

Peering into the black box of government policy work: The challenge of governance and policy capacity

Halina Sapaha

Faculty of Human and Social Development, School of Nursing, University of Victoria – Email address: hsapaha@uvic.ca

Adam Wellstead

Department of Social Sciences, Michigan Technological University - Email address: awellste@mtu.edu

Bryan Evans

Department of Politics and Public Administration, Ryerson University - Email address: b1evans@politics.ryerson.ca

Abstract

There have been calls for more diffused policy advisory systems where a plurality of actors, particularly actors from non-governmental organizations (NGOs), engage with government in deliberating policy interventions to address collective problems. Previous research has found that government-based policy workers tend to have low levels of interaction with outside actors. However, very little is understood about the nature of these interactions. To shed light on this important relationship, a multi-regression structural equation model examines the nature of government-based policy work across three Canadian provinces. From an online survey of 603 Canadian provincial government policy workers, we develop six hypotheses that focus on the drivers of policy capacity and their degree of interaction with non-governmental organizations. The results revealed that increased interaction by the respondents with stakeholders was an important determinant for inviting stakeholders to policy discussions and led to increased perceptions of policy capacity. However, the ongoing trend of politicization in policy work had a dampening impact on overall policy capacity. More importantly, it appears that undertaking more evidence-based policy work did not lead to a greater policy capacity perception or interaction with stakeholder groups. The survey design and model development have the potential to be replicated in other jurisdictions.

Key words: policy capacity, policy work, structural equation model, non-government organizations, Canada

Résumé

Une dynamique de recherche existe sur les systèmes diffus de conseil politique pour régler les problèmes collectifs. Ce phénomène regroupe une pluralité d'acteurs, incluant les gouvernements mais également des acteurs issus d'organisations non-gouvernementales (ONG). Des études précédentes ont révélé que les élaborateurs de politiques publiques tendent à avoir des interactions faibles avec des acteurs extérieurs. Cependant, on connaît peu de choses sur la nature de ces interactions. Pour faire la lumière sur cette question, un modèle par équations structurelles (de régression multiple) examine la nature de l'élaboration des politiques dans trois provinces canadiennes. À partir d'un sondage en ligne auprès de 603 élaborateurs de politiques publiques provinciaux canadiens, nous envisageons six hypothèses portant sur les moteurs de la capacité d'élaboration de politiques et sur leur degré d'interaction avec les organisations non-gouvernementales. Les résultats ont révélé que l'augmentation de l'interaction entre les répondants et les parties prenantes a été un déterminant important pour que les parties prenantes soient invitées aux discussions politiques et cela a également entraîné une augmentation de la perception de la capacité en matière d'élaboration de politiques. Toutefois, la tendance à la politisation a eu un effet modérateur sur la capacité d'élaboration de politiques. Plus important encore, l'élaboration des politiques fondées sur des données factuelles n'a pas augmenté la perception de la capacité d'élaboration de politiques. En outre, l'élaboration de politiques reposant davantage sur des données factuelles n'a joué aucun rôle dans l'interaction avec les groupes intéressés. Le plan de sondage et le développement du modèle statistique peuvent être reproduits dans d'autres administrations.

Mots-clés : capacité d'élaboration de politiques ; élaboration de politiques ; modèle par équations structurelles ; organisations non-gouvernementales ; Canada

Introduction

Various analysts have raised concerns respecting declining research, evaluation and analytical capacities within the public service (Baskoy et al., 2011; Edwards, 2009; Christensen & Laegreid, 2001; 2005; Peters, 2005; Rhodes, 1994). Typically, the decline is attributed to reforms associated with policy dismantling and the retrenchment of the state (Bauer et al., 2012). With respect to policy analysis and

advice, this shift has resulted in a more diffused policy advisory system where state and non-state actors engage in deliberating policy interventions. While many welcome greater participation by societal-based policy actors, this new decision-making environment may be problematic for on-the-ground policy work. Often overlooked is the unequitable distribution of policy capacity throughout the system. Many non-governmental organizations (NGOs) lack the analytical resources to effectively influence the policy processes. This limitation may be exacerbated by the movement toward a more evidence-based policy-making process, which places a premium on the possession of analytical skills (Howlett, 2009b).

Nonetheless, there is anecdotal evidence that NGOs are becoming more active in the policy process and that they employ two engagement strategies. First, by pursuing an “insider” strategy where the objective is to “attain influence by working closely with ... governments by providing policy solutions and expert advice” and, second, through an “outsider” strategy of campaigning to mobilize public opinion in support of a policy change (Gubrandsen & Andresen, 2004, p. 56). There are several components of policy capacity relevant to this research. First, the policy network environment – especially the department’s position relative to other players in the policy development process; second the human inputs – the number of people involved in policy work, their education, career experience and skills; and third, informational inputs, namely the range and quality of the data available to inform the decision-making process (Edwards, 2009, p. 291–92).

By integrating the insights of Edwards (2009) with Howlett's (2009) definition we construct an additional frame of 'how' and through what processes the government policy worker applies (or does not apply) these skills and techniques and their relationships with non-governmental actors. In this paper, a multi-regression structural equation model examines the nature of government-based work across three Canadian provinces from an online survey of policy analysts. We develop six hypotheses that focus on the drivers of policy capacity and the degree of interaction with NGOs.

The methodology employed in this study could be replicated in any jurisdiction. Two key literatures from which the six hypotheses are derived are examined: scholarship examining policy work and policy capacity literature, and insights by those in the NGO policy field. After introducing the hypotheses, and outlining the data and methods, the structural equation model's endogenous and exogenous variables are described. This section also provides descriptive results of these variables. The results of the model are presented which is followed by a discussion of the larger implications of the findings, including avenues for future research.

Literature Review

Policy capacity is understood as "the ability of a government to make intelligent policy choices and muster the resources needed to execute those choices" (Painter &

Pierre, 2005, p. 255). Howlett (2009b) formulated a more nuanced

conceptualization of 'policy analytical capacity', namely the:

amount of basic research a government can conduct or access, its ability to apply statistical methods, applied research methods, and advanced modeling techniques to this data and employ analytical techniques such as environmental scanning, trends analysis, and forecasting methods in order to gauge broad public opinion and attitudes, as well as those of interest groups and other major policy players, and to anticipate future policy impacts (p. 162).

Policy capacity is also concerned with the discussion of alternatives and managing competing demands of diverse stakeholders (Hoppe, 1999; Hajer & Wagenaar, 2003; Goetz & Wollmann, 2001). State and non-state policy actors are increasingly collaborating in a deliberative process of policy analysis, which includes determining "points of solidarity in the joint realization that they need one another to craft effective political agreements" (Goetz & Wollmann, 2001, p. 3). A 2010 New Zealand government study, examining the improvement of policy advice, noted that such advice is no longer the monopoly of public servants and is increasingly contested by non-governmental policy actors. Consequently, public servants must accommodate "the contribution that can be made to analysis and advice by the wider policy community" (Government of New Zealand, 2010, p. 1-2).

Such public engagement processes are intended to bring NGO actors into the day-to-day activities of government agencies and departments (Rowe & Frewer, 2005, p. 253). Consequently, there is now an expectation that government policy analysts will engage in greater consultation and dialogue with the public as a core part of their professional role (Howlett, 2009a; Wellstead et al., 2009, p. 37). Open processes of dialogue and engagement create a venue for the sharing of information

and perspectives across sectors. Not only does this positively impact the policy produced, but also, more significantly, mutual learning increases the capacity of policy actors to work collaboratively in the solution of collective problems (Booher, 2004, p. 43). As such, in order to enhance policy capacity, there needs to be a dispersal of actors within each policy community and where each possesses “unique organizing capacities” (Van Buuren, 2009, p. 213). This differs from more traditional forms of policy-making where decision-making processes occur within the “black-box” of government and presents a new interpretation of the policy process which “is not imprisoned in closed institutions and is not the province of professional politicians” (Newman et al., 2004, p. 204).

However, this framing of a new governance policy process is not uncontested. The capacity of NGOs to engage in policy work is highly uneven and it has been noted that relatively few have “the policy capacity to participate effectively” (Phillips, 2007, p. 498). A 2005 Canadian survey of several thousand nonprofit organizations found that fewer than 25 percent participated in the policy process. Non-participation was attributed to simply lacking the resources to do so in a meaningful way (Carter, 2011, p. 430-31). Other survey-based research of Canadian government and non-government policy workers suggest that provincial governments tend to invite specific external policy actors and do so frequently, while leaving half or more of the non-government actors either completely out of the policy process or subject to very infrequent invitations to meet and consult (Evans & Sapeha, 2015, p. 265-66). A significant number of NGOs participated in the

policy process only after key decisions are made by government (Evans & Wellstead, 2013). This suggests that in the Canadian context, the distribution of new governance type policy construction processes is limited.

The stated pluralization of the policy process by a wide range of actors appears to offer a means for expanding the inclusion of voices from actors and interests and thus to democratize the process. However, there is reason to note that the assumed diversity of non-government policy actors simply replicates the uneven distribution of power and resources in the broader society. A study of Australian interest groups observed the “lack of voices for less-privileged and resourceful groups” in the policy process (Fraussen & Halpin, 2016, p. 487). In a similar sense, the turn toward evidence-based policy making (EBPM) has been applauded as a means to depoliticize policy formulation and ensure that narrow interests are checked by ‘what works’. But evidence and expertise are embedded in a matrix of power relationships. EBPM glosses over this. One critique of EBPM noted:

A risk that ‘evidence-based policy’ will become a means for policy elites to increase their strategic role over what constitutes a social problem in a way that devalues tacit forms of knowledge, practice-based wisdom, professional judgement and the voices of the ordinary citizens (Marston & Watts, 2003, p. 158).

Moreover, it can be argued the EBPM is not hegemonic in practice and can be a cover for ‘policy-based evidence making’ (PBEM) where information, data, and knowledge may be curated in support of pre-determined policy and political goals on the one hand to outright “fabrication, suppression, falsification and

instrumentalisation of facts for political purposes” (Strassheim & Kettunen 2014, p. 262).

Over the past decade, there have been a number of policy capacity quantitative survey-based studies delving into the details of the ‘who and how’ of front-line policy work in Canada’s federal and provincial governments (see Howlett et al. 2017). From this scholarship, a number of key variables affecting policy work were developed (e.g., engagement by management, staffing, and training) as well as an overall measure of perceived policy capacity which has been the dependent variable in various modeling efforts (Howlett & Wellstead, 2011).

Howlett and Wellstead (2011) found that the types of tasks (e.g., conducting policy research, identifying policy options) and the frequency of the types of issues addressed were important determinants of perceived policy capacity. The types of issues varied from technical (e.g., issues that require specialist or technical knowledge), consultative (e.g., issues that demand input from society-based organizations), or routine (e.g., issues that have a single, clear, relatively simple solution), as well as their geographic and temporal nature. In his study of British Columbia’s policy workers, Howlett (2009b) found that provincial, national, long-term, and short-term (“firefighting”) issues were particularly important drivers of perceived policy capacity. In contrast the advice made by Mayer et al. (2004) that effective policy workers are those who engage more frequently with stakeholders (e.g., NGOs and think tanks), Wellstead and Stedman (2010) found that these workers were, in fact, very insular.

A significant contribution of survey-based research is tying attitudinal predispositions to perceived policy capacity. For example, the growing trend of a politicalized civil service has influenced policy work (Savoie, 2003) and perceived policy capacity (Howlett & Wellstead, 2011). Although these quantitative studies of front-line workers are a noteworthy contribution to understanding the nature of policy work, they have been limited to the narrow scope of government-centered decision-making and fail to account for policy work in new governance arrangements (Parsons, 2004). If policy advisory systems have indeed become “more fluid, pluralized and poly-centric” (Craft & Howlett, 2012, p. 85), there must be some indication of this new policy development environment in how policy workers, both government and non-government, perform their tasks. And, for this pluralized policy advisory system to work optimally, it must be premised on the existence of a “healthy policy-research community outside government” (Anderson, 1996, p. 486).

Research Hypotheses

From the above literature, six hypotheses are developed. Collaborative governance is characterized by the sharing of information and expertise by a variety of participants, which increases capacity of policy actors and leads to better policies (Booher, 2004). Thus, government officials who indicate higher levels of interaction between their own organization and stakeholders would be more likely to report higher policy capacity (*Hypothesis #1*). Similarly, these same policy workers will invite stakeholders more often to participate in policy related activities (*Hypothesis*

#2). Existing research shows that involvement in briefing activities tends to be the strongest predictor of NGO interaction with the government (Evans & Wellstead, 2014). We hypothesize that government officials who are more frequently involved in briefing would be more likely to report a higher frequency of interaction between their organization and stakeholders (*Hypothesis #3*). Collaborative governance is believed to increase policy capacity through knowledge exchange and mutual learning. However, policy makers are often constrained by tight and politically motivated deadlines, which limit the time for thorough analysis of evidence (Forshey 2005; Lidman & Sommers, 2005). This may lead to the perception that there is not enough policy capacity to respond to the urgent nature of policy-making. Government employees who believe that policy-making is more politics-driven would be more likely to report lower policy capacity (*Hypothesis #4*). The politicized nature of policy-making and the associated lower capacity of the government may suggest that policy capacity has shifted “outside.” Therefore, those who believe that policy-making is more politics-driven would be more likely to express skepticism about the policy capacity of government institutions and perceive that capacity is outside formal government institutions (*Hypothesis #5*). In contrast, government policy workers who think that there is demand for evidence and research would be more likely to indicate higher policy capacity (*Hypothesis #6*).

Data and Methods

To probe the above hypotheses, a 192 variable (45 questions) questionnaire based in part on previous capacity surveys by Howlett and Wellstead (Howlett, 2009; Wellstead et al., 2009) was developed. Questions addressed the nature and frequency of the tasks, the extent and frequency of their interactions with other policy actors, and their attitudes towards and views of various aspects of policy-making processes, as well as questions about their educational, previous work, and on-the-job training experiences and demographic characteristics (e.g., age, gender). The survey instrument was emailed as an html link in an email message to 2458 provincial policy analysts in departments responsible for environment, health, immigration, and labour policy communities in three Canadian provinces (Ontario, Saskatchewan, and British Columbia). The specific provinces and policy sectors were chosen because they represented heterogeneous cases in terms of politics, history, and economic and demographic scale.

With respect to the three provinces, Ontario is the largest in terms population (13.5 million) and share of the national GDP (40 percent). Unlike most of Canada's other provinces, Ontario has a competitive three party political system where, since 1990, all three parties have governed. British Columbia is a mid-size province (population of 4.4 million and 12 percent of national GDP). Provincial elections have been polarized contests between social democrats and various free market-oriented parties. Saskatchewan was chosen as a small province (population of one million and three percent of national GDP). Its economy is largely based on

natural resources and agriculture. Politics have also been highly polarized where the provincial government has alternated between social democrats and a conservative party.

The survey mailing list was compiled, wherever possible, from publicly available sources, in particular online telephone directories. Keyword searches for terms such as “policy analyst” appearing in job titles or descriptions were made. In some cases, additional names were added to lists from hard-copy sources. Finally, the researchers confirmed lists by directly contacting agencies. Based on preliminary interviews with NGO representatives, it was suspected that respondents would undertake a variety of non-policy related tasks. As a result, the search was widened to include those who undertook policy related analysis in their work objectives. Due to the small size of both study populations, a census rather than sample was drawn from each. The online survey was implemented in the Spring of 2013 using Survey Monkey, a commercial software service. A total of 603 returns were collected for a final response rate of 34.5 percent. The data were weighted using the iterative proportional fitting method (Centers for Disease Control and Prevention, 2013).

The data were analyzed using SPSS 20.0 and LISREL 8.8 software packages. The data generated by the survey provided the basis to examine the descriptive variables and test the hypotheses about the nature of NGO interaction with government officials in the structural equation model (multivariate regression analysis). LISREL is a very popular research tool in the social sciences because of its

capabilities for understanding, testing, and predicting complex phenomena (Kelloway, 1995). Thus, the response variables in one regression equation in any SEM may appear as a predictor in another equation and the SEM variables may influence each other reciprocally, either directly or indirectly or through other variables as intermediaries (Hailu et al., 2005).

Model Variables and Descriptive Results

This section presents an overview of the descriptive results used in the structural equation model. Of the three provinces surveyed, more than half of the respondents were from Ontario (54 percent), followed by British Columbia (25.1 percent) and Saskatchewan (20.9 percent). Respondents who worked in the immigration sector were the largest group (41.7 percent). Almost one third (32.2 percent) indicated health as their sector of employment. The least numerous groups were environment and labour (15.6 percent and 10.4 percent respectively). The majority of respondents were female (58.6 percent). More than a third of respondents were under the age of 41 (37.1 percent) and the same share of respondents was over 50 years of age (Table 1).

Table 1 – Respondent’s age

Respondent’s Age	N	Percent
30 years or younger	54	10.8
31-40 years	131	26.3
41-50 years	129	25.9
51-60 years	148	29.7
Over 60 years	37	7.4
Total	499	100.0

Respondents were asked about the length of tenure in their current position and in policy work specific to their current field. Only slightly more than a quarter (27.4 percent) had more than five years of working experience in their current position (Table 2). However, about half (49.2 percent) had been involved in policy work in their field for more than five years.

Table 2 – Tenure of employment

	In current position		In policy work specific to current field	
	N	Percent	N	Percent
Less than 1 year	95	15.8	51	8.6
1-5 years	343	56.9	252	42.3
6-9 years	88	14.6	117	19.6
10-14 years	37	6.1	84	14.1
15-20 years	21	3.5	48	8.1
Greater than 20 years	19	3.2	44	7.4

Respondents were asked about their involvement in certain types of work (18 types). Briefing low or mid-level policy managers was the most frequently mentioned type by the respondents with 77.2 percent indicating monthly or weekly involvement) (Table 3); this was closely followed by collecting policy-related data or information (70.9 percent). A factor analysis of these types was conducted (with 64.2 percent of the variance explained) and it produced five distinct broad types: “high level briefing work”, “consultation work”, “policy evaluation”, “high level policy work” and “lower level policy work.”

Table 3 – Involvement in certain types of work

	N	Mean	% weekly or monthly
Brief low or mid-level policy managers	562	4.15	77.2
Collect policy-related data or information	560	3.93	70.9
Consult with decision-makers	547	3.60	61.6
Identify policy issues	546	3.66	60.4
Conduct policy-related research	559	3.54	58.7
Identify policy options	553	3.55	56.6
Brief senior management	565	3.43	56.3
Appraise/assess policy options	555	3.54	56.2
Consult with stakeholders	556	3.36	50.7
Negotiate with program staff	558	3.07	46.8
Implement or deliver policies or programs	558	3.03	43.0
Evaluate policy processes and procedures	551	2.78	30.1
Evaluate policy results and outcomes	558	2.79	30.1
Negotiate with stakeholders on policy matters	561	2.45	24.2
Brief cabinet ministers and ministerial staff	567	2.20	18.2
Negotiate with central agencies	552	2.10	17.4
Consult with the public	554	1.98	12.8
Conduct scientific research	553	1.70	11.9

(Means based on a scale of 1=never involved in a certain type of work to 5=weekly)

Consultations with stakeholders were consistently frequent at all government levels (Table 4). Interactions with senior level civil servants and working level staff were the most frequent. The internal consistency reliability of these six types when summed was equal to .784 (a strong Cronbach's alpha).¹

¹ Cronbach's alpha determines the internal consistency or average correlation of items in a survey instrument to gauge its reliability.

Table 4 – Frequency of interaction with stakeholders

	N	% annually or never	% quarterly	% weekly or monthly
Minister/Minister's staff	435	20.2	17.5	62.3
Deputy Minister	430	20.9	17.7	61.4
Assistant Deputy Minister of the relevant division	439	13.7	20.7	65.6
Senior level civil servants (e.g. directors)	462	8.4	20.6	71.0
Middle level civil servants (e.g. policy analysts, researchers)	476	15.1	22.1	62.8
Working level staff (e.g. field officers)	458	19.7	11.4	69.0

Stakeholders were quite frequently invited for input on policy matters both formally and informally with 38.2 percent and 52.3 percent of the respondents indicating monthly or quarterly engagement (Table 5).² Both variables were summed.

Table 5 - Frequency of stakeholder invitations

Invitation for input	Informally		Formally	
	N	Percent	N	Percent
Never	103	19.4	100	18.8
Annually	52	9.8	113	21.2
Semi-Annually	99	18.6	116	21.8
Quarterly	121	22.7	122	22.9
Monthly	157	29.5	81	15.2
Total	532	100.0	532	100.0

Within their departments, a majority of the respondents (60 percent) indicated very adequate or adequate commitment to policy work by their

² Pearson correlation for these two items was significant at the 0.001 level and equal to 0.566 meaning that there were not large differences between the two types of input.

management (Table 6). However, less than half reported adequate commitment to the recruitment of skilled policy staff and engagement by networks (41.7 percent and 38.1 percent respectively). Commitment to staffing full-time equivalents and training were considered adequate only by about a quarter of the respondents. These five items were summed resulting in a strong Cronbach's alpha = 0.811.

Table 6 – Adequacy of departmental commitment to policy work

How adequate is departmental commitment to policy work in terms of:	N	% adequate or very adequate
Engagement by my management	520	60.0
Recruitment of skilled policy staff	518	41.7
Engagement by networks	504	38.1
Staffing full-time equivalents	517	27.5
Training	518	23.2

Respondents were asked how much of working time they spent on certain issues. Issues where it is difficult to identify a single, clear, simple solution and issues that require specialist or technical knowledge were the most frequently mentioned items (Table 7). A factor analysis was conducted (with 54.4 percent of the variance explained) and it produced two distinct broad categories: “political issues” and “technical issues.”

Table 7 – Working time spent on certain issues

	N	Mean	% greater than 50%
Issues where it is difficult to identify a single, clear, simple solution	529	3.80	41.0
Issues that require specialist or technical knowledge	531	3.66	35.0
Issues which demand the creation or	525	3.42	28.0

collection of policy-relevant evidence			
Issues for which data is not immediately available	532	3.53	26.9
Issues that require input from stakeholders/NGOs	536	3.13	24.4
Issues that emerge as the result of political priorities in the Premier's office or Cabinet	534	3.18	20.4
Issues that are raised by stakeholders/NGOs	535	3.22	20.4
Issues that require coordination with other levels of government	529	3.02	18.1
Issues that emerge as a result of public pressure on government	536	2.90	13.4
Issues that require public consultation	535	2.20	9.2
Issues that have a single, clear, relatively simple solution	527	1.93	1.1

(Based on scale where 1=0 percent of time spent on an issue to 5=greater than 50 percent of time).

The vast majority of respondents (82.1 percent) indicated that urgent day-to-day issues took precedence over long-term thinking and 64.1 percent agreed that policy directions seem to increasingly focus on what is most politically acceptable (\bar{x} =4.19 and \bar{x} =3.83 respectively, where the mean is the average on a scale of 1=strongly disagree to 5=strongly agree) (see Table 8). More than two thirds (68.3 percent) thought that those who have more authority in decision-making usually have less specialized technical expertise (\bar{x} =3.91). While a solid majority reported an increasing demand for evidence (63.5 percent) and strong technical expertise (58.4 percent), only 51.4 percent indicated that well-organized data, research and analysis originating from government department are used in policymaking. Furthermore, 47.6 percent believed that there is less capacity to analyze policy options than there used to be. A factor analysis of these items was conducted (with

51.92 percent of the variance explained) and it produced four distinct broad categories: “political” (agreeing that policy-making is more politics-driven), “skeptical” (skepticism about policy capacity of government institutions, “research” (agreeing that there is use/demand for research) and “consultation” (agreeing that the role of consultations is increasing).

Table 8 – Level of agreement/disagreement about perspectives on the policy process

	N	Mean	% agree or strongly agree
Urgent day-to-day issues seem to take precedence over thinking ‘long term.’	502	4.19	82.1
Those who have more authority in decision-making usually have less specialized technical expertise	498	3.91	68.3
Policy directions seem to increasingly be on what is most politically acceptable	499	3.83	64.1
Evidence is increasingly being asked for in government policy development and evaluation	498	3.81	63.5
An important role of government is to foster involvement in the policy process by other NGOs/stakeholders	494	3.72	60.5
My policy-related work increasingly involves networks of people across other regions, or levels of government, or even outside of government	495	3.60	59.4
Policy problems increasingly require strong technical expertise	493	3.60	58.4
Well-organized data, research and analysis originating from government department is used in policymaking	496	3.41	51.4
There seems to be less governmental capacity to analyze policy options than there used to be	496	3.48	47.6
Interest groups seem to have a greater influence in the policy-making process than they used to	493	3.42	42.8
Much of the existing policy capacity is outside the formal structure of government	488	2.86	24.2

Formal government institutions are becoming less relevant to policy-making	489	2.89	22.1
I am increasingly consulting with the public as I do my policy-related work.	501	2.54	20.0
Decisions about government programs and operations are increasingly made by those outside of government	490	2.73	18.0

Networking with provincial government departments or agencies and provision of more policy-relevant data were considered the most impactful actions on policy effectiveness (92.9 percent and 88.7 percent respectively; and \bar{x} =4.31, based a scale where 1=makes policy much less effective to 5=makes policy much more effective) (Table 9). Provision of more information, better training of policy-related personnel, and networking with NGOs also made the top five (with more than 80 percent of the respondents indicating their effectiveness; and the \bar{x} >4.00). A factor analysis of these items was conducted (with 63.28 percent of the variance explained) and it produced two distinct broad items: “internal impact” and “external impact.”

Table 9 – Impact on the effectiveness of policy

	N	Mean	% more or much more effective
Networking with provincial government departments or agencies	491	4.31	92.9
Provision of more policy-relevant data	487	4.31	88.7
Provision of more information	486	4.16	84.2
Networking with NGOs	485	4.05	83.1
Better training of policy-related personnel	486	4.17	82.7
More attention paid to policy development by managers	483	3.92	77.2

Networking with municipal government departments or agencies	483	3.98	77.0
Involving the general public in the policy process	489	3.79	70.8
Assignment of more personnel to policy tasks in government	478	3.53	53.6
Assignment of more personnel to policy tasks in the NGO community	466	3.35	42.3
Creation of new policy units	477	3.22	32.9
More control from central agencies	477	2.72	20.3

Structural Equation Model Results

The descriptive scores and labels for the exogenous and endogenous variables used in the structural equation model are listed in Table 10. The model's final likelihood estimates 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-Square=56.27, 61, P-value=.6478, RMSEA [root mean-square error of approximation] = .000). The modification indices show that no effects currently excluded from the model would, if added, significantly improve the model fit. We first examine the impact of the respondent's age (AGE), location (SASK)ⁱ, and the frequency with which stakeholders were invited to the decision-making process (INVITE STAKEHOLDER), followed by the major functions (e.g., CONSULT, EVALUATE, LOWER LEVEL POLICY WORK) on all aspects of respondents' policy work. We then examine the impacts of endogenous variables on each other beginning with attitudes towards the political system (POLITICAL).

Older respondents were more likely to have a lower perceived sense of policy capacity ($\gamma = -.13$), as were those respondents from the province of Saskatchewan ($\gamma = -.15$). The more frequently respondents invited stakeholders led to a greater level of perceived policy capacity ($\gamma = .15$), the role of consultation ($\gamma = .20$) and POLICY IMPACT ($\gamma = .14$). Not surprising was an increased level of government-stakeholder interaction ($\gamma = .20$). Of the major functions, only consulting related work was directly related to perceived policy capacity ($\gamma = -.16$). Those who undertook consulting had strong attitudes about the increasing role of consultation ($\gamma = .38$) and they spent more time on political issues ($\gamma = .25$). Respondents who undertook more frequent evaluation were less likely to agree that policy-making was more politics-driven ($\gamma = -.29$), were more skeptical about policy capacity of government institutions ($\gamma = .20$) and spent more time on political issues ($\gamma = -.14$). Respondents who were more likely to undertake low level policy work were also more likely to agree that policy-making was politics-driven ($\gamma = .20$) and less likely to be skeptical ($\gamma = -.31$), whereas high level briefing work led to increased interaction with stakeholders ($\gamma = .22$) and increased time spent on political issues ($\gamma = .26$).

Among the endogenous variables, those who thought that policy-making was politics-driven had a lower perception of policy capacity ($\beta = -.46$) and were very skeptical ($\beta = .54$). More skeptical respondents thought that there was less use of or demand for research ($\beta = -.23$) and spent more time on political issues ($\beta = .14$). Those who fostered a more positive attitude towards demand for research were more likely to have a greater perception of policy capacity ($\beta = .21$). Those who

thought consulting was important also demonstrated higher perceived policy capacity ($\beta=.21$) and POLICY IMPACT ($\beta=.20$). Those who thought that greater policy effectiveness could be achieved by working in networks with stakeholders (POLICY IMPACT) were more likely to have an increased perceived demand for research ($\beta=.17$), but spent less time on political issues ($\beta= -.25$). Finally, greater interaction with stakeholders increased the level of policy capacity ($\beta=.19$).

Table 10 – Variables used in the LISREL model

Variable label	Description	Mean score	SD
Exogenous variables			
HIGH LEVEL BRIEF	Factored variable for involvement in high level briefing work: 1=never; 5=weekly	2.56	.871
CONSULT	Factored variable for involvement in consultation work: 1=never; 5=weekly	3.01	.786
EVALUATE	Factored variable for involvement in policy evaluation: 1=never; 5=weekly	2.97	1.09
LOWER LEVEL POLICY WORK	Factored variable for involvement in identifying policy options and policy issues and assessing policy options: 1=never; 5=weekly	3.45	.801
INVITE STAKEHOLDER	Index for formal and informal invitation of stakeholders to assist with work		
SASK	Province location – Saskatchewan: 1=yes; 0=no	.209	.123
AGE	Age: 1=30 or younger; 5=over 60	3.23	.097
Endogenous variables			
CAPACITY	Summed adequacy of departmental commitment to policy work	3.51	.911
POLITICAL	Factored variable for agreeing that policy-making is more politics-driven	3.85	1.05
SKEPTICAL	Factored variable for skepticism about policy capacity of government institutions	2.82	.901
DEMAND	Factored variable for agreeing that there is	3.61	1.01

RESEARCH	use/demand for research		
DEMAND CONSULT	Factored variable for agreeing that the role of consultations is increasing	3.07	.987
INTERACT	Index for frequency of interaction between government and stakeholders	25.02	5.00
POLICY IMPACT	Factored variable for the external impact on policy effectiveness	3.32	1.10
POLITIC ISSUE	Factored variable for time spent on political issues	3.65	.975

Table 11 – Structural Equation Model Maximum Likelihood Estimates

FROM	TO	DIRECT EFFECT	T-SCORE	STANDARDIZED EFFECT
<i>Exogenous Variables</i>	<i>Endogenous Variables</i>			
AGE				
	CAPACITY	-.47	-3.08	-.13
SASK				
	CAPACITY	-1.48	3.52	-.15
INVITE STAKEHOLDER				
	CAPACITY	.49	2.57	.15
	CONSULT	.15	3.52	.20
	POLICY IMPACT	.06	2.14	.14
	INTERACT	.89	4.00	.21
HIGH LEVEL BRIEF				
	INTERACT	1.10	3.72	.22
	POLITIC ISSUE	.23	4.43	.26
CONSULT				
	CAPACITY	-.63	2.52	-.16
	DEMAND CONSULT	.36	6.07	.38
	POLITIC ISSUE	.12	2.27	.25

EVALUATE				
	POLITICAL	-.16	3.65	-.29
	SKEPTICAL	.12	2.73	.20
	POLITIC ISSUE	-.12	2.30	-.14
LOWER LEVEL POLICY WORK				
	POLITICAL	.11	2.50	.20
	SKEPTICAL	-.19	4.26	-.31
	DEMAND RESEARCH	.12	3.06	.16
	POLITIC ISSUE	.29	5.51	.37
<i>Endogenous Variables</i>	<i>Endogenous Variables</i>			
POLITICAL				
	CAPACITY	-2.89	-9.77	-.46
	SKEPTICAL	.59	5.63	.54
SKEPTICAL				
	DEMAND RESEARCH	-.29	-4.33	-.23
	POLITIC ISSUE	.19	3.10	.14
RESEARCH				
	CAPACITY	1.00	4.97	.21
CONSULT				
	CAPACITY	.88	4.19	.21
	POLICY IMPACT	.11	3.16	.20
POLICY IMPACT	DEMAND RESEARCH	.26	3.12	.17
	POLITICAL	-.41	5.06	-.25
INTERACT				
	CAPACITY	.11	2.86	.19

(Chi-Square = 56.27, df=61, P-value=.6478, RMSEA=0.000)

Implications and Conclusions

Underlying our six specific hypotheses was the idea that collaborative interaction with societal groups is closely related to the nature of policy work and policy capacity. Based on the results from the structural equation model, as predicted in *Hypothesis #1*, those who interacted more frequently with stakeholders reported a greater sense of policy capacity was supported. These highly engaged policy workers also invited stakeholders to participate in policy activities, thus confirming *Hypothesis #2*. Briefing activities by policy respondents and increased stakeholder interaction was supported (*Hypothesis #3*). With respect to *Hypothesis #4*, a greater sense of political interference in policy development and a lower level of policy capacity perception were strongly supported and the notion that such views would lead to greater skepticism of government institutions was also strongly supported (*Hypothesis #5*).

There might be perception among those surveyed that there is not enough policy capacity to respond to the “urgent” nature of policy-making. The perception that urgent day-to-day issues take precedence over long-term thinking and policy directions is apparent, particularly with the increased number of imposed deadlines and a “Ready! Fire! Aim!” approach to policy decision making (Forshey, 2005; Lidman & Sommers, 2005). Short-term thinking prevails because there is neither time nor resources for long-term planning. However, networking with outside groups requires longer-term planning horizons. That only a quarter of respondents think that their department’s commitment in terms of training and staffing full-time

equivalents is adequate may point to the negative impact that the new public management approach has had on government capacity for evidence-based policy-making.

Despite the importance placed on evidence-based work, doing more of it did not lead to a greater policy capacity perception meaning that *Hypothesis #6* was rejected. In fact, evidence-based policy work played no role in the interaction with stakeholder groups. While respondents report that evidence is increasingly being requested in government policy development and evaluation, and policy problems increasingly require strong technical expertise, it has not been made clear whether the demand for knowledge is to improve decision-making or to provide justification for existing policy decisions. When it comes to actual practices, slightly more than a half of our sample agreed that well-organized data, research and analysis originating from government departments are used in policy-making. However, a significant minority (one fifth) disagreed. While less than half of respondents think that there is less government capacity to analyze policy options, only about fifteen per cent disagreed with this statement.

Previous studies show that government policy workers do not interact much outside of their close work circle (Wellstead & Stedman, 2010; Howlett & Wellstead, 2012). An unequal power distribution among stakeholders results in unequal access to the government. Outsiders are often excluded from deliberative processes and their contribution is minimal or ignored (Van der Heijden & Ten Heuvelhof, 2012; Eversole, 2010). While a variety of actors within each policy community is required

to increase policy capacity (Van Buuren, 2009), stakeholders' involvement tends to be limited to a specific group of actors (Evans & Sapeha, 2015). Despite this dim picture, the results from this modeling effort indicate the factors required for greater interaction between stakeholders and government policy workers.

The survey developed for this study was in part derived from earlier studies (Howlett, 2009a; Wellstead & Stedman, 2010; Howlett & Wellstead, 2011). Previous policy capacity/policy work surveys have been conducted outside of Canada (e.g., Australia and the Czech Republic) (Carson & Wellstead, 2015; Veselý et al., 2014). The questions from these studies are freely available online (see Ramesh et al. 2016). The availability of relatively inexpensive surveys makes replicating studies by those outside of academia very feasible as a useful tool to monitor policy capacity. Surveys only provide a snapshot in time. Therefore, it is important to replicate surveys in frequent intervals.

The central tenants of statistical analysis are co-variation and prediction. Such an approach is focused on the effects of specific causes and not on the causes of specific effects. The presence of a co-variation may be an artifact of a particular situation and conversely the absence of a co-variance may not mean that a causal relation is absent (Koslowski et al., 1989). Causality is indicated by constant conjunctions of empirical events. Future research may want to reconsider causation existing beyond the identification of actions or entities which produce a regular series of changes from a beginning state to an ending (McAdam et al., 2008). Instead, policy capacity may be theorized so as to identify its key components and their

relationship to policy change. By studying these mechanisms, the emphasis is focused on the connection between cause and effect (Beach & Pedersen, 2013). This can be a difficult task because mechanisms are often unobservable or hidden. To identify the mechanistic nature of causality requires uncovering empirically traceable processes which will uncover how X produces Y under specific conditions by describing “properties of the relationships among phenomena with the potential to recur, which helps explain why x causes y” (Hall 2013, p. 21). This understanding of causality may permit an opening up of the black boxes of policy-capacity. In doing so, it may be possible to find a diversity of causal mechanisms that affect and explain policy outcomes. Such approach, according to Charbonneau et al. (2017), is relatively new to public administration but nonetheless, empirical methods such as process tracing hold great promise in explaining change.

References

- Anderson, George. 1996. “The New Focus on the Policy Capacity of the Federal Government.” *Canadian Public Administration* 39(4): 469–488.
- Baskoy, Tuna, Evans, Bryan, & John Shields. 2011. “Assessing policy capacity in Canada’s public services: Perspectives of deputy and assistant deputy ministers.” *Canadian Public Administration* 54(2): 217–234.
- Bauer, M.W., Green-Pedersen, C., Héritier, A. & Jordan, A. eds., 2012. *Dismantling public policy: Preferences, strategies, and effects*. OUP Oxford.
- Beach, Derek & Rasmus Pedersen. 2013. *Process-tracing methods: Foundations and guidelines*. Ann Arbor: University of Michigan Press.
- Booher, David. 2004. “Collaborative Governance Practices and Democracy.” *National Civic Review* 93(4): 32–46.

Carson, Dean & Adam Wellstead. 2015. "Government with a cast of dozens: Policy capacity risks and policy work in the Northern Territory." *Australian Journal of Public Administration* 74(2): 162-175.

Carter, Susan. 2011. "Public policy and the nonprofit sector." *The Philanthropist* 23: 427-435.

Centers for Disease Control and Prevention. 2013. Fact sheet: Improving survey methodology. Atlanta, Georgia: Division of Behavioral Surveillance. https://www.cdc.gov/brfss/factsheets/pdf/DBS_BRFSS_survey.pdf (Accessed March 10, 2018)

Charbonneau, Étienne, Henderson, Alexander, Ladouceur, Benoit & Phillippe Pichet. 2017. "Process tracing in public administration: The implications of practitioner insights for methods of inquiry." *International Journal of Public Administration* 40(5): 434-442.

Christensen, Tom & Per Laegreid. 2005. "Autonomization and Policy Capacity: The Dilemmas and Challenges Facing Political Executives." In M. Painter and J. Pierre (Eds.). *Challenges to State Policy Capacity: Global Trends and Comparative Perspectives*. New York: Palgrave Macmillan.

Craft, Jonathan & Michael Howlett. 2012. "Policy formulation, governance shifts and policy influence: location and content in policy advisory systems." *Journal of Public Policy* 32(2): 79-98.

Edwards, Lindy. 2009. "Testing the Discourse of Declining Policy Capacity: Rail Policy and the Department of Transport." *Australian Journal of Public Administration* 68(3): 288-302.

Evans, Bryan & Adam Wellstead. 2013. "Policy Dialogue and Engagement between Non-Governmental Organizations and Government: A Survey of Processes and Instruments of Canadian Policy Workers." *Central European Journal of Public Policy* 7(1): 60-87.

Evans, Bryan & Adam Wellstead. 2014. "Tales of Policy Estrangement: Non-governmental Policy Work and Capacity in Three Canadian Provinces." *The Canadian Journal of Nonprofit and Social Economy Research* 5: 7-28. <http://anserj.ca/index.php/cjnsr/article/view/164/109> (Accessed March 10, 2018)

Evans, Bryan & Halina Sapeha. 2015. "Are Non-government Policy Actors Being Heard? Assessing New Public Governance." *Canadian Public Administration* 58(2): 249-270.

Eversole, R., 2010. "Remaking participation: challenges for community development practice." *Community development journal* 47(1): 29-41.

Fellegi, Ivan. 1996. *Strengthening our Policy Capacity*. Report of the Deputy Ministers Task Force. Ottawa: Supply and Services Canada.

Forshey, Jennifer M. 2005. "Game. Set. Budget." *Journal of Policy Analysis and Management* 24 (2): 428-433.

Fraussen, Bert & Darren Halpin. 2016. "Assessing the Composition and Diversity of the Australian Interest Group System." *Australian Journal of Public Administration* 25(4): 476-491.

Goetz, Klaus & Helmut Wollmann. 2001. "Governmentalizing Central Executives in Post-Communist Europe: A Four-country Comparison." *Journal of European Public Policy* 8(6): 864-887.

Government of New Zealand. 2010. Improving the Quality and Value of Policy Advice, Review of Expenditure on Policy Advice.
<http://www.treasury.govt.nz/statesector/policyexpenditurereview/report-repa-dec10.pdf>
(Accessed March 10, 2018)

Gubrandsen, Lars & Andresen Steinar. 2004. "NGO Influence in the Implementation of the Kyoto Protocol: Compliance, Flexibility Mechanisms and Sinks." *Global Environmental Politics* 4(4): 54-75.

Hailu, G., Boxall, P.C. and McFarlane, B.L., 2005. "The influence of place attachment on recreation demand." *Journal of Economic Psychology* 26(4):581-598.

Hajer, Maaretn & Hendrik Wagenaar. 2003. *Deliberative Policy Analysis: Understanding Governance in the Network Society*. Cambridge: Cambridge University Press.

Hall, Peter A. 2013. "Tracing the progress of process tracing." *European Political Science* 12 (1): 20-30.

Hoppe, Robert. 1999. "Policy Analysis, Science, and Politics: From "Speaking Truth to Power" to "Making Sense Together." *Science and Public Policy* 26(3): 201-210.

Howlett, Michael, Wellstead, Adam & Jonathan Craft. eds., 2017. *Policy work in Canada: Professional practices and analytical capacities*. University of Toronto Press.

Howlett, Michael & Adam Wellstead. 2011. "Policy analysts in the bureaucracy revisited: The nature of professional policy work in contemporary government." *Politics & Policy* 39(4): 613-633.

Howlett, Michael. 2009a. "Policy Advice in Multi-Level Governance Systems: Sub-national Policy Analysts and Analysis." *International Review of Public Administration* 13(3): 1-16.

Howlett, Michael. 2009b. "Policy analytical capacity and evidence-based policy-making: Lessons from Canada." *Canadian Public Administration* 52(2): 153-175.

Kelloway, E.K., 1995. "Structural equation modelling in perspective." *Journal of Organizational Behavior* 16(3):215-224.

Koslowski, Barbara, Okagaki, Lynn, Lorenz, Cheryl & David Umbach. 1989. When covariation is not enough: The role of causal mechanism, sampling method, and sample size in causal reasoning. *Child Development*, pp. 1316-1327.

- Lidman, Russell & Paul Sommers. 2005. "The 'Compleat' Policy Analyst: A Top 10 List." *Public Administration Review* 65 (5): 628–34.
- McAdam, Doug, Tarrow, Sidney & Charles Tilly. 2008. "Methods for measuring mechanisms of contention." *Qualitative Sociology* 31: 307-331.
- Marston, Greg & Rob Watts. 2003. "Tampering with the evidence: A critical appraisal of evidence-based policy-making." *The Drawing Board: An Australian Review of Public Affairs* 3: 143-63.
- Mayer, Igor, Bots, Pieter & Els van Daalen. 2004. "Perspectives on Policy Analysis: A Framework for Understanding and Design." *International Journal of Technology, Policy and Management* 4(1): 169–191.
- Newman, Janet, Barnes, Marian, Sullivan, Helen & Andrew Knops. 2004. "Public participation and collaborative governance." *Journal of Social Policy* 33(2): 203–223.
- Painter, Martin & Jon Pierre. 2005. "Conclusions: Challenges to policy capacity." In M. Painter & J. Pierre (Eds.). *Challenges to state policy capacity: Global trends and comparative perspectives* (pp. 255–61). New York, NY: Palgrave Macmillan.
- Parsons, W. 2004. "Not Just Steering but Weaving: Relevant Knowledge and the Craft of Building Policy Capacity and Coherence." *Australian Journal of Public Administration* 63(1): 43–57.
- Peters, B. G. 2010. "Bureaucracy and Democracy." *Public Organization Review* 10: 209–222.
- Peters, B. Guy. 2005. Policy Instruments and Policy Capacity. In Painter, Martin. & Pierre, Jon.(Eds.). *Challenges to state policy capacity: Global trends and comparative perspectives*. New York: Palgrave Macmillan.
- Phillips, Susan. 2007. "Policy Analysis and the Voluntary Sector: Evolving Policy Styles." In L. Dobuzinskis, M. Howlett and D. Laycock (Eds.). *Policy Analysis in Canada: The State of the Art*. Toronto: University of Toronto Press.
- Ramesh, M., Howlett, Michael & Kidjie Saguin. 2016. "Measuring Individual-Level Analytical, Managerial and Political Policy Capacity: A Survey Instrument (May 9, 2016)." Lee Kuan Yew School of Public Policy Research Paper No. 16-07. Available at SSRN: <https://ssrn.com/abstract=2777382>
- Rhodes, R.A.W. 1994. "The Hollowing Out of the State: The Changing Nature of the Public Service in Britain." *Political Quarterly* 65: 138–151.
- Rowe, G. & Frewer, L. J. 2005. "A typology of public engagement mechanisms." *Science, Technology and Human Values* 30(2): 251–290.
- Savoie, Donald. 2003. Strengthening the Policy Capacity of Government. *Report to the Panel on the Role of Government*. Research Paper Series, 1, 239–290.

Strassheim, Holger & Pekka Kettunen. 2014. "When does evidence-based policy turn into policy-based evidence? Configurations, contexts and mechanisms." *Evidence and Policy: A Journal of Research Debate and Practice* 10: 259-277.

Van Buuren, A. 2009. "Knowledge for Governance, Governance of Knowledge: Inclusive Knowledge Management in Collaborative Governance Processes." *International Public Management Journal* 12(2): 208-235.

van der Heijden, J. and Ten Heuvelhof, E., 2012. "The mechanics of virtue: lessons on public participation from implementing the Water Framework Directive in the Netherlands." *Environmental Policy and Governance* 3(22): 177-188.

Veselý, Arnošt, Wellstead, Adam & Bryan Evans. 2014. "Comparing sub-national policy workers in Canada and the Czech Republic: Who are they, what they do, and why it matters?" *Policy and Society* 33(2): 103-115.

Wellstead, Adam & Stedman, Richard. 2010. "Policy Capacity and Incapacity in Canada's Federal Government: The Intersection of Policy Analysis and Street Level Bureaucracy." *Public Management Review* 12(6): 893-910.

Wellstead, Adam, Stedman, Richard, & Evert Lindquist. 2009. "The Nature of Regional Policy Work in Canada's Federal Public Service." *Canadian Political Science Review* 3(1): 34-56.

ⁱ With the exception of the respondents from Saskatchewan, the variables for location and sector of employment were not statistically significant in the LISREL model.