Policy Work in Multi-Level States: Institutional Autonomy and Task Allocation among Canadian Policy Analysts

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Introduction: Policy Work in the Modern State

The ability of governments to develop and derive significant results from their analytical activity is a function of their capability to generate, process and utilize policy-relevant information in their policy deliberations (Colebatch and Radin, 2006; Page and Jenkins, 2005; Radin, 2000). Honadle argues that this ability involves their capacity 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" (1981: 578).

A high level of such policy analytical capacity is a significant determinant and indicator of a high-performing government (Aucoin and Bakvis, 2005; Bakvis, 2000; Harrow, 2001; O'Connor et al., 2007; Painter and Pierre, 2005; Weber and Khademian, 2008) and policy workers in government potentially contribute to this capability in many ways. Despite a plethora of studies on policy making and policy analysis, however, actual empirical studies of the work of policy analysts are rare; mostly quite dated (for example, Durning and Osuna,1994; Meltsner, 1976); cover only a very few jurisdictions (Bakvis, 1997; Colebatch, 2005, 2006; Hoppe and Jeliazkova, 2006; Radin, 2000; State Services Commission, 1991, 1999; Uhr and Mackay, 1996; Weller and Stevens, 1998); and rely on very partial samples (Page and Jenkins, 2005). Moreover, with only a handful of exceptions (see, for example, Dobuzinskis et al., 2007; Hird, 2005b; Rieper and Toulemonde, 1997) all of these studies focus only upon

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Canadian Journal of Political Science / Revue canadienne de science politique
45:4 (December/décembre 2012) 757–780 doi:10.1017/S0008423912000984

national or central governments. As a result, surprisingly little is known about the working world of policy analysts in multilevel governments[1] and the manner in which policy analytical tasks are organized and how they contribute to, or detract from, overall governmental policy capacity.

This dearth of information affects all governance systems but is most acute in multilevel and especially federal states where subnational entities play an autonomous, independent policy role in their areas of exclusive or joint jurisdiction, acting as the co-equal of national, central governments (Howlett, 1999). High-profile and otherwise well-studied federal states, such as Germany and Australia, for example, lack empirical data on the kinds of policy analysis practised in their powerful subnational governments. This is despite the fact that governments at this level in federal countries typically perform many or most of the important tasks associated with major policy areas, such as health care, natural resources, social welfare programs, transportation and many others (Howlett, 1999). Basic data are missing in this area and it is unknown in most of these countries, for example, how many policy workers there are in subnational policy positions, how they got there, what they do in their work and with what effect.

This gap in knowledge about professional policy work in government has recently started to be addressed in some countries (see, for example, Howlett, 2009b, 2009c; Howlett and Newman, 2010; Wellstead and Stedman, 2010; Wellstead et al., 2011) but continues to pose significant problems for the understanding of policy practices. This article addresses this gap and provides insights into the nature of policy work and policy analysts in Canada, a prominent example of a very decentralized federation where subnational units hold significant jurisdictional responsibilities (McArthur, 2007). It utilizes the results of a large-scale set of surveys of federal, provincial and territorial analysts conducted between 2007 and 2009 for this purpose. Through the use of exploratory factor analysis and structural equation modeling (SEM) of the provincial and territorial components of policy workers and its comparison with data on policy work conducted in the federal government (Wellstead and Stedman, 2010; Wellstead et al., 2011), the article provides insights into both the nature of policy work at the subnational level and the differences, and similarities, that exist between federal and provincial–territorial analysts.

Existing Evidence from the Canadian Experience

Wellstead and colleagues (2009) and Wellstead and Stedman (2010) examined the attributes, tasks and attitudes of Canadian federal government policy-oriented employees and in so doing uncovered significant differences in the work of those regionally-based policy analysts com-

Abstract. Despite all the attention paid to the topic of policy analysis as a conceptual endeavour, empirically, the actual work of policy analysts is little investigated and little known. This is true generally of most countries and jurisdictions but it is most acute at the subnational level of government in multilevel states. Recent work in Canada, however, based on comprehensive surveys of analysts of provincial and territorial policy, on the one hand, and regionally and Ottawa-based federal policy workers on the other, has found many similarities with national-level work but also significant differences. This work has highlighted differences in the distribution of tasks across jurisdictions—mainly the extent to which policy work involves implementation as well as formulation-related activities—as key distinctions found in policy work across levels of the Canadian multilevel system. This article uses frequency and principal components analysis (PCA) and structural equation modeling (SEM) to probe these dimensions of policy work. It shows provincial and territorial analysts to be similar to regionally based federal workers in task allocation, undermining a straightforward depiction of differences in policy work by level of government. The extent of autonomy enjoyed by policy workers in different jurisdictional venues, both from internal actors and those outside of government, is shown to be the key driver of differences in policy work across levels of government.

Résumé. Malgré toute l'attention accordée au thème de l'analyse politique comme un effort conceptuel, empirique du travail réel des analystes des politiques est peu étudié et mal connu. Ceci est vrai en général de la plupart des pays et juridictions, mais est le plus aigu au niveau sous-national de gouvernement dans les États multi-niveaux. Des travaux récents au Canada, cependant, basée sur des enquêtes complètes des provinces et des territoires, d'une part, et régional et basée à Ottawa analystes de la politique fédérale, d'autre part, a trouvé de nombreuses similitudes avec le travail au niveau national mais aussi des différences significatives. Ce travail a mis en évidence des différences dans la répartition des tâches entre les administrations – notamment la mesure dans laquelle le travail politique consiste à la mise en œuvre ainsi que la formulation des activités liées – comme les distinctions clés trouvés dans le travail politique à travers les niveaux de l'canadienne système multi-niveau. Cet article utilise la fréquence et analyse en composantes principales (ACP) et la modélisation par équations structurelles (SEM) pour sonder ces dimensions du travail politique. Il montre les analystes provinciaux et territoriaux à être semblables à l'échelle régionale basée sur les travailleurs fédéraux dans la répartition des tâches, minant une représentation directe des différences dans le travail politique, par niveau de gouvernement. Le degré d'autonomie dont jouissent les travailleurs dans les différents lieux de la politique juridictionnelle – à la fois par des acteurs internes et ceux de l'extérieur du gouvernement – se révèle être le principal moteur de différences dans le travail politique à travers les niveaux de gouvernement.

pared to their counterparts in the National Capital Region (NCR) Ottawa–Gatineau. Based on online survey results from several thousand policy workers, they found that regional respondents who did traditional policy-related work generally undertook only fairly rudimentary and the least technical types of work, most notably collecting information, and policy analysis was identified as only one of many tasks that the regional respondents simultaneously undertook (such as policy co-ordinator, manager, liaison officer and program deliverer). Federal analysts located in the national capital, on the other hand, devoted more of their time and attention solely to analytical tasks. As a result of this distribution of tasks, Wellstead and Stedman argued, policy capacity was greater in the NCR than in the regions, with significant implications for the effectiveness of federal policy work in the two locations.

Between 2008 and 2009, the present authors replicated Wellstead and colleagues' 2007 survey, focusing on the activities of several thousand Canadian provincial and territorial government policy workers in all thirteen sub-national jurisdictions. In a preliminary study using this dataset, Wellstead and colleagues (2011) compared federal regional workers with their cohorts located in the NCR and with provincial and territorially based analysts. They found provincial and territorial analysts shared many similar concerns and characteristics as those of federal regional employees and concluded that task allocation, rather than level of government, per se, was a key factor affecting differences in policy work found in the different samples. As they put it:

> 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. (Wellstead et al., 2011: 364)

That is, while the activities of policy workers were correlated with the level of government at which the work takes place, it was not the formal level of government or legal jurisdiction which influenced the kind of work undertaken but rather the distribution of tasks, since federal regional analysts undertook similar kinds of tasks and engaged in similar kinds of work as did their provincial and territorial counterparts. Provincial and territorial and federal regional analysts tended to engage in more types of tasks, especially those related to policy implementation, than did their federal counterparts who were focused more of their work and energy on formulation activities, enhancing the capacity of the national–central government in so doing.

While Wellstead and colleagues (2011) did not try to explain the origins of these differences in task allocation, Howlett and Wellstead (2012) examined this combined survey evidence but used a different methodology. They also found that significant differences exist between federal and provincial–territorial analytical work which parallel the federal–central versus regional dimension uncovered by Wellstead and Stedman (2010). In explaining this pattern they drew on earlier work by McArthur (2007) to suggest that the differences in tasks performed were a function of the organization of government at each level and especially of the extent of autonomy or independence analysts had from politicians and social actors within each jurisdiction. As they put it:

> The level of autonomy from political control and social actors found in a government affects the ability of analysts to undertake long-term research and analysis. Where lines of control and social contacts are higher, as in subnational

> governments, analysis will tend to be more politically driven and short term in nature. (2012: 13)

This article combines these findings and explores the interactions between the extent of autonomy and task allocation in multilevel government policy work in more detail. More specifically, it examines specific types of policy work found among each group of policy workers as to their engagement in tasks related to policy formulation versus those related to implementation. Following Wellstead and Stedman (2010), it tests whether there are significant similarities in tasks across jurisdictions rather than a sharp division of labour by level of government. Secondly, it also probes the impact of autonomy on policy workers by examining in detail the nature of the internal and external networking behaviour of policy workers at each level. In so doing it provides additional detail and insight into the workings of policy analysts and analysis in multilevel and federal systems of government, which are useful not only in fleshing out the portrait of professional policy work in Canada, but in multilevel states more generally.

Three Hypotheses

This article addresses several specific hypotheses derived from the earlier studies mentioned above (Howlett and Wellstead, 2012; Wellstead and Stedman, 2010; Wellstead et al., 2011) regarding differences related to the autonomy and task allocation theses found in the nature of policy work practices followed in multilevel contexts. These relate to investigating the linkages between implementation and the ability of analysts to strategize, between implementation activities and the nature of network activities of policy workers, and between the direction of networking activities and perceptions of policy capacity held by the policy workers themselves.

First, the existing Canadian data suggest that policy workers undertake four main policy tasks: consultation, implementation, research and strategizing (Howlett and Wellstead, 2011; Voyer, 2007). These tasks differ in the scope of the work performed, including its level of complexity, falling somewhere between its routine or technical nature, and its temporal nature, whether it involves immediate "firefighting" or a longer-term strategic orientation. Following Wellstead and Stedman (2010), we hypothesize that analysts who undertake implementation, regardless of level of government, are more likely to undertake routine level tasks and to be primarily engaged in firefighting. In contrast, researchers should be more likely to be involved in technical and longer-term issues and activities.

H1. Regardless of the level of government in which they work, analysts who undertake implementation tasks are more likely to undertake routine level tasks and to be primarily engaged in "firefighting."

Second, existing studies, such as Wellstead and colleagues (2011), have shown that policy work is a network-based activity where analysts work internally with colleagues and supervisors within their own departments and externally with other levels of government, academics, universities and NGOs among others. "Autonomy" relates to the nature of these interlinkages, with a higher level of autonomy corresponding to a higher degree of insulation from external actors. We hypothesize that, again regardless of the level of government in which they work, those analysts who are heavily involved in strategic activities will be more engaged in internal networks and enjoy a lower level of autonomy than implementers who are more involved with actors outside of government.

H2. Analysts who are heavily involved in strategic activities will be more engaged in internal networks whereas implementers will be more involved with actors outside of government.

Third, specifically with respect to capacity issues, we expect that those analysts involved in external networks will face lower perceived barriers in their work, will demonstrate stronger attitudes towards the general policy environment and express more favourable views of their agency's policy capacity (Wellstead and Stedman, 2010). Conversely, we expect that analysts who perceive higher barriers in their work will have a lower sense of their units' policy capacity.

H3. Analysts involved in external networks will face fewer perceived barriers in their work and will demonstrate stronger attitudes towards the general policy environment and express more favourable views of their agency's policy capacity than those mainly involved in internal networks.

Survey Data and Methods

Data on provincial and territorial policy work and policy workers were assembled through a web-based survey of 3,856 policy analysts working in the 13 Canadian provincial and territorial jurisdictions conducted in 2008 and 2009 using Zoomerang, an online commercial software service. Mailing lists for the surveys were compiled wherever possible from publicly available sources, such as online government telephone directories, using keyword searches for terms such as "policy analyst" or "policy manager" appearing in job titles or descriptions. In some cases additional names were added to lists from hard-copy sources such as government organization manuals. In other cases lists or additional names

were provided by provincial or territorial public service commissions, who also checked initial lists for completeness and accuracy. Due to the small size of the population, a census rather than sample was drawn. This method is consistent with other expert-based studies (see, for example, Laumann and Knoke, 1987; Wellstead and Stedman, 2007; Zafonte and Sabatier, 2004). A total of 1,357 survey completions were gathered from 3,856 valid email addresses for a final response rate of 43.3 per cent.

The provincial and territorial completion rates are set out in Table 1 below. Due to the use of a different (snowball) survey methodology in Quebec which generated a smaller sample, the 130 responses from that province are excluded from the analysis which follows. However a separate analysis of the results from the Quebec survey found a similar pattern of responses to those found in the other 12 provinces and territories (Bernier and Howlett, 2009, 2010).

Studies of the demographic and other characteristics of the sets of national and subnational analysts found in Canada based on these surveys have been published previously (Howlett, 2009b, 2009c; Howlett and Newman, 2010; Wellstead et al., 2007) and revealed more similarities than differences among the two sets of analysts in terms of age, gender, background and training, and other characteristics. As a result, the present study focuses on the nature of the tasks these analysts perform rather than upon the education, work history and the other demographic and sociocultural aspects described in this previous work. As set out below, frequency and cluster analytical methods revealed a number of significant differences between analysts' work in the two levels of government.

Exploring the Federal and Provincial–Territorial Task and Autonomy Dimensions: Frequency and Cluster Analysis Results

Tables 2 to 6 below provide the results of frequency and exploratory factor analysis[2] of selected attributes of provincial and territorial policy work that comprise a short profile of the salient characteristics of the tasks performed by subnational analysts and their attitudes towards them. These include data on their critical skills sets (Table 2), their temporal focus (Table 3), the barriers they identify to the effective pursuit of their jobs (Table 4), the nature of the tasks with which they typically grapple (Table 5) and the nature of their networks and contacts (Table 6). Together these provide a basic profile of the analytical work done at this level of government which can be compared to that produced of federal analysts by Wellstead and his colleagues (Wellstead et al., 2007, 2009, 2010).

In the first instance, respondents were probed to see what kinds of tasks they performed most often and were asked how frequently they were involved in 15 different aspects of the policy process (on a 6-point

TABLE 1
Provincial Survey Sample Sizes and Completion Rates

Province	Identified Population	Population Identified as a Percentage	Refusals and Rejected Emails	Valid Partial Completions	Complete	Response Rate (%)	Provincial Participation
British Columbia	513	13.30	51	30	194	48.5	14.30
Alberta	368	9.54	23	8	112	34.8	8.25
Saskatchewan	246	6.38	27	13	80	42.4	5.90
Manitoba	161	4.18	20	6	98	73.7	7.22
Ontario	1613	41.83	162	52	557	41.9	41.05
Quebec*	250	6.48	0	44	86	52.0	6.34
New Brunswick	162	4.20	15	4	62	44.9	4.57
Nova Scotia	181	4.69	20	15	83	44.1	6.12
PEI	27	0.70	6	1	4	23.8	0.29
Newfoundland	139	3.60	24	16	55	61.7	4.05
Yukon	75	1.95	8	6	58	95.5	4.27
NWT	80	2.07	2	2	41	55.1	3.02
Nunavut	41	1.06	8	2	13	45.4	0.96
TOTAL (excluding Quebec)	3856		366	155	1357	43.3	

*Snowball sample methodology—data excluded from totals and from subsequent tables.

scale, where 1 = never involved and 6 = daily involvement). Table 2 presents both the individual mean ($\bar{x}$) scores in individual items along with a factor analysis that produced four distinct types of analytical workers: researchers, implementers, strategic analysts and evaluators.[3]

The three research-based skills (collecting policy-related data/information, identifying policy issues and conducting policy-related research) accounted for the highest mean scores, indicating the provincial policy analysts surveyed conducted traditional policy work consistent with that conducted by federal government employees (Wellstead et al., 2009). The factor analysis also revealed that, as with both federal central and regional employees, research ($\bar{x}$ = 3.82) and implementation ($\bar{x}$ = 2.56) were two clearly identified groups of activities.

Second, the analysts were asked about the long-term versus short-term orientation of their work. Table 3 sets out the mean scores provided by respondents when asked about the frequency of their focus on issues of different duration (with a score of 1 being "never" and 6 being "daily"). As this table shows, the provincial and territorial respondents spent the most time on immediate action items ($\bar{x}$ = 4.65) and less time on longer-term commitments. This is unlike the pattern with federal government policy analysts working in the NCR who tended to split their time between immediate and long-term projects, although it is similar to the situation found in the regions (Wellstead et al., 2009).

Third, analysts were asked about their perceived sources of organizational barriers to their increased effectiveness. While there are many competing ways to operationalize policy analytical capacity (Painter and Pierre, 2005; Weiss and Bucuvalas, 1980), most studies reflect in some way the need for adequate budgetary and personnel resources to be provided to policy analysts to enable them to pursue their duties at a high level of competence (Parsons, 2004).

Table 4 lists the barriers identified by the respondents. Respondents were asked to indicate whether or not (yes or no responses) they faced any of 15 common barriers in their work. The most prominent concerns were that there was not enough time in the day or week (48%) to complete assigned tasks and not enough resources available to do so properly (33%). A reliability analysis produced a single summed scale with a very strong alpha of .859. This concern about barriers was similar to that identified by Wellstead and colleagues (2007) for federal NCR policy workers who also indicated that there were not enough resources available to them to allow them to carry out their tasks. In the case of their federal regional counterparts, however, communication issues, such as input or the delegation of authority, were considered to be a more important barrier than resources.[4]

Fourth, provincial and territorial analysts were asked about their attitudes towards their work and its effectiveness. Table 5 shows that provin-

TABLE 2
Critical Skill Sets among Provincial and Territorial Analysts

	Component			
	Research (Alpha = .868)	Implement (Alpha = .614)	Strategic (Alpha = .731)	Evaluators (Alpha = .856)
Mean score	$\bar{x} = 3.82$	$\bar{x} = 2.56$	$\bar{x} = 3.37$	$\bar{x} = 2.90$
Skill sets				
Collect policy-related data or information $\bar{x} = 3.99$	.843			
Conduct policy-related research $\bar{x} = 3.81$	.841			
Identify policy issues $\bar{x} = 3.91$	.662			
Identify policy options = 3.72	.691			
Appraise policy options $\bar{x} = 3.57$	.606			
Implement or deliver policies or programs $\bar{x} = 2.90$		.600		
Negotiate with stakeholders on policy matters $\bar{x} = 2.84$		.923		
Consult with the public on policy matters $\bar{x} = 2.62$		.542		
Prepare reports. briefs or presentations for decision makers on policy matters $\bar{x} = 3.75$			.684	
Consult with decision makers on policy matters $\bar{x} = 3.44$			.697	
Brief lower or mid-level policy managers $\bar{x} = 3.47$			.490	
Brief high-level decision makers such as cabinet ministers, ministerial staff, senior managers $\bar{x}$			.780	
Evaluate policy results and outcomes $\bar{x} = 2.93$				.836
Evaluate policy processes and procedures $\bar{x} = 2.89$				.859

67.28% of the variance explained.
Mean scores are based on a 5-point scale where 1 = never and 5 = daily.

TABLE 3
Temporal Focus of the Provincial Respondents

	Provincial respondents		
	Number	Mean	SD
Temporal focus of issues examined			
Immediate action items (i.e., fire fighting)	1343	4.65	1.29
Short-term files (less than a month)	1342	4.51	1.18
Medium-term files (1–6 months)	1337	4.34	1.23
Long-term files (6–12 months)	1339	4.12	1.46
Ongoing files	1337	3.84	1.67

Based on 6-point scale where 1 = never and 6 = daily.

cial and territorial analysts reveal four very different attitudinal loadings with respect to their feelings about the nature of government policy processes and their role(s) in it (on a 5-point scale, where 1 = strongly disagree and 5 = strongly agree). The most prominent individual item was "urgent day-to-day issues seem to take precedence over long-term thinking" with a mean score of 4.28. Conversely, the respondents saw policy work as being less engaged with the public ($\bar{x} = 2.65$). The four factored attitudes (skeptics, reactors, rationalists and consulters) closely resemble those present in federal regional respondents (Wellstead et al., 2009).

TABLE 4
Barriers Faced by Respondents

	Number	Mean	SD
Head Office does not consider our expertise or input	1512	.11	.31
Insufficient delegation by Head Office	1512	.15	.36
Insufficient expertise in the regions	1512	.05	.21
Lack of access to training	1512	.12	.33
Lack of support from within my work unit	1512	.11	.32
Lack of support from within my department	1512	.16	.37
Not enough resources	1512	.33	.47
Job description does not allow it	1512	.11	.32
Lack of relevant skills	1512	.07	.26
Not enough time in the day or week	1512	.37	.48
Short-term orientation of work	1512	.18	.38
No demand for additional work from management	1512	.10	.31
No demand for additional work from peers	1512	.04	.18
Lack of access to relevant information or data	1512	.12	.33
Lack of access to stakeholders or outside policy expertise	1512	.10	.30
Sum of barriers faced in work activities	1512	.014	

Based on 6-point scale where 1 = never and 6 = daily.

TABLE 5
Attitudes towards Government Policy Making in General

	Skeptics (Cronbach's α =.641)	Reactors (Cronbach's α =.598)	Rationalists (Cronbach's α =.559)	Consulters (Cronbach's α =.492)
Mean scores	$\bar{x}$ = 3.72	$\bar{x}$ = 2.87	$\bar{x}$ = 3.59	$\bar{x}$ = 2.79
Attitudes towards government policy making				
Urgent day-to-day issues seem to take precedence over long-term thinking. $\bar{x}$ = 4.28	.772			
Policy decisions seem to increasingly be those that are most politically acceptable. $\bar{x}$ = 3.98	.797			
There seems to be less governmental capacity to analyze policy options than there used to be. $\bar{x}$ = 3.43	.652			
Much of the existing policy capacity is outside the formal structure of government. $\bar{x}$ = 2.91		.725		
Formal government institutions are becoming less relevant to policy making. $\bar{x}$ = 2.94		.739		
Decisions about government programs and operations are increasingly made by those outside of government. $\bar{x}$ = 2.87		.697		
An important role of the provincial government is to foster involvement in the policy process by other non-governmental organizations. $\bar{x}$ = 3.70			.505	
Central agencies should play a larger role in facilitating communication between departments or regions on cross-cutting issues. $\bar{x}$ = 3.81			.595	
Government is becoming increasingly accountable for its decisions. $\bar{x}$ = 3.66			.749	
Evidence is increasingly being asked for in government policy development and evaluation $\bar{x}$ = 3.82			.720	
I am increasingly consulting with the public as I do my policy-related work. $\bar{x}$ = 2.65				.814
My policy-related work increasingly involves networks of people across regions or levels of government or even outside of government. $\bar{x}$ = 3.71				.746

56.40% of the variance explained.

Many provincial and territorial analysts, like their federal regional counterparts are skeptics, feel they simply react to initiatives taken elsewhere or engage mainly in consultative behaviour. Only a relatively small portion views the policy process or their role in it as rational in a technocratic sense.[5]

Fifth, due to the many types of issues that analysts deal with, respondents were also asked about their level of involvement with different types of issues. They were asked to rate the nature of these issues on a 6-point scale (where 1 = never involved and 6 = daily involvement).[6] A factor analysis (see Table 6) produced three items, with some analysts focusing on routine work but less so than the regional workers identified by Wellstead and colleagues (2009). However, the respondents were also found to be very heavily involved in the "technical" analysis of complex problems ($\bar{x} = 4.39$) and consultation work ($\bar{x} = 2.89$). The provincial and territorial respondents therefore mirrored their centrally located federal counterparts in terms of the distribution and frequency of these complex and technical tasks.

Who these policy analysts engaged with in their policy work was a sixth area of questioning. The results are set out in Table 7. A factor

TABLE 6
Nature of Policy Issues Most Involved with

	Component		
	Complex Technical (Alpha = .793)	Consultative (Alpha = .717)	Routine
Mean score	$\bar{x} = 4.39$	$\bar{x} = 2.89$	$\bar{x} = 2.82$
Nature of issues			
Issues that require co-ordination with head office $\bar{x} = 4.25$	.551		
Issues that require specialist or technical knowledge $\bar{x} = 4.37$	.702		
Issues where it is difficult to identify a single clear simple solution $\bar{x} = 4.64$	.814		
Issues for which data are not immediately available = 4.39	.809		
Issues which demand the creation or collection of policy-relevant evidence $\bar{x} = 4.23$	.758		
Issues that demand input from societally based organizations $\bar{x} = 3.05$		.865	
Issues that demand public consultation $\bar{x} = 2.83$		.861	
Issues that have a single, clear, relatively simple solution $\bar{x} = 2.82$			.962

68.00% of the variance explained.
Mean scores are based on a 6-point scale where 1 = never and 6 = daily.

TABLE 7
Nature of Contacts/Networks

	External (Cronbach's α = .878)	Internal (Cronbach's α = .808)
Mean score	$\bar{x}$ = 2.02	$\bar{x}$ = 3.40
Nature of contacts		
Senior head office-based management $\bar{x}$ = 4.74		.873
Other head office staff $\bar{x}$ = 4.72		.873
Senior regional management $\bar{x}$ = 3.86		.637
Central agencies $\bar{x}$ = 3.72		.721
Municipal government departments $\bar{x}$ = 2.41	.646	
Federal departments in my region $\bar{x}$ = 2.57	.675	
Environmental/conservation based groups $\bar{x}$ = 2.03	.745	
Industry organizations $\bar{x}$ 2.74	.707	
Labour organizations $\bar{x}$ = 1.95	.728	
Think tanks $\bar{x}$ = 2.00	.783	
Universities $\bar{x}$ = 2.00	.715	
Aboriginal groups $\bar{x}$ = 2.37	.624	
Other non-governmental organizations $\bar{x}$ = 285	.685	

56.63% of the variance explained.
Mean scores are based on a 6-point scale where 1 = never and 6 = daily.

analysis illustrates two discrete network categories: internal and external. Interestingly, with respect to the lack of autonomy argument, respondents had very limited interaction with those actors outside of the provincial and territorial government, including other levels of government. The highly insular feature of the provincial and territorial policy workers' world is similar to the results found in Wellstead and colleagues' study (2009) of federal regional employees and suggests that a lack of contact from other intragovernmental actors, rather than from social actors, is the key attribute of this dimension of policy work.

Overall, this profile of the provincial and territorial task environments very much fits that of regional federal analysts described by Wellstead and colleagues (2007) although with two notable exceptions—a focus on, and use of, technical analysis and concerns about resource availability—where provincial and territorial analysts were closer in nature to their federal NCR counterparts. Provincial and territorial analysts generally were found to undertake the same approximate range of tasks, to focus on shorter-term firefighting activities rather than longer-term ones, and to operate largely in an internal, government-centred, network of actors, much as do federal regional employees.

In general these findings fit with the expectations and assumptions first mooted in Wellstead and colleagues (2011): that provincial and territorial analysts share many of the same work characteristics as federal regional employees and differ from federal NCR-based analysts mainly

in terms of the type and frequency of the different kinds of tasks they perform. This reinforces the idea put forward by Wellstead and colleagues (2011) that task allocation, is responsible for the observed differences in policy work found in multilevel states rather than level of government and legal jurisdictional roles, per se.

Evaluation of the three specific hypotheses laid out above, pertaining to the links between task allocation and institutional autonomy, however, requires use of a different methodology which can examine underlying relationships existing between the variables used in the frequency and principal component analysis. A structural equation model (SEM) developed using LISREL software explores these task and autonomy dimensions in greater detail.

Task Allocation and Institutional Autonomy: Structural Equation Modeling (SEM) Results

SEMs are 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 (Hayduk, 1987, 1996). SEM has become a very popular research tool in the social sciences because of its capabilities for understanding and predicting complex phenomena and is a powerful statistical tool for estimating the relationships between latent variables (theoretical constructs). Direct, indirect and total effects can be explored, as can integrative multivariate relationships (Kline, 2005) (see appendix A for details on the logic of SEM methodology).

Table 8 sets out the variables used in the SEM analysis. The interrelationships between these are then set out in Table 9 and represented pictorially in Figure 1.

The model's final likelihood estimates (Table 9 and Figure 1) 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.

In order to evaluate hypotheses H1-H3, we first examined the impact of the four exogenous variables related to work type (RESEARCH, IMPLEMENT, STRATEGY, and EVALUATE) on the task areas (TECHNICAL, ROUTINE, FIRE, and LONG), the two networks (EXTERNAL and INTERNAL) and the BARRIERS identified in Table 4. The most notable result from the RESEARCH group was the extent to which they

TABLE 8
Variables Used in the LISREL Model

Variable Label	Description	Mean Score	SD
Exogenous variables			
RESEARCH	Undertake research activities	3.82	.838
IMPLEMENT	Undertake implementation activities	2.56	.909
STRATEGY	Undertake strategic activities	3.37	.806
EVALUATE	Undertake evaluative activities	2.90	1.089
Endogenous variables			
TECHNICAL	Involved in technical issues	4.39	.985
ROUTINE	Involved in routine issues	2.39	1.553
INTERNAL	Nature of networks is internal	2.02.	.930
EXTERNAL	Nature of networks is external	3.40	.940
FIRE	Deal with immediate issues (e.g., firefighting) 1 = never; 6 = daily	4.65	1.29
LONG	Deal with long-term issues 1 = never; 6 = daily	4.12	1.46
SKEPTICS	Policy making is more influenced by politics1 = strongly disagree; 5 = strongly agree	3.72	.738
BARRIER	Sum of barriers faced in work activities	.14	.010
CAPACITY	Perceived policy capacity 1 = strongly disagree; 5 = strongly agree	3.21	1.03

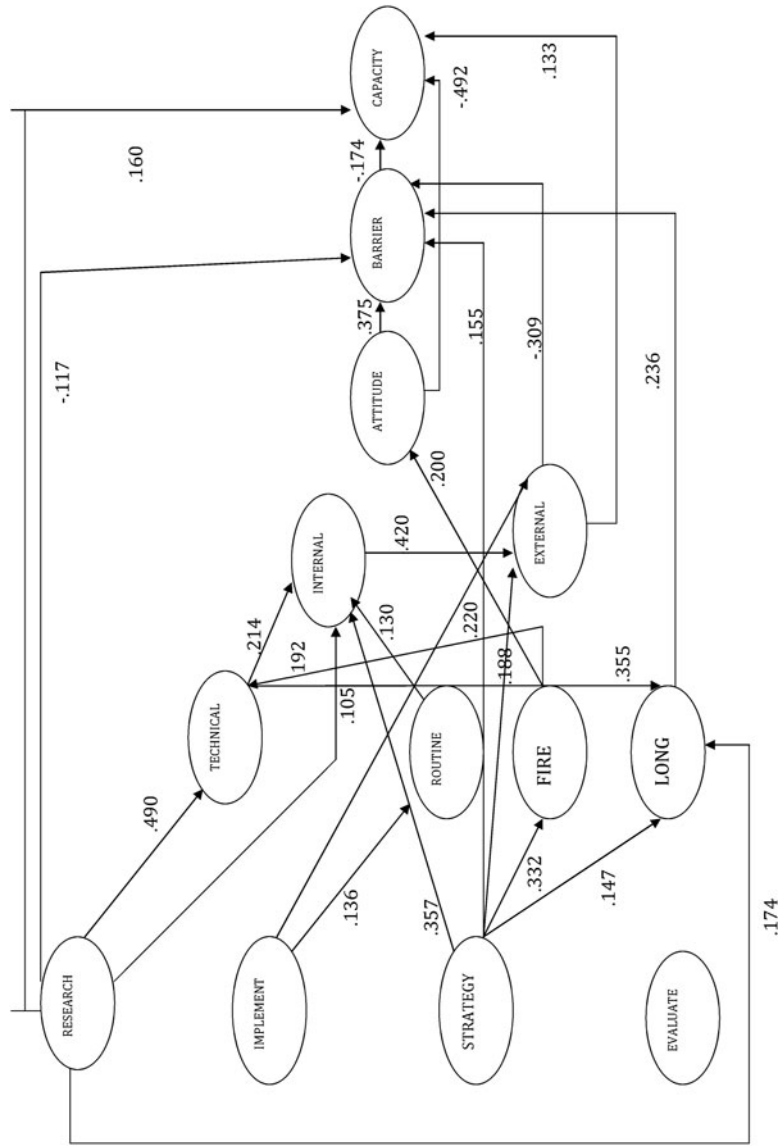

FIGURE 1
SEM Results

TABLE 9
Structural Equation Model Maximum Likelihood Estimates

Maximum Likelihood Estimates				
Direct Effect from	To	Effect	t-value	Standardized Effect
RESEARCHER				
	TECHNICAL	.580	9.580	.490
	INTERNAL	.116	3.923	.105
	LONG	.315	5.319	.174
	BARRIERS	−.022	−1.548	−.117
	CAPACITY	.157	3.002	.160
IMPLEMENT				
	ROUTINE	.240	2.561	.136
	INTERNAL	.111	3.660	.110
	EXTERNAL	.216	3.477	.220
	FIRE	.031	2.002	.022
	CAPACITY	.024	2.389	.026
STRATEGY				
	TECHNICAL	.079	3.368	.064
	INTERNAL	.414	6.481	.357
	EXTERNAL	.212	2.927	.188
	ATTITUDE	.054	2.917	.066
	FIRE	.546	6.391	.332
	LONG	.279	2.685	.147
	BARRIER	.030	1.963	.155
TECHNICAL				
	INTERNAL	.199	4.256	.214
	LONG	.542	6.249	.355
ROUTINE				
	TECHNICAL	.019	2.488	.031
	INTERNAL	.004	2.150	.130
	ATTITUDE	.013	2.292	.032
INTERNAL				
	CAPACITY	.160	3.227	.180
EXTERNAL				
	INTERNAL	.432	8.275	.420
	BARRIER	−.053	−5.536	−.309
	CAPACITY	.122	4.325	.133
ATTITUDE				
	BARRIER	.014	6.324	.375
	CAPACITY	−.629	−8.354	−.492
FIRE				
	TECHNICAL	.145	3.937	.192
	ROUTINE	.029	2.894	.041
	ATTITUDE	.098	3.269	.200
	BARRIER	.007	2.069	.063
	CAPACITY	−.056	2.782	−.089
LONG				
	BARRIER	.024	4.401	.236
	CAPACITY	−.022	2.548	−.041
BARRIER				
	CAPACITY	.921	−3.134	−.174

undertook technical level work (TECHNICAL) (γ = .490). The exogenous variable (EVALUATE) representing evaluation-type activities played no significant role in the model meaning that evaluation activities did not affect the other dependent variables identified as important in understanding policy work and policy capacity.

Those who were implementers (IMPLEMENT) were, as hypothesized in H1 and H2, more involved in routine activities (γ = .136) and were engaged externally (EXTERNAL) (γ = .220). Also as hypothesized (H2), those involved in strategic activities (STRATEGY) were more likely be inside players with strong links to internal networks (γ = .357) (INTERNAL). However, contra hypothesis 2, the model revealed that those who undertook strategic activity were also heavily engaged in firefighting issues (FIRE) (γ = .332). With respect to H3, the analysis confirmed that those engaged in strategic analysis faced more perceived barriers (γ = 155).

This SEM analysis shows that differences in tasks (implementation and strategic) and network interaction (internal versus external) are significant in distinguishing different types of policy work and are critical independent variables in understanding the nature of policy work in Canada and, by implication, many multilevel governance systems. The task areas in the two levels of jurisdiction differ considerably in terms of the complexity of work undertaken, the temporal nature of the issues faced and the extent of barriers analysts faced in their work. However, the relationship between task allocation and level of government is not straightforward, since federal regional analysts share many of the same characteristics with provincial and territorial ones and analysts undertaking specific kinds of tasks, such as implementation, share many similarities which cut across jurisdictional boundaries. Significantly, however, differences in network interactions were also revealed in the analysis, with subnational analysts and regional analysts engaging mainly in internal networks, supporting the idea that the degree of autonomy from internal actors is a significant factor affecting policy work and lies behind the differences in task orientations identified.

Summary and Conclusion

Utilizing a unique dataset derived from a survey of provincial and territorial policy analysts in Canada in 2008 and 2009 this article fills a gap in our knowledge concerning the activities of policy workers in multilevel states. It constructed a profile of Canadian provincial and territorial analysts and found that many similarities exist between their profiles and those of federal regional employees identified earlier by Wellstead and his colleagues (2007, 2009). The analysis confirmed that the nature

of task allocation at the different levels of government accounts for most of the differences uncovered between national and subnational analysts and traces these differences in tasks to the extent of institutional autonomy enjoyed by analysts.

The analysis suggests that policy work in the provinces and territories is structured in a broadly similar fashion to the federal regional situation and policy workers at the subnational level of government share many of the same attitudes and values as their federal regional, but not national capital-located, counterparts. Compared to Wellstead and colleagues' findings (2011) the results of the frequency and principal components analysis (PCA), and SEM, analyses provide a richer understanding of subnational policy work and its relationship to that practised at the federal level.

Both autonomy and task allocation in policy work were found to be significant factors affecting policy analytical capacity in general, an insight with significant implications for understanding and improving national and subnational policy making (Howlett, 2009a). While some provincial and territorial level analysts undertake tasks and share attitudes similar to their national central counterparts, the preponderance of external linkages, short-term issues and lack of resources encountered by policy workers at the subnational level tends to group them in the same "street-level" implementation-oriented category most regional analysts are located within, rather than in the "strategic planner" category found in Ottawa and highlighted in most policy texts and national-level studies (Wellstead and Stedman, 2010). This is consistent with the idea that the demand side of the policy work supply–demand equation (Howlett and Oliphant, 2010; Riddell, 2007), is a significant determinant of policy work and that the nature of the tasks demanded, and the work supplied, differs in the national capital from elsewhere primarily due to differences in the extent of autonomy policy workers there enjoy from other internal policy actors allowing them to engage more often in longer-term and more strategic forms of research and analysis.

Notes

1 All of these studies focus on professional policy workers in government and ignore both the "invisible civil service" (consultants) and those analysts who work outside of government in thinktanks, business associations and labour unions and elsewhere in the NGO sector (Abelson, 2007; Hird, 2005a; Murray, 2007; Speers, 2007; Stritch 2007).

2 Entries in Tables 2, 5, 6, and 7 are factor loadings in a principal component analysis (varimax rotation).

3 The following items and their mean scores were not loaded onto the factor analysis: negotiate with program managers on policy matters ($\bar{x} = 3.06$); consult with the public on policy matters ($\bar{x} = 1.97$); consult with stakeholders on policy matters ($\bar{x} = 2.76$);

brief high level decision makers such as cabinet ministers, ministerial staff, senior mangers ($\bar{x} = 2.85$).

4 The following items and their mean scores were not loaded onto the factor analysis: policy problems increasingly require strong technical expertise ($\bar{x} = 3.83$); those who have more authority in decision making usually have less specialized technical expertise ($\bar{x} = 3.80$); interest groups seem to have a greater influence in the policy-making process than they used to ($\bar{x}$ 3.57); regional policy making is largely reactive to directives developed by head office ($\bar{x}$ 3.71).

5 The following items and their mean scores were not loaded onto the factor analysis: issues that emerge as a result of governmental priorities in headquarters ($\bar{x} = 4.45$); issues that emerge as a result of public pressure on government ($\bar{x}$ 3.97).

6 The full 6-point scale included: 1=never, 2=yearly, 3=quarterly, 4=monthly, 5=weekly, 6=daily.

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Appendix A

SEMs contain three basic equations containing four matrices of coefficients and four covariance matrices. Equation 1 reveals all of the direct effects among the endogenous and exogenous concepts (or latent vari-

ables). Endogenous concepts are those concepts directly caused or influenced by other concepts, whereas exogenous concepts always act as the cause. The analysis of the covariance structures procedure assumes that the "true" dependent variables (endogenous), η, are related to the ξ, true independent (exogenous) variables, by a system of structural equations (equation 1).

$$\text{Structural equation model: } \eta = B_{\eta} + \Gamma\xi + \zeta \qquad \text{(equation 1)}$$

In this equation, B is a coefficient matrix of relationships among the dependent variables, Γ is the matrix of causal effects of the independent on the dependent variables, and ζ is a residual vector for errors in equations.

By setting various elements of the β and Γ matrices to zero, the researcher can designate the absence of causal relationships. Similarly, the presence or absence of correlations among elements of ζ can be controlled as indicated by theoretical requirements.

$$\text{Measurement model for } y = \Lambda_{y}\xi + \varepsilon \qquad \text{(equation 2)}$$

$$\text{Measurement model for } x = \Lambda_{x}\xi + \delta \qquad \text{(equation 3)}$$

There are two measurement equations. In equation 2, y is a $p \times 1$ vector of observed indicators of dependent latent variables (η); In equation 3, x is a $q \times 1$ vector of observed indicators of the independent latent variables (ξ); ε is the $p \times 1$ of measurement errors in y; δ is the $q \times 1$ vector measurement errors in x; Λ_{y} is a $p \times m$ matrix of coefficients of the regression of y on η and Λ_{x} is a $q \times n$ matrix of coefficients of the regression of x on ξ In order to identify the model, selected parameters in the equations must be constrained.