

Policy Analysts in the Bureaucracy Revisited: The Nature of Professional Policy Work in Contemporary Government

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Thirty-five years ago Arnold Meltsner observed that professional policy analysts in the U.S. government undertook several roles in the policymaking process, the most common of which involved "technical" information processing while others were more "political" in nature. Although still prescient, more recent empirical studies of professional policy work have found little evidence of the predominance of technicians in the ranks of analysts employed in public policy bureaucracies. However, only very weak and partial information exists on the situation in most countries, and descriptions of the nature of policy work often remain primarily normative and lacking in empirical referents. This article reexamines the duties and nature of contemporary professional policy analysis in the Canadian bureaucracy. It reveals that contemporary policy work is constituted by more complex and multisided practices than Meltsner and his followers described. These findings are significant for those wishing to understand, and improve, the nature of policy work in contemporary government.

Keywords: Public Policy, Theories of Public Policy, Public Administration, Bureaucracy, Policy Analysis, Policy Analytical Capacity.

Hace treinta y cinco años Arnold Meltsner observó que los analistas legislativos profesionales en el gobierno de los Estados Unidos se encargan de diferentes tareas en el proceso legislativo, el más común involucraba el proceso de información "técnica" mientras que otros eran de una naturaleza más "política". Estudios empíricos más recientes del trabajo profesional legislativo han encontrado poca evidencia del predominio de técnicos en puestos analíticos en las burocracias del sector público. Sin embargo, existe tenue y parcial información sobre la situación de la mayoría de los países y la

descripción de la naturaleza del trabajo legislativo permanece normativa y carente de referentes empíricos. Este estudio reexamina los deberes y naturaleza de analistas legislativos profesionales en la burocracia Canadiense y revela que el trabajo legislativo contemporáneo está constituido por prácticas más complejas de las que Meltsner y sus partidarios describieron. Estos hallazgos son significativos para aquellos que deseen comprender y mejorar la naturaleza del trabajo legislativo en la gobernabilidad contemporánea.

Studying the Nature of Policy Work

Professional policy work in government is a difficult subject to categorize and define (Colebatch, Hoppe, and Noordegraaf 2011). At its heart, policy analysis is what Gill and Saunders (1992, 6-7) characterized as "a method for structuring information and providing opportunities for the development of alternative choices for the policymaker." This involves providing information or advice to policy makers concerning the relative advantages and disadvantages of different policy choices (Mushkin 1977; Wildavsky 1969).

Exactly how this is done, and how it should be done, however, is the subject of continuing debate and research in public policy studies (Colebatch 2006). This is an especially vexing problem since more recent empirical studies of how policy research and analysis is actually conducted in governments and how its results are generated, interpreted, and utilized by political decision makers have consistently shown the nature of policy work to be quite different from the models proposed by many early policy scholars who worked on the subject (Colebatch 2006). The merit of continuing to use earlier classification schemes to inform empirical studies and pedagogical practices (Geva-May and Maslove 2006, 2007), of course, depends on the continuing veracity of these categories outside of their original time and place, and on these schemes' ability to continue to accurately capture the key components of professional policy work in contemporary governments, subjects which prominent critics in the United States and elsewhere have called into question (Colebatch 2006; Colebatch and Radin 2006; Radin 2000).

Many early works, for example, promoted the idea that many professional analysts in government act, or should act, as "technicians" processing specialized information on subjects in which they share some expertise (Meltsner 1975, 1976). While there can be a range of methodologies used in the provision of such policy advice, many proponents of enhanced policy analysis remained firmly centered on the use and promotion of a specific analytical toolkit based on microeconomics, quantitative methods, and organizational analysis, which they argued could be productively applied by astute policy analysts to provide optimizing solutions to most substantive policy problems (Mintrom 2007; Weimer and Vining 1999). Under this

influence, education and training of policy workers has for many years been largely a matter of familiarization with standard technical tools such as supply-demand, cost-effectiveness, and cost-benefit analysis, along with the study of cases, workshops, simulations, or real-world projects designed to illustrate the use and application of these tools in specific circumstances and contexts (Geva-May and Maslove 2007; Gow and Sutherland 2004; Jann 1991; Wildavsky 1979).

But evidence from more recent research suggests that many analysts are less technical experts than "process generalists" having very little training in formal policy analysis techniques such as cost-benefit analysis or risk assessment and who rarely deal with policy matters in the substantive areas in which they may have been trained (Feldman 1989; Page and Jenkins 2005). Similarly, while early studies labeled some such process-oriented work as "political" (Banfield 1977; Dror 1967; MacIntyre 1977; May 1989; Meltsner 1976; Tribe 1972), later work suggests these activities are more nuanced and comprise a large set of interrelated practices ranging from enhancing stakeholder participation in policy deliberations and furthering democratic discourses to mediating inter- and intrajurisdictional turf battles among policy actors and players (Aberbach and Rockman 1989; Adams 2004; Forester 1983; Howlett 2009a; Jenkins-Smith 1982; Mayer, van Daalen, and Bots 2004; Mintrom 2007; Shulock 1999; Weber and Khademian 2008; Workman, Jones, and Jochim 2009).

More and better empirical research is required to better inform both policy pedagogy and practice (Colebatch and Radin 2006). This is essential not only for those who simply wish to better understand the operation and functioning of professional bureaucratic policy analysis but also for those who wish to assess and evaluate existing activities more accurately to improve training and recruitment practices, enhance analytical capacity, and, ultimately, improve analysis and policy outcomes (Anderson 1996; Australian National Audit Office 2001; Di Francesco 1999, 2000; Hollander and Prince 1993; Nicholson 1997; State Services Commission 1999).

This article presents the findings of one such recent large-scale empirical investigation into the policy practices of Canadian policy analysts in The findings highlight the multidimensional nature of contemporary professional policy work and its varied and complex nature (Koliba and Gajda 2009; Kothari, MacLean, and Edwards 2009). The findings show that policy analysis and policy work in contemporary governments are considerably more diverse than early studies portrayed. Rather than continue to utilize the results of studies from an earlier age which, while perhaps prescient, may no longer accurately describe the nature of the actual work carried out by policy analysts in the bureaucracy, policy study, training, and analytical theory and pedagogy should be amended to better reflect the real-world conditions and realities present-day studies describe.

Overcoming Obstacles to the Better Understanding of the Nature of Policy Work in Government

Current policy studies face two problems when it comes to analyzing and understanding the nature of professional policy work in government. First, one way or another, and either directly or indirectly, many contemporary students of policy analysis continue to rely on very early studies to provide empirical referents to the kinds of analysis actually practiced in government. Numerous studies of policy analysts in the bureaucracy, for example, have relied on Arnold Meltsner's path-breaking early 1970s studies of a small set of Washington, DC, analysts (Meltsner 1975, 1976). In these works Meltsner compressed and highlighted several variables in distinguishing four different kinds of work undertaken by analysts according to their level of competence and skill in dealing with either or both of the technical or political elements he uncovered in the analytical tasks they faced: classifying analysts as "technicians" or "politicians" if they focused on one of these items or as "entrepreneurs," combining both talents and, finally, "pretenders" (a subtype Meltsner actually found no examples of in his interviews), lacking both sets of skills.

These early insights into the nature of policy work practiced in governments heavily influenced many succeeding observers of policy practices who continued to rely on these works in justifying their own categories and conclusions. In the first instance, students of professional policy work in governments like Dluhy (1981) and Mushkin (1977), for example, simply adopted or slightly modified Meltsner's framework, identifying major clusters of analysts as "advocates," "technicians," and "pragmatists," while others put forward more complex modifications yet continued to retain the Meltsner model's basic outlines and shape. Thus, as late as 2006 in the case of the Netherlands, Hoppe and Jeliazkova (2006), like Durning and Osuna (1994) before them in the case of several U.S. states, identified five types of analysts: the process director, the policy philosopher, the policy advocate, the neo-Weberian (or objective technician), and the expert advisor. Like Meltsner, Hoppe and Jeliazkova argued these could be fit into a twodimensional space in which one dimension involved issue-specific technical expertise, while the second involved distinctions between professional and political loyalties and activities. Although astute, however, Meltsner's findings were developed based on observations gleaned from 116 interviews with federal government policy workers in the United States conducted over 40 years ago (1970-71) and their continued contemporary relevance is uncertain (Meltsner 1976, 14).

Second, existing studies of policy work have examined only a very limited range of cases of governments outside the United States. Some policy analytical practices have been studied in cases, such as the United Kingdom (Page and Jenkins 2005; Prince 1983), Australia (Hawke 1993; Uhr and Mackay 1996; Waller 1992, 1996; Weller and Stevens 1998), New Zealand (Boston *et al.* 1996;

Hunn 1994; State Services Commission 1999), France (Rochet 2004), and Germany (Fleischer 2009; Wagner and Wollman 1986; Wollman 1989), but the range of cases remains quite limited. Nevertheless, even here the differences found to exist between the United States and these jurisdictions are revealing. On the basis of interviews with mid-level, London-based U.K. policy analysts in 2005, for example, Page and Jenkins (2005, 168) found policy work in the United Kingdom to differ substantially from the technical practices Meltsner found in the United States. As they argued,

[t]he broad features of our characterization of UK policy bureaucracy are that policy officials at relatively junior levels are given substantial responsibility for developing and maintaining policy and servicing other, formally superior officials or bodies, often by offering technical advice and guidance. These people are not technical specialists in the sense that they develop high levels of technical expertise in one subject or stay in the same job for a long time. They are often left with apparently substantial discretion to develop policy because they often receive vague instructions about how to do their jobs, are not closely supervised, and work in an environment that is in most cases not overtly hierarchical.

These two sets of problems suggest that additional empirical and comparative studies are needed to bring more light to the subject of the nature of professional policy work in modern governments and to move the study of policy work and its pedagogy beyond early ruminations on the subject. This article helps to overcome these obstacles by assessing the results of several large-scale surveys of the activities of core government policy analysts in Canada, or what Page and Jenkins (2005) refer to collectively as the "policy bureaucracy," contrasting these findings with those taken from the traditional Meltsner-inspired U.S.-centered approaches to the subject. The data present a more precise picture of the work world of contemporary professional policy analysts than is typically found in the literature on the subject and the statistical tests developed here allow the more precise identification of the areas where analysts work, the tasks associated with their jobs, the skills they use in these tasks, the kinds of issues they dealt with, and the nature of their day-to-day interactions. The implications of the differences found between these presentday and older studies for policy pedagogy, management, and theory are set out in the concluding section.

Data and Methods

To probe the key dimensions of policy work in Canada, a survey instrument consisting of a 64-item questionnaire was developed divided into six main topic areas: demographic characteristics; job experience; education and training; day-to-day duties; techniques; data employed; and attitudes toward policy making

and politics. This followed Radin's (1997) admonition that better empirical assessments of policy work require investigation of at least five elements: (1) the scale and location of policy analysis functions; (2) the political environment surrounding the activity; (3) the analytic methodologies used; (4) the availability and use of information and data; and (5) the dimensions of policy decisions. Batteries of survey questions addressed the nature and frequency of the tasks undertaken by professional policy workers in government, the range and frequency of the techniques they used in their work, the extent and frequency of their interactions with other policy actors, and their attitudes to and views of various aspects of policy-making processes, as well as a range of questions addressing their educational, previous work, and on-the-job training experiences. It also contained standard questions relating to age, gender, and socioeconomic status.

The questionnaire was delivered through a web-based survey of 3,856 Canadian provincial and territorial government policy analysts working in every Canadian subnational jurisdiction carried out by the authors in early 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" appearing in job titles or descriptions. In some cases, additional names were added to lists from hard-copy sources, including government organization manuals. In other cases, lists of 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 e.g., Laumann and Knoke 1987; Zafonte and Sabatier 1998). A total of 1,357 usable returns were collected for a final response rate of 43.3 percent (see Appendix for a breakdown of responses by province and territory breakdown).1

Combined, the data generated by the surveys provide the basis required to construct an accurate empirical profile of the background and activities of government policy workers which can be compared and contrasted with Meltsner's findings (Howlett 2009b, 2009c). From the 64 survey questions, a very large dataset containing several hundred variables was analyzed using SPSS 16.0. A profile of contemporary policy work was constructed employing exploratory factor analysis, a common statistical method used to describe variability among observed variables in terms of a potentially lower number of unobserved variables known as factors. The internal consistency of the factored variables was estimated using reliability analysis and Cronbach's α (alpha) statistic.

¹ Due to the use of a different (snowball) survey methodology in Quebec that generated a much smaller sample, the 130 responses from that province are excluded from the analysis that follows. However, a separate analysis of the results from the Quebec survey identified a similar pattern of responses to those found in the other twelve provinces and territories (Bernier and Howlett 2011).

Findings

Analytical Skills Employed and Tasks Performed

First, the study revealed a larger set of analytical tasks and activities undertaken by policy workers than is found in the Meltsner model. Twenty-five survey variables dealt with the nature of the tasks performed by analysts, and a factor analysis of these variables (Table 1) revealed that analysts undertake a much wider range of activities under the rubric of "analysis" than is usually assumed or asserted in the literature on the subject.

Nine distinct sets of job duties were found related to formulation, consultation, implementation, financial analysis, evaluation, data management, communications, environmental assessment, and the use of legal skills and work. The largest number of analysts were found to engage in formulation (28.04 percent), followed by consultation (21.56 percent), evaluation (18.92 percent), and implementation (18.67 percent), with the smallest number engaging in data management (6.25 percent).

Types of Analytical Work Performed

Prima facie, this reveals a more complex picture of analytical work duties in government than Meltsner found in the U.S. federal government in the early 1970s. However, analysts' jobs, as both Meltsner's followers (Dluhy 1981; Feldman 1989) and his critics (Hoppe 1999; Mayer, van Daalen, and Bots 2004; Radin 2000) have noted, can combine these tasks in different combinations, and in Table 2 the results are presented of a second factor analysis of 15 policy-related jobs performed by Canadian analysts.

Table 2 shows a more familiar, Meltsner-like, pattern as four distinct types of analytical work emerge. However, unlike Meltsner's technical-political distinction, these four are not variations on these two dimensions of policy jobs but rather relate to tasks linked to policy appraisal, implementation, strategic brokerage, and formal evaluation. The mean scores (where 1 = never and 6 = daily) indicate that policy appraisal, namely intelligence gathering was the most heavily undertaken task ($\bar{x} = 3.82$) followed by strategic brokerage activities ($\bar{x} = 3.37$). Evaluation and implementation were less frequently undertaken activities ($\bar{x} = 2.90$ and $\bar{x} = 2.56$, respectively).

Nature of Analytical Techniques Employed

Taken together, these two tables underscore the existence of considerably more variation in analytical tasks and jobs than is typically asserted by policy scholars or reflected in much policy pedagogy. It is in keeping, however, with other contemporary comparative analyses which have similarly identified a more complex range of duties and activities than those uncovered by Meltsner in his early work (Mayer, van Daalen, and Bots 2004; Page and Jenkins 2005; Thissen and Twaalfhoven 2001).

	Table 1	. Tasks Per	formed by Ana	alysts in Pro	ovincial and	ble 1. Tasks Performed by Analysts in Provincial and Territorial Governments	ernments		
	Component								
	Formulation (Cronbach's $\alpha = .831$) (n = 694)	Consultation (Cronbach's $\alpha = .725$) (n = 549)	Implementation (Cronbach's $\alpha = .638$) (n = 524)	Finance (Cronbach's $\alpha = .608$) (n = 331)	Evaluation (Cronbach's $\alpha = .575$) (n = 548)	Data Management (Cronbach's $\alpha = .662$) (n = 140)	Communication (Cronbach's $\alpha = .537$ (n = 340)	Assessment (Cronbach's $\alpha = .561$) (n = 322)	Legal Work (Cronbach's $\alpha = .541$) (n = 354)
Mean score Tasks underfalen	$\bar{x} = .2804$	$\bar{x} = .2156$	$\overline{x} = .1867$	$\bar{x} = .1082$	$\bar{x} = .1892$	$\bar{x} = .0625$	$\overline{x} = .1571$	$\bar{x} = .1389$	$\overline{x} = .1495$
Formal legislative or executive									.790
Legal consultation								ţ	.815
Environmental assessment Environmental scans								.773	
Communications and media relations							.601		
Report writing or editing							.713		
Report presentation						>30	.717		
Data management						.851			
Auditing and evaluation					.579				
Formal policy or program evaluation					.776				
Informal policy or program					.700				
Cost-benefit analysis				.602					
Budget analysis				.800					
Finance				.776					
Program development			.745						
Program delivery and implementation			.834						
Program administration			.613						
Public participation design		.755							
Public consultation		.837							
Stakeholder consultation		.723							
Policy analysis	.749								
Formulating policy options	608								
Assessing policy options	.792								
Note: 66.34% of the variance explained.	ained.								

	Component			
	Appraisal (Cronbach's $\alpha = .868$)	Implementation (Cronbach's $\alpha = .614$)	Strategic Brokerage (Cronbach's $\alpha = .731$)	Evaluation (Cronbach's $\alpha = .856$)
Mean score Skill sets	$\overline{x} = 3.82$	$\overline{x} = 2.56$	$\overline{x} = 3.37$	$\overline{x} = 2.90$
Collect policy-related data or information	.843			
Conduct policy-related research	.841			
Identify policy issues	.662			
Identify policy options	.691			
Appraise policy options	909.			
Implement or deliver policies or programs		009.		
Negotiate with stakeholders on policy matters		.923		
Consult with the public on policy matters		.542		
Negotiate with stakeholders on policy matters		.923		
Prepare reports, briefs, or presentations for			.684	
decision makers on policy matters				
Consult with decision makers on policy			.697	
Brief lower- or mid-level policy managers			.490	
Brief high-level decision makers, such as			.780	
cabinet ministers, ministerial staff, and				
Evaluate policy results and outcomes				.836
Evaluate policy processes and procedures				.859
Notes: 67.28% of the variance explained.				

Mean scores are based on a 6-point scale where 1 = never and 6 = daily.

The different foundations of these four basic types of analysis from those associated with the Meltsner-inspired literature is underscored by a factor analysis of a third set of variables which examined the frequency of use by respondents of over 40 specific analytical techniques in their day-to-day work. Table 3 shows clusters of distinct sets of techniques: "classical" policy analytical ones related to evaluation such as cost—benefit analysis, sociological techniques such as social network analysis and various survey and problem-mapping techniques, consultative techniques, and the use of more sophisticated mathematical modeling tools such as the Markov-chain modeling.

This analysis finds some support for Meltsner's two types of "politician" and "technician" since "evaluative" techniques and "consultative" ones are loosely related to Meltsner's "technical" and "political" dimensions. The other tasks practiced by analysts, however, such as formal modeling and social network mapping, do not correspond to those normally associated with Meltsner's subtypes.

Who Do They Interact With?

Similarly, when asked about their networking activities, the core of Meltsner's "political" dimension, a more complex picture than that envisioned by most students of policy analytical work again emerged. A factor analysis of the frequency of respondent's contacts with 13 different types of contactees (Table 4) produced two key factors depending on whether analysts dealt in the main in their work with external actors or internal ones, a distinction lacking in Melstner's work.

The contacts with internal networks based on a five-point scale, were notably stronger ($\bar{x} = 3.40$) than with those outside of the government ($\bar{x} = 2.02$), which, as Meltsner (1976, 177-96) indeed argued, suggests that many analysts are largely agency-centered or "desk-bound" and prepare, review, or manipulate financial and other kinds of data, interacting most often with other bureaucratic government actors. Another clearly identifiable set of tasks, however, involves interaction with outside actors such as other governments and nongovernmental organizations of various kinds. Both sets of tasks require analysts with "political skills," such as bargaining, the ability to build support, network, negotiate, and compromise, but the content of these actions will be very different depending on the group with which the interaction takes place.

The Nature of the Most Common Issue Types

A fourth theme investigated the kinds of issues with which were involved. This was assessed by asking analysts about the complexity of their day-to-day tasks, as well as the extent to which issues could be dealt with using technical expertise or activities such as consultation. This analysis should reveal whether or not analysts were engaged in largely "technical" or "political" issues as Melstner suggested.

	Table 3. Common Analytical Techniques Used	ical Techniques Used		
	Evaluative (Cronbach's $\alpha = .714$) (n = 1,148)	Sociological (Cronbach's $\alpha = .565$) (n = 681)	Consultative (Cronbach's $\alpha = .552$) (n = 1,336)	Mathematical (Cronbach's $\alpha = .288$) (n = 182)
Mean score	$\overline{x} = .480$	$\overline{x} = .150$	$\overline{x} = .622$	$\overline{x} = .045$
Analytical techniques Development of sophisticated modeling tools Markov-chain modeling Monte Carlo techniques Brainstorming Consultation exercises Focus groups Free-form gaming or other policy exercises Problem mapping Decision/probability trees Process influence or social network diagrams Preference scaling Cost-effectiveness analysis Cost-benefit analysis Financial impact analysis	.713 .780 .740 .574	.550 .664 .596 .556	.640 .750 .712	. 587 . 698 . 695
Note: 47 2% of the variance explained				

Note: 47.2% of the variance explained.

Table 4. Nature of Contacts/Networks					
	External (Cronbach's $\alpha = .878$)	Internal (Cronbach's $\alpha = .808$)			
Mean score	$\overline{x} = 2.02$	$\overline{x} = 3.40$			
Nature of contacts					
Senior head, office-based management		.873			
Other head, office staff		.873			
Senior regional management		.637			
Central agencies		.721			
Municipal government departments	.646				
Federal departments in my region	.675				
Environmental/conservation-based groups	.745				
Industry organizations	.707				
Labor organizations	.728				
Think tanks	.783				
Universities	.715				
Aboriginal groups	.624				
Other nongovernmental organizations	.685				

The results set out in Table 5, however, show that three distinct clusters of issues exist, divided along both technical and consultative lines, as Meltsner (1976, 14-48) suggested, but also along a third dimension related to their routine or innovative nature. Again this reveals a dimension to contemporary policy work in government, which most existing studies have not sufficiently taken into account.

Conclusion

Professional policy analysts are well-known players in the day-to-day functioning of complex and multidimensional government decision-making systems. Yet, despite their prominence, what little is known concerning the work these actors perform is based, for the most part, on now-dated empirical studies drawn primarily from the United States.

Much thinking concerning the general nature of professional policy work in government has flowed from these early empirical studies as have pedagogical notions concerning what skills analysts should have to improve their practices and contribute toward better policy outcomes (Morçöl and Ivanova 2010). However, while the number of texts and articles proposing and reinforcing the use of standard technical analytical tools is legion, the number of empirical studies into the actual day-to-day practices of policy analysts is much smaller and, in many cases and countries, is either nonexistent or badly out-of-date (Colebatch, Hoppe, and Noordegraaf 2011; Colebatch and Radin 2006). As a

	Component		
	Complex Technical (Cronbach's $\alpha = .793$)	Consultative (Cronbach's $\alpha = .717$)	Routine
Mean score	$\overline{x} = 4.39$	$\overline{x} = 2.39$	$\overline{x} = 2.82$
Nature of issues			
Issues that have a single, clear, relatively simple solution		4 / 0	.962
Issues that demand input from society-based organizations		.865 128	
Issues that demand public consultation		.861	
Issues that require coordination with head office	.551		
Issues that require specialist or technical knowledge	.702		
Issues where it is difficult to identify a single, clear, simple solution	.814		
Issues for which data are not immediately available	608.		
Issues that demand the creation or collection of policy-relevant evidence	.758		
Warn 68 000% of the vorious explained			
Mean scores are based on a 6-point scale where $1 = \text{never}$ and $6 = \text{daily}$.			

result, the empirical basis for many prescriptions pertaining to the desirable forms of policy work remains very weak (Colebatch 2006). More accurate assessments of the actual policy analytical activities carried out by professional analysis in a range of different governmental contexts are needed, both to inform better understanding of the operation of policy advice systems and to better steer the training and recruitment of policy analysis professionals within them (MacRae 1991; Radaelli 1995).

The results of the study of a large group of Canadian analysts presented here help address some of these problems. They provide the data required for a more accurate assessment of the kinds of analysts found in contemporary governments and of what they do in their work. Using data from an up-to-date large-n survey of policy analysts, the study allows meaningful comparisons and contrasts to be drawn with previous, primarily U.S.-based data and findings.

The findings reported here confirm, as Meltsner suggested, that professional policy workers in government should not be treated as a homogenous group and that significant differences exist among analysts with respect to many important dimensions of their work. However, many aspects of this analytical work were found to differ from the dimensions highlighted in earlier studies of the subject. Analysts, for example, were found to practice as many as nine different policyrelated activities and to practice four general types of work that related to policy appraisal, implementation, strategic planning, and evaluation. Moreover, analysts were found to practice four common sets of analytical techniques ranging from consultation to mathematical modeling; to address at least three issue types; and to have different sets of contacts with actors within or external to governments from those typically described in the literature. This all suggests a richer and more nuanced set of analytical practices involved in policy work than many previous studies have postulated.

This kind of more precise information on the day-to-day work of policy analysts is required for studies of policy work and policy workers in government to advance. More accurately assessing the activities, skills, attitudes, and other aspects of the actual policy work carried out by professional policy analysts in government is a pressing need for both policy scholars, practitioners, and pedagogues (Brinkerhoff 2010; Brinkerhoff and Morgan 2010; Hawke 1993; Hunn 1994; Nicholson 1996), and large-n studies of the kind reported here help to clarify what analysts actually do and, by implication, how they can be managed and trained to do it better.

Appendix
Provincial and Territorial Survey Sample Sizes and Completion Rates

Province	Initial Mail List Size	Refusals and Rejected E-Mails	Valid Partial Completions	Complete	Response Rate
ВС	513	51	30	194	48.5
Alberta	368	23	8	112	34.8
Saskatchewan	246	27	13	80	42.4
Manitoba	161	20	6	98	73.7
Ontario	1,613	162	52	557	41.9
Québec*	250	0	44	86	52.0
New Brunswick	162	15	4	62	44.9
Nova Scotia	181	20	15	83	44.1
PEI	27	6	1	4	23.8
Newfoundland	139	24	16	55	61.7
Yukon	75	8	6	58	95.5
NWT	80	2	2	41	55.1
Nunavut	41	8	2	13	45.4
TOTAL (excluding Quebec)	3,856	366	155	1,357	43.3

Note: * Snowball sample methodology—data excluded from totals and from subsequent tables. See footnote 1.

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