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The "Lumpiness" Thesis Revisited: The Venues of Policy Work and the Distribution of Analytical Techniques in Canada

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Abstract

This paper contributes to the understanding of analytical practices and tools employed by policy analysts involved in policy formulation and appraisal by examining data drawn from 15 surveys of federal, provincial and territorial government policy analysts in Canada conducted in 2009-2010, two surveys of NGO analysts conducted in 2010-2011 and two surveys of external policy consultants conducted in 2012-2013. Data from these surveys allow the exploration of several facets of the use of analytical tools ranging from more precise description of the frequency of use of specific kinds of tools and techniques in government as well as their distribution between permanent government officials and external policy analysts. As the paper shows, the frequency of use of major types of analytical techniques used in policy formulation is not the same between the three types of actors and also varies within government by Department and issue type. Nevertheless some general patterns in the use of policy appraisal tools in government can be discerned, with all groups employing process-related tools more frequently than 'substantive' tools related to the technical analysis of policy proposals.

Introduction: Analytical Techniques and Policy Analysis

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 1979).

Professional policy analysts employ many different types of tools in this work (Mayer et al 2004; Colebatch et al 2011). These tools generally are designed to help evaluate current or past practices and aid decision-making by clarifying or eliminating many possible alternative courses of action. In this sense, these policy tools play a significant role in policy formulation activity and potentially play a significant role in determining the content of policy outputs and thus policy outcomes (Sydney 2007).

As such they are a worthy subject of investigation in their own right. Unfortunately, however, generally speaking little is known about many of the

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practices involved in policy work (Colebatch 2005 and 2006; Colebatch and Radin 2006; Noordegraaf 2011) nor about the tasks and activities involved in policy formulation (DeLeon 1992, Linder and Peters 1990). That is, although many works have made recommendations and suggestions for how formulation *should* be conducted (Vining and Weimer 2010; Dunn 2004) very few works have studied how it *actually* practiced, on the ground, and data is limited on virtually every aspect of the policy appraisal activities in which governments engage (Page 2010, Page and Jenkins 2005).

Some progress has been made on this front in recent years, however. Jordan, Turnpenny et al have made considerable progress in, for example, mapping many of the activities involved in both ex post and ex ante policy evaluation (Nilsson et al 2008; Hertin et al 2009; Turnpenny et al 2008 and 2009) and have been joined by, for example, work done in Australia and elsewhere on regulatory impact assessments and other similar tools and techniques used in formulation activities (Carroll and Kellow 2011; Rissi and Sager 2013).

And more evidence has slowly been gathered in these countries and elsewhere on the nature of policy work and the different types practiced in different situations by different actors (Mayer et al 2004; Boston et al 2006; Tiernan 2011; Sullivan 2011). Studies have probing the backgrounds and activities of professional policy analysts in government (Bernier and Howlett 2011; Howlett and Newman 2010; Howlett and Wellstead 2011; Howlett and Joshi 2011) those working for NGOs (Evans and Wellstead 2012), ministerial staffers (Eichbaum and Shaw 2007, 2011, 2012; Connaugton 2010; Fleischer 2009); policy consultants (Saint Martin 1998a, 1998b,

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2005; Speers 2007; Perl and White 2002) and many other prominent members of national and sub-national level policy advisory systems (Dobuzinskis et al 2007; Halligan 1995; Craft and Howlett 2012).

Recently Howlett et al have published a series of studies examining the activities of governmental and non-governmental policy actors in Canada using much the same survey questionnaire. These studies have started to fill out a picture of professional policy analysts and ministerial staffers, among others, as engaging in primarily *process-related* tasks and activities. This is consistent with the pattern found in the UK by Page and Jenkins (2005) and in Australia (Tiernan 2012) and New Zealand (Eichbaum and Shaw 2011) and Ireland (Connaugton 2010). However this work to date has several limitations. First, although it has distinguished between regional and central level activities (Wellstead et al 2009; Wellstead and Stedman 2010) in government and has found some significant variations in analytical modes and techniques practiced at these levels, it has generally not distinguished carefully between different organizations and functions of government within Departments and units (for an exception to this rule see Howlett and Joshi 2011).

Secondly, it has generally explored differences between government-based and non-government-based analysts and analysis, without taking into account the activities of the so-called 'invisible' civil services (Speers 2007) that is the ever-growing legion of consultants who work for governments on policy matters, in some cases supplanting or replacing internal analysis and analysts (Howlett and Migone 2013 forthcoming). A more complete picture of policy formulation and the roles

played by policy analysts within it is needed if the nature of contemporary policy work is to be better understood.

This paper addresses both these concerns. First, it re-encapsulates the results of existing national and sub-national surveys conducted in 2006-2009 of internal Canadian policy analysts and sets out what is known about their formulation and appraisal activities, focusing on the techniques they employ in their work. Secondly, the paper re-examines the original dataset used in these studies to tease out its findings with respect to differences in the use of analytical techniques across departments and functional units of government. Third, the paper draws on two new surveys of policy consultants and those who manage them completed in December 2012 and two surveys of NGO analysts conducted in 2010-2011 to assess what kinds of techniques are practiced by the private sector and non-governmental counterparts of professional policy analysts in government.

Combined, these three studies provide more precise description of the frequency of use of specific kinds of tools and techniques used in government for policy formulation and their distribution between permanent government officials and external policy consultants. As the paper shows, the frequency of use of major types of analytical techniques used in policy formulation is not the same between the two sets of actors and also varies within government by Department and agency type. Nevertheless some general patterns in the use of policy appraisal tools in government can be discerned, with all groups employing process-related tools more frequently than 'substantive' content-related technical tools.

The Lumpiness Thesis: The Distribution of Policy Analysts in Canada

In his contribution to a 2007 collection on the state of policy analysis in Canada, the former head of the federal government Policy Research Initiative (Voyer 2007) suggested that the distribution of analytical capacities among government agencies was 'lumpy'. That is, that different units do not just have different supplies of analytical services – the usual subject of academic analyses – but also different *demands.* So that, in practice, not all units require the same capacity or capabilities in terms of policy analysis and therefore aggregate measures of overall government capacity require nuanced application with respect to specific agencies.

To date, this possible ecological fallacy in existing work on policy analysis and analytical practices and capacities in government has not been systematically investigated. However it is also the case that the venues of policy research extend beyond the governmental confines which Voyer (2007) discussed. That is, policy analysis and advice is not the exclusive pursue of professional analysts in government agencies but extends beyond them to the non-governmental sector in the form of analysis conducted by, for example, consultants and a range of NGOs, including think tanks and research councils among others (Craft and Howlett 2012). The distribution of capacities among the NGO community is even less well understood than that found among governments – the focus of virtually all previous research – and the relationships existing between the governmental and non-governmental components of policy advisory systems are almost completely unknown.

A plausible hypothesis, however, is to suggest that Voyer's 'lumpiness thesis' within government be extended to external components and overall policy advisory

systems. That is, that given supply and demand conditions overall and within each organization, not only should we expect the distribution of techniques, tasks and capacities to be varied across governments, but also across non-governmental analysts and between governmental and non-governmental actors as well.[1]

In what follows empirical evidence from the three sets of surveys undertaken over the period 2006-2013 by the authors into the activities of professional analysts in government, policy consultants, and analysts working for NGOs will be presented, along with data examining the distribution of capacities within government. This data allows us to examine the 'lumpiness' thesis – in both its original and extended form - in some detail for the first time, both in its limited and 'meta' forms.

Data and Methods

The paper is based on the results of three separate groups of surveys undertaken by the authors and their colleagues in 2006-2012.

The first set of surveys focused on the activities of professional policy analysts employed by federal and provincial governments in 2006-2009. The study examined the behavior and attitudes of core civil service policy actors in the Canadian "policy bureaucracy" (Page & Jenkins, 2005), a "typically" structured, Weberian, multi-level system of professional policy advice (Halligan, 1995; Waller, 1992).

A Westminster-style parliamentary democracy, Canada features a very decentralized form of federalism in which ten provincial (and to a lesser extent, three territorial) governments exercise exclusive control over significant areas of governmental activity including education, urban affairs, healthcare, natural resources and many important social welfare programs (Howlett, 1999). Other important areas

such as immigration, agriculture, criminal law and environmental policy are shared with the federal government. While the territorial governments and some provincial ones—such as Prince Edward Island with a population of only 140,000—are quite small, others such as the Province of Ontario (population 13,000,000) are as large or larger than many national governments. Given this circumstance, data were collected from two online sets of surveys: one covering federal employees and the other covering the provincial and territorial governments. Federal data came from two surveys conducted in 2006-2007. The first was a census of 1,937 people identified by members of the Regional Federal Council (an organization of senior federal civil servants located outside Ottawa) from all provinces and territories that undertook policy related work. The second was a random sample of 725 National Capital Region-based (Ottawa-Hull) policy employees identified from the Government Electronic Directory of Services (Wellstead & Stedman, 2010; Wellstead, Stedman and Lindquist, 2009). The federal response rates were 56.8 percent (n=1,125) and 56.4 percent (n=395) respectively, giving a total sample of 1,520 policy workers.

Provincial and territorial data were collected from each sub-national jurisdiction in 13 separate surveys conducted in late 2008 and early 2009. Respondents were identified from job titles listed in publically available sources such as online government telephone directories, organizational charts and manuals and members of commissions (Howlett, 2009; Howlett & Newman, 2010). This yielded a population of 3,856 policy-based actors and 1,357 responses were received for a response rate of 35.2 percent. The total population surveyed across the federal, provincial and territorial governments was thus 6,518 with an overall combined

national response rate of 2,877 or 44.15 percent.

Table 1: Sample Responses

	Sample frame	Sample	Respondents (n)	Response rate (%)
Federal	Census members of Regional Federal Council	1937	1125	56.8
Federal	Random sample of National Capital Region-based policy employees	725	395	56.4
Provincial	Census of publicly listed provincial and territorial policy employees	3856	1357	35.2
Total		6518	2877	44.1
Usable responses			2730	41.9

While the survey instruments used in these studies were very similar, they were not identical and some questions relevant to this inquiry relating to techniques of analysis were not included in the federal survey. Also the range of ministries and units varies by province and territory meaning it is difficult to arrive at an aggregate depiction of intra-governmental structure required for the analysis. As a result, the largest single provincial case, Ontario, is used as a proxy for the national professional policy analysts community. This is reasonable since (a) Ontario has by far the largest number of respondents in the survey so the results closely approximate the overall provincial and territorial findings and (b) separate analysis of the federal and provincial cases revealed a general pattern of close similarities between analysts working in the two levels of government (Howlett and Wellstead 2012).

The second set of surveys was conducted in 2010-2011 to probe the situation with non-governmental analysts employed by think tanks and research institutes. Two survey instruments were designed: 1) a government-based 192 variable (45 questions) questionnaire designed in part from previous capacity surveys by Howlett, and

Wellstead (Howlett 2009, Wellstead et al 2009) and intended to capture the dynamics of NGO-government interactions and 2) an NGO based 248 variable questionnaire (38 questions). Questions in both surveys 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 addressing their educational, previous work, and on-the-job training experiences. Both also contained standard questions relating to age, gender, and socioeconomic status.

The survey instrument was delivered to 2458 provincial policy analysts and 1995 analysts working in the NGO sector in the Canadian provinces of Ontario, Saskatchewan, and British Columbia. Four policy communities were selected for this survey: environment, health, immigration, and labour. The specific provinces and policy sectors dealt with in this study were chosen because they represent heterogeneous cases in terms of politics, history and economic and demographic scale. With respect to the three provinces, they present cases which include Ontario – Canada's largest province in economic and population terms (13.5 million people and representing 40% of Canadian GDP). Unlike most of Canada's other provinces, Ontario has a competitive three party political system where since 1990, all three have governed. British Columbia, presents 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 a free market coalition which has been housed within various parties. Saskatchewan was chosen as a small province (population of one million and 3 percent of national GDP). Its economy has largely been 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.

Mailing lists for both surveys were compiled, wherever possible, from publicly available sources such as online 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. Based on preliminary interviews with NGO organization representatives, we suspected that respondents would undertake a variety of non-policy related tasks. As a result, we widened the search 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 authors implemented an unsolicited survey in January 2012 using Zoomerang®, an online commercial software service. A total of 1510 returns were collected for a final response rate of 33.99 percent. With the exception of the NGO labour respondents, the percentage of respondents corresponded closely with population developed by the authors.

The third set of surveys was conducted in in 2012-2013 to assess the activities of external consultants hired by governments. Two surveys were conducted, one of government managers involved in contracting consultants and the other of consultants themselves. Both were surveyed in order to help understand how consultant's policy advice is solicited, developed, transferred, and used in the context of the Canadian policy advisory system. The consultant's survey was administered to companies that

had performed policy work for various levels of government in Canada between the years of 2004-2012. The consultants were identified through sampling of over 10,000 contracts contained in the federal government's Proactive Disclosure database.

The survey contained 45 questions on such subjects and was administered on-line (Survey Monkey) in December 2012 to 3228 e-mail addressed for consulting firms. Three hundred and thirty-three complete responses and 87 partial ones were received for a total of 420 responses and a response rate of 13 percent. The survey questionnaire was designed to replicate as far as possible the exact questions asked of federal, provincial and territorial permanent policy analysts by the authors in 2009-2010 in order to allow meaningful comparisons between these actors and others in the Canadian federal policy advisory system.

Findings

In what follows below some of the results of the three surveys are presented. The first set of findings is derived from the federal/provincial/territorial survey and deals with the original lumpiness hypothesis. The second set of results address the extended thesis.

The Distribution of Capacities within Government: Venues and Tools

The use of sophisticated policy analytical tools and techniques in government requires several pre-conditions to be met. On the supply-side, agencies undertaking such analyses require (a) access to high quality quantifiable data or information (Vining and Boardman 2007) and (b) the human resource and managerial capability to both demand and supply of such analysis (Howlett 2009). But not all agencies have or meet

these criteria or do not do so at all times and in all circumstances and exactly which kinds of agencies typically exhibit strength in this area, however, is uncertain and under-explored.

And on the demand-side, not all departments have the need for the same kinds of types of data and therefore can also be expected to exhibit a different pattern of the use of specific analytical techniques. Thus for example, some agencies like Finance or Treasury Board typically deal with relatively easily quantifiable issues (budgets, revenues and expenditures respectively) usually with plentiful historical and contemporary data assumed to be very accurate and precise, and are well resourced and able to hire staff or consultants who are interested in and can utilize this kind of evidence. They have always employed highly technical forms of analysis and are likely to continue to do so into the future. Other agencies deal with less quantifiable or contested data (for example, welfare and social services) and may not be interested or able to use it. Others fall in between – for example, many Health or Housing or Transport agencies which may have high quality data but may only use it sometimes; or like Public Works or Immigration may not have the data even if they are willing and are potentially or actually capable of using it (Howlett and Joshi 2011; Craft and Howlett 2012). However, once again, until now the actual empirics of the question – what kinds of analysis were actually practiced by analysts in different departments – remains unknown.

The top ten policy-related analytical techniques employed by policy analysts for the five selected Departments in the Ontario survey are shown below (see Table 1). Brainstorming (91.2%) is the most used technique and the those analysts working

on Environmental issues tend to use this technique the most (94.8%). Consultation Exercises is a distant second at 76.3%, with analysts working on Education issues using this technique the most at 82.1%. Risk Analysis and Checklists are ranked third and fourth respectively with the Health analysts (74.3%) and Environmental analysts (70.7%) as the most frequent users.

As expected, Cost-Benefit Analysis and Scenario Analysis are ranked fifth and sixth with the Finance department as the top user for both analytical techniques (74.3% and 63.5%). The next ranked technique is Expert Judgments and Elicitation used by the Environment department (63.8%). The Finance department uses Financial Impact Analysis (73%) and Cost-effectiveness Analysis (58.1%) the most in their field of work. And Focus Groups is rarely used by the Finance department (27%) and mostly used by the Education department (46.3%).

Table 2: Top Ten Policy-Related Analytical Techniques Employed by selected Departments

Techniques (Top Ten)	Education	Environment	Finance	Health	Transportation	Total Responses
Brainstorming	86.3%	94.8%	86.5%	96.0%	91.3%	91.2%
Consultation Exercises	82.1%	80.2%	68.9%	77.2%	63.8%	76.3%
Risk Analysis	66.3%	65.5%	67.6%	74.3%	59.4%	66.7%
Checklists	69.5%	70.7%	58.1%	66.3%	58.0%	62.7%
Cost Benefit Analysis (CBA)	60.0%	60.3%	74.3%	50.5%	58.0%	57.9%
Scenario Analysis	60.0%	57.8%	63.5%	53.5%	50.7%	56.2%
Expert Judgments and Elicitation	51.6%	63.8%	52.7%	51.5%	55.1%	53.1%
Financial Impact Analysis	54.7%	41.4%	73.0%	45.5%	46.4%	47.2%
Cost-effectiveness Analysis	46.3%	44.0%	58.1%	50.5%	37.7%	45.5%
Focus Groups	46.3%	34.5%	27.0%	42.6%	31.9%	38.1%

As this table shows, there are some distinct differences across areas of activity with respect to the kinds of analytical techniques and tools used. Finance dominates every 'technical' type of analysis except risk analysis and scores low on 'consultation' activity and 'soft' techniques, while transportation scores lowest on most measures. Environment scores lowest on most 'hard' techniques and high on techniques such as expert elicitation. Education is also low on most 'hard' techniques although it is higher on financial impact analysis and Health is low on most techniques but high on risk analysis.

This analysis suggests that units and task areas have their own particularities and needs but that some general conclusions can be made about the nature of hard/soft technique use based on the general nature of the tasks each unit is assigned. That is, this evidence suggests that the distribution (supply and demand) for analysis differs by agency venue – i.e. that it is 'lumpy' – but that the lumpiness is not random but can be traced back to the fundamental task or mission of each agency. This is very much along the lines Voyer (2007) initially suggested.

Tables 3, 4 and 5 below provide additional evidence of this. Table three looks at the entire provincial & territorial dataset and find differences in the use of techniques of evidence-based or evidence-informed policy analysis among six major activity areas with more activity in this area in health, the field in which the idea of evidence-based policy-making originated. Table 4 looks at several aspects of the task environment faced by analysts in different units and finds significant variations across the six sectors there as well. Finally Table 4 provides a self-assessment made by the

analysts themselves concerning the level of policy capacity their unit enjoyed. Again, significant variations exist by area of government activity.

Table 3. Use of Evidence Informed Methods (EIM), by Sector

	Percent of respondents who "often" or "always" feel...				
	...evidence informs decision-making	...they can access information and data relevant to their policy work	...encouraged by managers to use EIM in policy work	...required to use EIM in policy work	...provided with support and resources to use EIMs in policy work
Environment	33.0	32.6	28.0	33.0	10.2
Welfare	52.4	31.7	48.3	52.4	22.9
Health	60.0	48.2	54.0	60.0	31.7
Education	51.4	44.9	49.5	51.4	30.7
Trade	42.9	37.7	37.8	42.9	16.8
Finance	43.2	38.7	36.3	43.2	25.0

Table 4. Nature of Issues Dealt with on a Weekly Basis

	Percentage of respondents who *weekly* deal with issues ...				
	... for which data is not immediately available	... that require coordination across regions	.... that require coordination with other levels of government	... that lack a single, clear, simple solution	... that require specialist or technical knowledge
Environment	54.1	44.0	33.7	66.7	69.0
Health	50.2	32.5	16.6	63.3	41.2
Social Development	55.8	40.0	24.9	63.0	52.1
Education	45.8	22.3	17.6	47.1	37.4
Industry and Trade	58.3	27.2	29.0	62.6	59.9
Finance	49.5	17.3	20.9	59.2	61.9
Total	**52.6**	**32.5**	**24.1**	**61.6**	**61.9**

As Table 4 shows, despite having very different technical practices, most analysts felt their units enjoyed relatively high levels of policy analytical capacity, with only health reporting less than 30 percent high figures. This implies that analysts outside of the health sector were satisfied with the range of techniques their units practiced, their dissimilar profiles notwithstanding.

Table 4. Department Policy Capacity, by sector

	Policy-making capacity rating of one's department or agency, by % of respondents		
Sector	**Low**	**Moderate**	**High**
Environment	21.4	31.0	47.7
Social Welfare	19.2	34.9	45.9
Health	25.3	45.2	29.4
Education	19.3	40.4	40.3
Trade	17.5	43.8	36.9
Finance	11.5	37.5	51.1
Total	**19.8**	**37.9**	**42.2**

The Overall Distribution of Capacity between Governmental and Non-Governmental actors

The tables in this section address the larger, extended, version of the Voyer lumpiness thesis; that is extending it beyond different units of government to address differences in capacity and techniques across different venues outside of governments. Here the two key groups to be compared with professional analysts inside government were professional consultants who worked on a temporary contract basis for governments and analysts located in some of the NGOs with whom government officials, and consultants, interact.

Comparing the level of formal education between analysts and consultants and NGOs (see Table 5), about 75% of the policy consultants have a Graduate or

Professional degree, with 23% having a University degree. 56% of the policy analysts have at least some graduate or professional education and fully 90% attaining college or university-level credentials. For those working in the NGOs, the level of formal education is evenly split relative to the analysts and consultants at 51% and 44% (Evans and Wellstead 2013).

Table 5: Comparison of Formal Education between Analysts, Consultants and NGOs

Degrees	Policy Analysts	Policy Consultants	NGOs
Graduate or Professional	56%	75%	51%
College or University	42%	23%	44%

This suggests that the range of qualifications found in the internal and external part of the professional analytical community differ, with policy consultants tending to be more qualified (based on graduate and professional accreditations) than the policy analysts in government and those working for NGOs.

The areas of training are different as well by venue. Policy consultants tend to have a university degree (top five) in Economics (23.4%), Business Management (22.5%), Engineering (15.7%), Political Science (12.4%) and Public Administration (10.4%) and these five fields account for about 85% of degrees (allowing for multiple degrees) conferred. In comparison, the five leading degree fields of policy analysts were Political Science (16%), Business Management (14.2%), Economics (11.7%), Public Administration (9.9%) and Sociology (7.8%). These five fields accounted for about 60% of degrees (allowing for multiple degrees) conferred, while a wide range of other social science, law and humanities accounted for another 40% of credentials

(Howlett & Newman, 2010) The top five fields for NGOs are General Social Sciences, Business Management, Arts and Humanities, Political Science and Public Administration (Evans and Wellstead 2013). (see Table 6). There are similarities in the fields of study as Business Management features highly in all three, but overall many analysts in government tend to be educated in Political Science and public administration, consultants in Economics and NGOs in Sociology. This suggests a certain amount of self-selection by intellectual orientation among analysts in each category. However it also highlights the lack of training in areas such as the natural sciences, engineering or law which used to comprise a sizable component of all three groups.

Table 6: Comparison of Degree Subject Areas between Analysts, Consultants and NGOs

Degree Subject Area (Top Five)	Policy Analysts	Policy Consultants	NGOs
1	Political Science	Economics	General Social Sciences
2	Business Management	Business Management	Business Management
3	Economics	Engineering	Arts and Humanities
4	Public Administration	Political Science	Political Science
5	Sociology	Public Administration	Public Administration

More important that disciplinary background, however, for our purposes, is training in specific subjects such as policy analysis. About 40% of policy consultants (42.7%) and about the same number of policy analysts in government (36.7%) had

taken three or more policy related courses at the post-secondary level. However only 19.5% of the NGOs had done similar courses. And only 23.6% of NGOs analysts had completed specific courses in policy analysis versus 36.6% of policy consultants and 39.8% of policy analysts. Almost 70% of NGOs, versus 47.3% of policy consultants and 58.1% of policy analyst, did not complete any specific post-secondary courses on formal policy analysis or evaluation. And about one third of NGOs (34.5%), policy consultants (38.6%) and even more policy analysts (44.9%) had not taken any policy related courses at all (Evans and Wellstead 2013). (see Table 7)

Table 7: Policy-related courses taken at the Post-secondary level

Policy-related courses	Policy Analysts	Policy Consultants	NGOs
Taken three or more policy related courses at the post-secondary level	36.7%	42.7%	19.5%
Have not taken any policy related courses	44.9%	38.6%	34.5%
Completed specific post-secondary courses on formal policy analysis or evaluation	39.8%	36.6%	23.6%
Did not complete any specific post-secondary courses on formal policy analysis or evaluation.	58.1%	47.3%	69.9%

An other question related to the use of specific techniques of policy analysis by these analysts has to do with their work practices. Policy consultants (84%) and

NGOs (68%) tend to work in groups of 1-5, while 10% of consultants and 15% of NGOs work in groups of 6-10 (Evans and Wellstead 2013). This is in contrast to policy analysts in government where almost 65% of analysts work in units of less than 10 employees and about 30% in units of less than five full-time equivalent employees (See Table 8). And almost 55% of these units have fewer than five policy analysts actually working on policy issues (Howlett & Newman, 2010). This suggests that whatever skills consultants and NGO workers have individually represents the sum of the skills which will be brought to bear on a subject, while policy analysts in government,, not surprisingly are much better resourced.

Table 8: Comparison of Working Group Size between Analysts, Consultants and NGOs

Working Group Size	Policy Analysts	Policy Consultants	NGOs
Groups of 1-5	30%	84%	68%
Groups of 6-10	65%	10%	15%

These variations in capacities are reflected in the kinds of roles or tasks taken on by different group members. While this question was not asked of NGO members, policy consultants and analysts share similar types of roles but not with the same frequency. Policy consultants, for example, take on the roles of advisor (61.6%), analyst (57.5%), and researcher (50%) in their respective consultancies. While for policy analysts the advisors make up 79.6%, the analysts 73.5% and the researchers only 40.6%. (See Table 9).

Table 9: Roles Taken by Analysts and Consultants

Type of Roles Taken	Policy Analysts	Policy Consultants
1	Advisors (79.6%)	Advisors (61.6%)
2	Analysts (73.5%)	Analysts (57.5%)
3	Researchers (40.6%)	Researchers (50%)

The top three policy-related tasks which policy consultants undertake include research and analysis (83.1%), provided advice (77%), and provided options on issues (60.9%). Besides policy development, policy consultants have to fulfill functions of project management (47.9%), communications (40.8%), and program delivery (35.6%). Similarly, policy analysts undertake research and analysis (92.5%), provide advise (92.2%), and prepare briefing notes or position papers (90.6%). In comparison, NGOs consult with stakeholders (95.8%), identify policy issues (94.2%), and consult with decision-makers (90.5%) (Evans and Wellstead 2013) (See Table 10).

Table 10: Policy-Related Tasks undertaken by Analysts, Consultants and NGOs

Policy-Related Tasks (Top Three)	Policy Analysts	Policy Consultants	NGOs
1	Research and Analysis (92.5%)	Research and Analysis (83.1%)	Consult with stakeholders (95.8%)
2	Provided advice (92.2%)	Provided advice (77%)	Identify policy issues (94.2%)
3	Prepare briefing notes or position papers (90.6%)	Provided options on issues (60.9%)	Consult with decision-makers (90.5%)

For tasks that are ongoing for more than a year, 32.5% of policy consultants spend their time on such tasks annually. Similarly, 40% of policy analysts report fairly

frequently working on issues that are ongoing for more than a year (Howlett & Newman, 2010).

When it comes to their preferred techniques themselves, this question again was only asked of consultants and analysts in government. The top two policy-related analytical techniques which policy consultants employ are brainstorming (69.5%), consultation exercises (66.8%), much the same as policy analysts. However the third choice is quite different and revealing, with focus groups (57.2%) being the third most used technique among consultants and risk analysis . Cost-benefit analysis is used by 54.7% of the policy consultants and by over 50% of the policy analysts (Howlett & Newman, 2010) (See Table 11).

Table 11: Policy-Related Analytical Techniques employed by Analysts and Consultants

Policy-Related Analytical Techniques (Top Three)	Policy Analysts	Policy Consultants
1	Brainstorming (90.4%)	Brainstorming (70%)
2	Consultation (75.4%)	Consultation Exercises (67%)
3	Risk Analysis (67.6%)	Focus Groups (57.2%)

A fuller description of the techniques used by each group of analysts and a comparison of similarities and differences is set out in Tables 11 and 12 below

Table 11: Similarities in Analytical Techniques Employed

Similarities (within 7%)	Analysts	Consultants
Specific analytical technique(s) used.		
	Percent	Percent
High Use (>50%)		
Consultation exercises	67.5	66.7
Cost benefit analysis	53.6	55.0
Expert judgments and elicitation	47.8	53.4
Scenario analysis	50.3	47.3
Cost-effectiveness analysis	41.7	41.7
Medium Use (>10% and <40%)		
Problem-mapping	31.1	33.8
Financial impact analysis	38.3	31.8
Decision/probability trees	22.9	29.5
Environmental impact assessment	27.6	22.4
Robustness or sensitivity analysis	15.9	18.1
Low Use (< 10%)		
Preference scaling	7.0	6.4
Free-form gaming or other policy exercises	6.2	3.8
Markov chain modeling	0.8	1.8

Table 12 – Differences in Analytical Techniques Employed

	Analysts	Consultants	Difference
Specific analytical technique(s) used.			
	Percent	Percent	
High Use (>50%)			
Brainstorming	82.5	69.7	Govt +12.8
Focus groups	37.8	57.3	Cons +19.5
Medium Use (>10% and <50%)			
Check lists	60.1	33.3	Govt +26.8
Development of sophisticated modeling	11.2	26.7	Cons +15.5
Low Use (< 10%)			
Monte Carlo techniques	1.5	10.4	Cons +8.9
Process influence or social network diagrams	8.1	14.2	Cons +6.1

Both policy consultants and policy analysts have similar techniques that are not so frequently used, for example, preference scaling, free-form gaming or other policy exercises, and Markov Chain Modeling.

Conclusion

Until recently, only very weak and partial, usually anecdotal, information existed on the situations found in different countries with respect to the activities of policy analysts in general. Thirty-five years ago, for example, Arnold Meltsner (1976) observed in the case of the U.S. that analysts undertook a number of roles in the policy-making process, most of which did not involve neutral information processing and analysis and which could not be said to amount to activities linked to policy learning. Later observers, such as Beryl Radin (2000), Nancy Shulock (1999) and Sean Gailmard and John Patty (2007) observed much the same situation, along with a propensity for politicians to continually re-enact the same failed policies in many problem areas (Schultz 2007). In the United Kingdom and Germany, for example, contrary to the picture of carefully recruited analysts trained in policy schools to undertake specific types of microeconomic-inspired policy analysis (Weimer and Vining 1999), investigators such as Edward Page and Bill Jenkins (2005) and Julia Fleischer (2009) have provided some empirical evidence that British and German policy-making typically features a group of "policy process generalists" who rarely, if ever, deal with policy matters in the substantive areas in which they were trained and who have, in fact, very little training in formal policy analysis.[2]

Whether such generalizations can be made, and the extent to which the average picture accurately describes the situation in most venues, however, has

remained an open question until now. Overall the data presented here displays a picture of government, as a whole, exhibiting a very "lumpy' distribution of capacities and technical capabilities and utilization practices (Voyer 2007).

The paper develops this idea and argues that some departments and agencies enjoy favorable circumstances which allow them to practice sophisticated analytical techniques while others may only meet these criteria from time to time depending on factors such as the nature of the internal and external training analysts receive, their job expectations and task descriptions, the nature of the issues and tasks they commonly face in their work and managerial demands and leadership. The ability of agencies to employ and utilize these external sources of analytical capacity varies by agency (Howlett and Migone 2013) and 'lumpiness' may well be a condition which is here to stay.

Although some of this 'lumpiness' can be offset through the use of external consultants (Speers 2007), new data presented in this paper suggests that even here the capacities and types of analysis practiced by analysts in governmental and non-government venues is quite different and 'lumpy' as well. Although the full implications of these differences remains to be spelled out, the existence of both local and extended uneven distributions of capacities and analytical practices is a prognosis which has significant implications for the promotion of specific kinds of practices in government and the NGO and private sector and for paedagogy in the policy sciences as a whole.

Endnotes

[1] A subordinate hypothesis would be to expect that some aspects of non-governmental capacities could be used to bolster gaps in the governmental level, and possibly vice-versa, so that the relationship between the two components of the Canadian policy advisory system would be a complimentary, synergistic one, rather than a purely duplicative or redundant one. Thus as John Halligan suggested:

> The conventional wisdom appears to be that a good advice system should consist of at least three basic elements within government: a stable and reliable in-house advisory service provided by professional public servants; political advice for the minister from a specialized political unit (generally the minister's office); and the availability of at least one third-opinion option from a specialized or central policy unit, which might be one of the main central agencies (Halligan 1995 p. 162).

This is a subject of another research project currently underway among some of the authors.

[2] Similar findings have been made in the cases of the Netherlands, Australia and New Zealand, by Robert Hoppe and Margarita Jeliazkova (2006), Patrick Weller and Bronwyn Stevens (1998) and Jonathan Boston and his colleagues (1996), respectively.

References

Bernier, Luc, and Michael Howlett. "La Capacité D'analyse Des Politiques Au Gouvernement Du Québec : Résultats Du Sondage Auprès De Fonctionnaires Qué Bé Cois." *Canadian Public Administration* 54, no. 1 (2011): 143–152.

Boston, Jonathan, John Martin, June Pallot, and Pat Walsh. *Public Management: The New Zealand Model*. Auckland: Oxford University Press, 1996.

Carroll, P., and A. Kellow. *The OECD: A Study of Organisational Adaptation*. Edward Elgar Pub, 2011.

Colebatch, H. K. "Policy Analysis, Policy Practice and Political Science." *Australian Journal of Public Administration* 64, no. 3 (2005): 14–23.

Colebatch, H. K., and B. A. Radin. "Mapping the Work of Policy." In *The Work of Policy: An International Survey*, edited by Colebatch, H.K., 217–226. New York: Rowman and Littlefield, 2006.

Colebatch, Hal K. "What Work Makes Policy?" *Policy Sciences* 39, no. 4 (November 2006): 309–321. doi:10.1007/s11077-006-9025-4.

Colebatch, Hal K., Robert Hoppe, and Mirko Noordegraaf, eds. *Working for Policy*. Amsterdam University Press, 2011.

Connaughton, Bernadette. "'Glorified Gofers, Policy Experts or Good Generalists': A Classification of the Roles of the Irish Ministerial Adviser." *Irish Political Studies* 25, no. 3 (September 2010): 347–369. doi:10.1080/07907184.2010.497636.

Craft, Jonathan, and Michael Howlett. "Policy Formulation, Governance Shifts and Policy Influence: Location and Content in Policy Advisory Systems." *Journal of Public Policy* 32, no. 02 (2012): 79–98. doi:10.1017/S0143814X12000049.

Craft, Jonathan, and Michael Howlett. "Subsystem Structures, Shifting Mandates and Policy Capacity: Assessing Canada's Ability to Adapt to Climate Change." *Canadian Political Science Review* 6, no. 1 (July 4, 2012): 3–14.

deLeon, P. "Policy Formulation: Where Ignorant Armies Clash By Night." *Policy Studies Review* 11, no. 3/4 (1992): 389–405.

Dobuzinskis, Laurent, Michael Howlett, and David Laycock, eds. *Policy Analysis in Canada: The State of the Art*. Toronto: University of Toronto Press, 2007.

Dunn, W. *Public Policy Analysis: An Introduction*. Upper Saddle River, New Jersey: Pearson/Prentice Hall, 2004.

Eichbaum, Chris, and Richard Shaw. "Ministerial Advisers and the Politics of Policy-Making: Bureaucratic Permanence and Popular Control." *The Australian Journal of Public Administration* 66, no. 4 (2007): 453–467.

Eichbaum, Chris, and Richard Shaw.. "Political Staff in Executive Government: Conceptualising and Mapping Roles Within the Core Executive." *Australian Journal of Political Science* 46, no. 4 (December 2011): 583–600. doi:10.1080/10361146.2011.623668.

Evans, Bryan, and Adam Wellstead. "Policy Dialogue and Engagement Between Non-Government Organizations and Government: A Survey of Canadian Policy Workers." *Central European Journal of Public Policy*, 2013 forthcoming

Fleischer, Julia. "Power Resources of Parliamentary Executives: Policy Advice in the UK and Germany." *West European Politics* 32, no. 1 (2009): 196–214.

Gailmard, Sean, and John W. Patty. "Slackers and Zealots: Civil Service, Policy Discretion, and Bureaucratic Expertise." *American Journal of Political Science* 51, no. 4 (2007): 873–889.

Gill, Judith I., and Laura Saunders. "Toward a Definition of Policy Analysis." *New Directions for Institutional Research* 1992, no. 76 (1992): 5–13. doi:10.1002/ir.37019927603.

Halligan, John. "Policy Advice and the Public Sector." In *Governance in a Changing Environment*, edited by B. Guy Peters and Donald T. Savoie, 138–172. Montreal: McGill-Queen's University Press, 1995.

Hertin, Julia, John Turnpenny, Andrew Jordan, Mans Nilsson, Duncan Russel, and Bjorn Nykvist. "Rationalising the Policy Mess? Ex Ante Policy Assessment and the Utilization of Knowledge in the Policy Process." *Environment and Planning A* 41 (2009): 1185–1200.

Hoppe, R., and M. Jeliazkova. "How Policy Workers Define Their Job: A Netherlands Case Study." In *The Work of Policy: An International Survey*, edited by H. K. Colebatch, 35–60. New York: Rowman and Littlefield, 2006.

Howlett, M. "Federalism and Public Policy." In *Canadian Politics - Third Edition*, edited by J. Bickerton and A. Gagnon. Peterborough: Broadview Press, 1999.

Howlett, Michael, and Adam Wellstead. "Policy Analysts in the Bureaucracy Revisited: The Nature of Professional Policy Work in Contemporary Government." *Politics & Policy* 39, no. 4 (August 1, 2011): 613–633. doi:10.1111/j.1747-1346.2011.00306.x.

Howlett, Michael, and Adam Wellstead. "Professional Policy Work in Federal States: Institutional Autonomy and Canadian Policy Analysis." *Canadian Public Administration* 55, no. 1 (2012): 53–68.

Howlett, Michael, and Andrea Migone. "The Permanence of Temporary Services: The Reliance of Canadian Federal Departments on Policy & Management Consultants." *Canadian Public Administration* Forthcoming (2013).

Howlett, Michael, and Joshua Newman. "Policy Analysis and Policy Work in Federal Systems: Policy Advice and Its Contribution to Evidence-based Policy-

making in Multi-level Governance Systems." *Policy and Society* 29, no. 1 (March 2010): 123–136. doi:10.1016/j.polsoc.2010.03.004.

Howlett, Michael, and Sima Joshi-Koop. "Transnational Learning, Policy Analytical Capacity, and Environmental Policy Convergence: Survey Results from Canada." *Global Environmental Change* 21, no. 1 (February 2011): 85–92. doi:10.1016/j.gloenvcha.2010.10.002.

Howlett, Michael. "Policy Analytical Capacity and Evidence-Based Policy-Making: Lessons from Canada." *Canadian Public Administration* 52, no. 2 (2009): 153–175.

Linder, S. H., and B. G. Peters. "Policy Formulation and the Challenge of Conscious Design." *Eval.Program Plann.* 13 (1990): 303–311.

Mayer, I., P. Bots, and E. van Daalen. "Perspectives on Policy Analysis: A Framework for Understanding and Design." *International Journal of Technology, Policy and Management* 4, no. 1 (2004): 169–191.

Meltsner, A. J. *Policy Analysts in the Bureaucracy*. Berkeley: University of California Press, 1976.

Mushkin, Selma J. "Policy Analysis in State and Community." *Public Administration Review* 37, no. 3 (June 1977): 245–253.

Nilsson, Mans, Andrew Jordan, John Turnpenny, Julia Hertin, Bjorn Nykvist, and Duncan Russel. "The Use and Non-Use of Policy Appraisal Tools in Public Policy Making: An Analysis of Three European Countries and the European Union." *Policy Sciences* 41 (2008): 335–355.

Nilsson, Mans, Andrew Jordan, John Turnpenny, Julia Hertin, Bjorn Nykvist, and Duncan Russel. "The Use and Non-Use of Policy Appraisal Tools in Public Policy Making: An Analysis of Three European Countries and the European Union." *Policy Sciences* 41 (2008): 335–355.

Noordegraaf, Mirko. "Academic Accounts of Policy Experience." In *Working for Policy*, edited by Hal Colebatch, Robert Hoppe, and Mirko Noordegraaf, 45–67. Amsterdam: University of Amsterdam Press, 2011.

Page, E. C., and B. Jenkins. *Policy Bureaucracy: Governing with a Cast of Thousands*. Oxford: Oxford University Press, 2005.

Page, Edward C. "Bureaucrats and Expertise: Elucidating a Problematic Relationship in Three Tableaux and Six Jurisdictions." *Sociologie Du Travail* 52, no. 2 (2010): 255–273. doi:10.1016/j.soctra.2010.03.021.

Perl, Anthony, and Donald J. White. "The Changing Role of Consultants in Canadian Policy Analysis." *Policy & Society* 21, no. 1 (2002): 49–73.

Radin, B. A. *Beyond Machiavelli: Policy Analysis Comes of Age*. Washington DC: Georgetown University Press, 2000.

Rissi, Christof, and Fritz Sager. "Types of Knowledge Utilization of Regulatory Impact Assessments: Evidence from Swiss Policymaking." *Regulation & Governance* (2013): n/a–n/a. doi:10.1111/rego.12002.

Saint-Martin, Denis. "Management Consultants, the State, and the Politics of Administrative Reform in Britain and Canada." *Administration Society* 30, no. 5 (November 1, 1998a): 533–568. doi:10.1177/0095399798305003.

Saint-Martin, Denis. "The Politics of Management Consulting in Public Sector Reform»." In *Handbook of Public Management*, edited by Christopher Pollitt and Lawrence Lynn, 84–106. Oxford: Oxford University Press, 2005.

Saint-Martin, Denis.. "The New Managerialism and the Policy Influence of Consultants in Government: An Historical–Institutionalist Analysis of Britain, Canada and France." *Governance* 11, no. 3 (1998b): 319–356. doi:10.1111/0952-1895.00074.

Schultz, David. "Stupid Public Policy Ideas and Other Political Myths." *Unpublished Paper* (2007).

Shaw, Richard, and Chris Eichbaum. "Ministers, Minders and the Core Executive: Why Ministers Appoint Political Advisers in Westminster Contexts." *Parliamentary Affairs* (November 8, 2012). doi:10.1093/pa/gss080.

Shulock, N. "The Paradox of Policy Analysis: If It Is Not Used, Why Do We Produce So Much Of It?" *Journal of Policy Analysis and Management* 18, no. 2 (1999): 226–244.

Sidney, Mara S. "Policy Formulation: Design and Tools." In *Handbook of Public Policy Analysis: Theory, Politics and Methods*, edited by Frank Fischer, Gerald J. Miller, and Mara S. Sidney, 79–87. New Brunswick, N. J.: CRC Taylor & Francis, 2007.

Speers, Kimberly. "The Invisible Public Service: Consultants and Public Policy in Canada." In *Policy Analysis in Canada: The State of the Art*, edited by L. Dobuzinskis, M. Howlett, and D. Laycock, 220–231. Toronto: University of Toronto Press, 2007.

Sullivan, Helen. "'Truth' Junkies: Using Evaluation in UK Public Policy." *Policy & Politics* 39, no. 4 (2011): 499–512. doi:10.1332/030557311X574216.

Tiernan, Anne. "Advising Australian Federal Governments: Assessing the Evolving Capacity and Role of the Australian Public Service." *Australian Journal of Public Administration* 70, no. 4 (December 1, 2011): 335–346. doi:10.1111/j.1467-8500.2011.00742.x.

Turnpenny, John, Claudio M. Radaelli, Andrew Jordan, and Klaus Jacob. "The Policy and Politics of Policy Appraisal: Emerging Trends and New Directions." *Journal of European Public Policy* 16, no. 4 (2009): 640–653.

Vining, Aidan R., and Anthony C. Boardman. "The Choice of Formal Policy Analysis Methods in Canada." In *Policy Analysis in Canada: The State of the Art*, edited by Laurent Dobuzinskis, Michael Howlett, and David Laycock, 48–85. Toronto: University of Toronto Press, 2007.

Vining, Aidan R., and Anthony C. Boardman. "The Choice of Formal Policy Analysis Methods in Canada." In *Policy Analysis in Canada: The State of the Art*, edited by Laurent Dobuzinskis, Michael Howlett, and David Laycock, 48–85. Toronto: University of Toronto Press, 2007.

Vining, Aidan R., and David L. Weimer. *Foundations of Public Administration: Policy Analysis*. Public Administration Review, Foundations of Public Administration., 2010.

Voyer, Jean-Pierre. "Policy Analysis in the Federal Government: Building the Forward-Looking Policy Research Capacity." In *Policy Analysis in Canada:*

The State of the Art, edited by L. Dobuzinskis, M. Howlett, and D. Laycock, 123–131. Toronto: University of Toronto Press, 2007.

Waller, Mike. "Evaluating Policy Advice." *Australian Journal of Public Administration* 51, no. 4 (1992): 440–449.

Weimer, David, and Aidan R. Vining. *Policy Analysis: Concepts and Practice*. 5th ed. Pearson, 2010.

Weller, Patrick, and Bronwyn Stevens. "Evaluating Policy Advice: The Australian Experience." *Public Administration* 76, no. Autumn (1998): 579–589.

Wellstead, Adam M., Richard C. Stedman, and Evert A. Lindquist. "The Nature of Regional Policy Work in Canada's Federal Public Service." *Canadian Political Science Review* 3, no. 1 (2009): 34–56.

Wellstead, Adam, and Richard Stedman. "Policy Capacity and Incapacity in Canada's Federal Government -- The Intersection of Policy Analysis and Street-level Bureaucracy." *Public Management Review* 12, no. 6 (2010): 893–910. doi:10.1080/14719037.2010.488863.

Wildavsky, A. B. *Speaking Truth to Power: The Art and Craft of Policy Analysis*. Boston: Little-Brown, 1979.