. Following Painter and Pierre (2005), we expect that those who undertake a higher technical level of policy based work will be more involved in long-term analysis and will have a higher sense of policy capacity. Conversely, those more frequently involved in street-level activities will be less engaged with the policy process and exhibit less policy capacity (Lipsky 1980).

Data and Methods. Recently there have been several Canadian empirical contributions to the policy capacity literature responding to Howlett's (2009b) and Colebatch and Radin's (2006) critique of the public policy literature as being weak on behaviorally oriented empirical studies and especially weak on studies of multilevel governance environments. The present study makes use of the combined datasets of both these earlier works. It combines data taken from Wellstead et al.'s two 2007 online surveys, using the Zoomerang® software, conducted of regional and National Capital based federal government employees engaged in policy related work and Howlett's 2009 surveys of provincial and territorial level analysts.

Wellstead contacted approximately 500 Regional Federal Council members (senior regional employees representing their respective departments or agencies) from all 10 provinces and the three territories and requested they provide contact information on regional based federal government employees who met the criteria as undertaking policy related work as set out by the investigators. A total of 1937 people were identified. Due to a small size of the population, a census rather than sample was drawn. This method is consistent with other expert based studies (Laumann and Knoke, 1987; Zafonte and Sabatier, 1998). The survey garnered 1125 useable responses for a strong overall response rate of 56.8%.

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A second survey, also deployed in late 2007, included a random sample of 725 NCR based policy employees using the publicly accessible online Government Electronic Directory Services (GEDS) and garnered 395 useable responses for an overall response rate of 56.4%. Howlett carried out territorial and provincial level surveys in 2009 (also using the Zoomerang® software) and an almost identical questionnaire. The survey was sent to over 3856 policy based civil servants situated in all 13 provincial and territorial jurisdictions. A total of 1357 survey completions were gathered for a total response rate of 43.3%.

Analysis of variance (ANOVA), factor analysis and SEM using LISREL software (Hayduk, 1987) was used for the analysis of the four central hypotheses. ANOVA techniques involving the assessment of variations in the mean responses given to survey questions are well known. Factor analyses use correlations to identify clusters of similar responses to different questions. SEMs are less well known but increasingly popular multivariate regression models in which the response variables in one regression equation in any SEM may appear as predictor in another equation, and the SEM variables may influence each other reciprocally, either directly or indirectly, or through other variables as intermediaries (Kline, 2005). They are used to identify the links between sets of factors – some measured and some implied – affecting key independent and dependent variables not all of which may have been observed or measured directly.

Findings. In the three surveys, respondents were asked how frequently they were involved in certain aspects of the policy process (on a five-point scale, where 1 = never involved and 5 = daily involvement) in order to develop a variable corresponding to 'policy work' (Table 1). A factor analysis of 11 survey items was conducted which produced two distinct broad items, consistent with the expected distinction between research-related 'policy work' and 'street-level bureaucracy' more closely related to implementation, negotiation and consultation activity.

Respondents' attitudes towards policymaking were also assessed through analysis of their general views of perceived governmental support for maintaining or improving policy capacity. A factor analysis of 10 survey items was conducted which produced four central dimensions (Table 2). The first dimension, labeled 'skeptical', emphasized attitudes related to the decline of government and policy work. The second column, 'political', reflected the perceived politicization of policy work while the third column, 'consultation', presented items that indicated the need for more consultation. The final dimension, 'central', consisted of two items reflecting perceptions of greater centralization of decision making.

The three items from 'political' were combined into a scale and were summed resulting in the new factored variable called POLITICAL. This variable was chosen over the other three because it was the only successful variable in the structural equation model. A reliability test for these items produced a Cronbach's Alpha score of .582.

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Table 1 **Self-identified roles in the policymaking process**

	Respondents	Factor 1 Technical Policy work	Factor 2 Street-level analysts
	Mean		
Appraise policy options	3.25	0.804	
Collect policy-related data	3.38	0.837	
Conduct policy-related research	3.26	0.824	
Identify policy issues	3.67	0.824	
Identify policy options	3.39	0.853	
Implement or deliver policies or programs	2.80		0.642
Negotiate with stakeholders	2.35		0.826
Negotiate with central agencies	3.00		0.557
Negotiate with program managers	2.03		0.708
Consult with the public	2.78		0.673
Consult with stakeholders			0.762

Based on 1–5 scale where 1 = never and 5 = daily Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. 61.5% of the variance explained.

Finally, an overall perception of policy capacity was measured from the question: 'Overall, how would you rate the current policy-making capacity of your department or agency?' The mean score for the respondents was 3.21 (based on a five-point scale). The descriptive scores and labels for the exogenous and endogenous variables used in the structural equation model are listed in Table 3.[5]

ANOVA analysis found that the three groups – provincial and territorial government, federal regional and federal NCR – differed fairly strongly on the endogenous variables used in the SEM (Table 4). Based on a five-point scale, provincial and territorial government employees were found to be most engaged in traditional policy work ($\bar{x} = 3.82$), followed by NCR federal government employees ($\bar{x} = 3.55$), and then regionally based federal government employees ($\bar{x} = 2.82$). In the case of street-level type activities, the mean scores were lower but the regional federal government employees were most engaged ($\bar{x} = 2.83$) and their NCR counterparts were the least engaged ($\bar{x} = 2.58$). In the case of the regional focus of issues examined, the provincial and territorial government respondents were indeed provincial/territorial in their focus ($\bar{x} = 4.54$) whereas the NCR federal employees were more nationally orientated ($\bar{x} = 4.27$). The regional federal employees occupied the middle ground in both cases ($\bar{x} = 3.74$ and $\bar{x} = 3.33$ respectively). When the temporal focus of work was compared, the regional

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Table 2 **Structure of attitudes towards governance**

Survey items	Component			
	Skeptical	Political	Consult	Centralization
Policy decisions seem increasingly to be those that are most politically acceptable.		0.718		
There seems to be less governmental capacity to analyze policy options than there used to be.		0.625		
My policy-related work increasingly involves networks of people across regions or levels of government or even outside of government.			0.800	
Much of the existing policy capacity is outside the formal structure of government.	0.735			
Formal government institutions are becoming less relevant to policymaking.	0.759			
Central agencies should play a larger role in facilitating communication between departments or regions on cross-cutting issues.				0.736
Government is becoming increasingly accountable for its decisions.				0.745
Decisions about government programs and operations are increasingly made by those outside of government.	0.670			
Urgent day-to-day issues seem to take precedence over thinking in the long term		0.786		
I am increasingly consulting with the public as I do my policy-related work.			0.807	

federal government respondents were most highly engaged in immediate tasks (fire fighting) ($\bar{x} = 4.07$) whereas somewhat unexpectedly the provincial and territorial respondents were more likely to take on long-term projects ($\bar{x} = 4.26$). The attitudinal variable (POLITICAL) presented distinct differences only between the federal regional employees – who indicated that there was less political interference with policy work ($\bar{x} = 3.79$) – than their provincial and territorial respondents ($\bar{x} = 3.90$). Finally, the NCR based federal government employees indicated the strongest perception of strong policy capacity ($\bar{x} = 3.73$), followed by provincial and territorial employees ($\bar{x} = 3.30$) and federal regional employees with the lowest perceived policy capacity scores ($\bar{x} = 2.92$).

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Table 3 **Variables used in the LISREL model**

Variable label	Description	Mean score	SD
Exogenous variables			
FED-NCR	Federal government employee working in the National Capital Region (NCR)	0.130	0.335
FED-REGION	Federal government employee working in the regions	0.371	0.483
PROV-GOV	Provincial government employee	0.499	0.500
Endogenous variables			
POLICY	Policy based tasks		
	1 = never; 5 = daily	3.42	1.00
STREET	Street-level tasks		
	1 = never; 5 = daily	2.73	0.89
PROVINCIAL	Examine provincial issues		
	1 = never; 5 = daily	4.03	1.711
NATIONAL	Examine national issues		
	1 = never; 5 = daily	3.10	1.240
FIRE	Deal with immediate issues (e.g. fire fighting)		
	1 = never; 5 = daily	3.93	1.001
LONG	Deal with long-term issues		
	1 = never; 5 = daily	3.77	1.34
POLITICAL	Policymaking is more influenced by politics		
	1 = strongly disagree; 5 = strongly agree	3.84	0.747
CAPACITY	Perceived policy capacity		
	1 = strongly disagree; 5 = strongly agree	3.21	1.029

Structural Equation Model Results. The SEM results generally supported the findings of the ANOVA analysis but revealed several nuances which the ANOVA analysis missed.[6] We first examined the impact of the three exogenous variables (PROV-GOV, FED-NCR and FED-REGION) on the two major functions (POLICY and STREET) and the issues areas (FIRE vs. LONG vs. NATIONAL vs. PROVINCIAL) by examining the standardized effects.[7]

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Table 4 **Comparisons of means between the three groups**

	FED-REGIONAL	FED-NCR	PROVINCIAL
Policy related tasks*	2.87	3.55	3.82
Street-level related tasks*	2.58	2.70	2.82
Provincial issues*	2.79	3.74	4.54
National issues*	2.62	3.33	4.27
Immediate action tasks*	3.81	3.95	4.07
Long-term tasks**	3.27	4.19	4.26
Policy based attitudes	3.77	3.83	3.89
Perceived policy capacity*	2.92	3.30	3.73

*three distinct homogenous subsets.
** two subsets: (1) all the federal respondents and (2) provincial respondents.

Provincial and territorial respondents (PROV-GOV) were found to be more likely to undertake policy (POLICY) related tasks ($\gamma = .173$) whereas federal government employees in the regions (FED-REGION) were less likely to do so ($\gamma = -.312$). Provincial and territorial government employees were the most likely to examine provincial issues ($\gamma = .276$) but were far less likely to examine issues on a national basis ($\gamma = -.407$). Those in the FED-NCR group presented the converse results with more engagement in national issues ($\gamma = .163$) and less on provincial issues ($\gamma = -.297$). The federal regional respondents were less likely to examine provincial ($\gamma = -.079$) and national issues ($\gamma = -.115$). Provincial and territorial employees were less involved with both immediate issues (FIRE) ($\gamma = -.122$) and long term issues (LONG) ($\gamma = -.274$), whereas federal regional employees were more apt to engage in long-term issues ($\gamma = .129$). There was only weakly positive effect from provincial government respondents to POLITICAL ($\gamma = .070$).

The paths from the two major endogenous functions (POLICY and STREET) were then examined. The first notable and unexpected result was the very strong effect from POLICY to STREET ($\beta = .446$). This strong positive relationship indicates that – contrary to our expectations – those who did policy work were also likely to do street level activities, meaning that these positions and tasks were far from mutually exclusive. However, greater engagement in policy activities did imply a greater involvement in provincial ($\beta = .313$), national ($\beta = .376$) as well as long-term ($\beta = .191$), and immediate (FIRE) ($\beta = .161$) issues.

Also contrary to what we expected, the SEM analysis revealed that many analysts who were more involved in provincial and territorial issues (PROVINCIAL) were also engaged in national issues (NATIONAL) ($\gamma = .207$) and long-term issues (LONG) ($\gamma = .112$). National issue work also was accompanied with fire fighting (FIRE) ($\gamma = .143$) and long-term issues

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(LONG)($\gamma = .119$), again suggesting that these forms of activities are also not oppositional: those who do more of one tend to do more of the other.

With respect to the attitudinal variables, however, as expected, those who were actively engaged in 'fire fighting' (FIRE) activities were more likely to agree that policymaking was less rational than politically motivated (POLITICAL) ($\beta = .164$). Finally, those who recognized greater political involvement in policy-making (POLITICAL) also had a very strong sense that policy capacity was increasingly weak (CAPACITY) ($\beta = -0.266$).

Implications and Conclusion

Underlying our four specific hypotheses was the idea that the policy work conducted by the territorial and provincial governments in Canada's multilevel system of government differs in important ways from that undertaken in Ottawa and the regions (Rieper and Toulemonde, 1997), with important implications for the understanding of policy analytical capacity in multilevel governance regimes. This was, in part, supported by the comparison of individual mean scores in the ANOVA analysis. Our anticipated results concerning *Hypothesis 1*, the territorial focus of work by provincial/territorial and NCR respondents, was strongly supported. However, the SEM analysis did not support *Hypothesis 2,* that provincial/territorial respondents were more engaged in dealing with immediate issues and national analysts more long-term ones. As we anticipated, however, the NCR respondents were engaged in national and long-term tasks.

Again, contrary to our expectation, the SEM analysis also revealed with respect to *Hypothesis 3* that the regional federal respondents were not more engaged in street-level implementation activities and were in fact more likely to be involved in long-term issues rather than with fire-fighting tasks.

Finally, with respect to *Hypothesis 4*, we found that those engaged in traditional technical policy work did have a stronger perception of policy capacity when they were engaged in longer term tasks. However, this group also undertook more fire-fighting tasks as well as undertaking provincial, territorial and national level analyses than we had expected based on our literature review.

We conclude that despite the significant differences between the three groups in terms of issue orientations, the level of engagement in different kinds of policy-related tasks remains paramount in explaining levels of engagement in policy work and in attitudes towards government policy capacity, not the level of government at which the work takes place. However, the nature of the task remains significant, as highly engaged street-level bureaucrats were more likely to be involved in fire-fighting activities and also to perceive lower levels of policy capacity.

These findings are important not only to critics and theorists outside of government institutions who wish to better understand the operation and functioning of policy advice systems, and especially these systems' professional bureaucratic

component; but also to those inside the system who wish to better assess and evaluate such activities in order to improve training and recruitment practices, enhance analytical capacity and, ultimately, improve both policy analysis and policy outcomes (ANAO 2001; Uhr 1996; Waller 1992; Weller and Stevens 1998; State Services Commission 1999). They suggest that policy work and attitudes are much the same at different levels of government in multilevel systems, and that policy analysts as a whole share common values and orientations towards their work. They also suggest that the kinds of moves away from traditional technical work orientations associated with a 'new governance environment' focus on consultation and other kinds of 'street-level' work has raised genuine concerns about policy capacity, and that government efforts should be directed to overcoming this challenge through better training and management of policy work and policy workers (Geva-May and Maslove 2006, 2007).

It also suggests fruitful directions for future research which should focus on the two uncovered central variables of policy engagement and the nature of the tasks performed in any assessment of a government's policy analytical capacity.

Notes

1. There are many competing definitions of policy capacity (Parsons, 2004; Riddell, 2007; Christensen and Gazley, 2008; Edwards, 2009). Honadle (1981) for example defined it as 'the ability to: anticipate and influence change; make informed, intelligent decisions about policy; develop programs to implement policy; attract and absorb resources; manage resources; and evaluate current activities to guide future action' (p. 578). Others, however, are more concerned with the ability of the state to respond to change (Weiss, 1998), the intellectual and organizational resources of the state (Cummings and Nørgaard, 2004), the management of knowledge and organizational learning (Parsons, 2004), or effective policy formulation (Goetz and Wollmann, 2001). Regardless of their specific orientation, however, all observers agree that policy capacity is a significant determinant and indicator of a high-performing government (Bakvis, 2000; Harrow, 2001; Aucoin and Bakvis, 2005; Peters and Pierre, 2005); O'Connor et al., 2007; Weber and Khademian, 2008).

2. There has also been an opening of public scrutiny and a subsequent breakdown of the implicit Westminster-style civil service bargain that was traditionally struck between public servants and their ministers: the former would offer professionalism, discretion and non-partisan loyalty to the latter in exchange for anonymity and job security of tenure (Savoie, 2003a, 2003b). Without the anonymity that protects the public service from political influence, public officials may be more inclined to both promote easy policy options preferred by politicians, and to engage in 'fire fighting' by focusing on immediate political issues rather than in longer-term, more technical, policy planning (Hoppe, 1999).

3. Howlett's (2009a) survey of Canadian provincial and territorial government employees engaged in policy-related work used many of the same variables as in Wellstead et al.'s (2009) earlier study. He found several distinct types of analysts and analytical activities to exist, from 'pure' technical evaluators to policy 'negotiators' and 'consultors'. But provincially and territorially-employed policy analysts in many ways tended to fit the profile of process-oriented troubleshooters with a 'street-level' policymaking

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orientation much like that found at the regional level. Provincial analysts tended to be young and well educated, from a social science background, relatively inexperienced and untrained in formal policy analysis or analytical techniques, and worked in small policy shops located in their respective capital region. They tended to work on provincial or territorial issues almost exclusively within their own government and interacted mainly with headquarters officials. These characteristics, he argued, reinforced the short-term, trouble-shooting characteristics of Canadian provincial policymaking identified earlier by Rasmussen (1999) and McArthur (2007).

4. Wellstead et al. (2009) compared the attributes, tasks and attitudes of policy oriented employees in the regions and in the NCR (Ottawa-Gatineau). Based on online survey results, they found that both groups differed on many fronts. Policy analysis was one of many tasks that the regional respondents simultaneously undertook along with other competing tasks including policy coordinator, manager, liaison and program implementer. However, when they undertook policy related work, it tended to be relatively rudimentary, for example collecting basic policy-related information or identifying policy issues. The regional respondents, nevertheless, were more engaged with other government agencies, the general public and stakeholder groups than their NCR counterparts.

5. We conducted a series of means comparisons using ANOVA and Dunnett's 'C' test for heterogeneity on the location and temporal issues examined, the two major policy tasks, and perceptions of capacity (Appendix I). All eight items had differences in mean scores among the three different policy worker types. In most cases, all three groups had their own distinct mean scores, that is, the Dunnett's 'C' test for heterogeneity yielded significantly different groupings. Policy related tasks (POLICY) and street-level activities (STREET) differed significantly between the three groups.

6. The model's final likelihood estimates (see Appendix II and IIb) were obtained using LISREL 8.8. The descriptive models fit the data well in that the observed covariances closely match the model-implied covariances. The fit criteria suggest that the empirical data fit this model. ($\chi^2 = 18.07$, df=19, p=0.5176, RESEA [root mean-square error of approximation] =0.000). The modification indices show that no effects, currently excluded from the model, would, if added, significantly improve the model fit.

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Appendix I

Summary of variance for endogenous variables

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
PROVINCIAL	Between Groups	942.147	2	471.073	459.418	0.000
	Within Groups	2793.107	2724	1.025		
	Total	3735.254	2726			
NATIONAL	Between Groups	839.737	2	419.869	339.391	0.000
	Within Groups	3388.479	2739	1.237		
	Total	4228.216	2741			
FIRE	Between Groups	38.259	2	19.130	19.363	0.000
	Within Groups	2604.268	2636	0.988		
	Total	2642.527	2638			
LONG	Between Groups	642.048	2	321.024	244.931	0.000
	Within Groups	3520.460	2686	1.311		
	Total	4162.508	2688			

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POLITICAL	Between Groups	7.759	2	3.880	6.970	0.001
	Within Groups	1350.461	2426	0.557		
	Total	1358.220	2428			
POLICY	Between Groups	529.895	2	264.947	324.727	0.000
	Within Groups	2201.318	2698	0.816		
	Total	2731.212	2700			
STREET	Between Groups	18.236	2	9.118	11.387	0.000
	Within Groups	2020.342	2523	0.801		
	Total	2038.578	2525			
CAPACITY	Between Groups	180.629	2	90.315	91.012	0.000
	Within Groups	2657.479	2678	0.992		
	Total	2838.108	2680			

Appendix IIa

Structural equation model (SEM) maximum likelihood estimates

Maximum Likelihood Estimates				
Direct effect from	To	Effect	t-value	Standardized effect
PROV-GOV	POLICY	0.338	6.244	0.174
	PROVINCIAL	0.641	12.468	0.276
	NATIONAL	−0.998	17.827	−0.407
	FIRE	−0.239	−4.980	−0.122
	LONG	−0.675	−8.182	−0.274
	POLITICAL	0.100	3.055	0.070
FED-NCR				
	STREET	−0.176	2.668	−0.066
	CAPACITY	0.393	6.297	0.131
	PROVINCIAL	1.033	−15.578	−0.297
	NATIONAL	0.600	8.469	0.163
	LONG	0.225	2.515	0.061
FED-REGION	POLICY	−0.626	−11.271	−0.312
	CAPACITY	−0.380	−8.284	−0.183
	PROVINCIAL	−0.190	−6.476	−0.079
	NATIONAL	−0.291	−8.973	−0.115
	LONG	0.330	3.962	0.129
POLICY	STREET	0.407	17.864	0.446
	CAPACITY	0.193	7.483	0.187
	PROVINCIAL	0.373	14.339	0.313

	NATIONAL	0.478	17.016	0.376
	FIRE	0.163	11.088	0.161
	LONG	0.242	7.827	0.191
	POLITICAL	0.024	3.200	0.032
STREET	CAPACITY	−0.012	−5.209	−0.011
	PROVINCIAL	0.123	4.83	0.094
	NATIONAL	0.027	3.957	0.019
	FIRE	0.269	10.703	0.243
	LONG	0.184	5.78	0.133
	POLITICAL	0.032	5.788	0.040
PROVINCIAL	CAPACITY	0.003	3.908	0.003
	NATIONAL	0.219	8.560	0.207
	LONG	0.119	4.306	0.112
	FIRE	0.025	4.841	0.030
NATIONAL	FIRE	0.115	5.504	0.143
	LONG	0.119	4.595	0.119
FIRE	POLITICAL	0.120	6.765	0.164
POLITICAL	CAPACITY	−0.372	−11.850	−0.266

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Appendix IIb

Structural Equation Model