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Policy analytical capacity and evidence-based policy-making: Lessons from Canada

Abstract: Evidence-based policy-making represents a contemporary effort to reform or re-structure policy processes in order to prioritize evidentiary or data-based decision-making. Like earlier efforts in the ''policy analysis movement,'' its aim is to avoid or minimize policy failures caused by a mismatch between government expectations and actual, on-the-ground conditions through the provision of greater amounts of policy-relevant information. A significant factor affecting the ability of policy-makers to engage in evidence-based policy-making pertains to both governmental and non-governmental ''policy analytical capacity.'' That is, governments require a reasonably high level of policy analytical capacity to perform the tasks associated with managing the policy process in order to implement evidence-based policy-making and avoid several of the most common sources of policy failures. Recent studies, however, suggest that, even in advanced countries such as Canada, the level of policy analytical capacity found in many governments and non-governmental actors is low, potentially contributing to both a failure of evidence-based policy-making as well as effectively dealing with many complex contemporary policy challenges.

Sommaire: L'élaboration de politiques axée sur des éléments probants représente un effort contemporain de réforme ou de structuration des processus de politiques dans le but de donner la priorité à la prise de décisions s'appuyant sur les preuves ou fondée sur les données. Comme pour les efforts antérieurs du « mouvement d'analyse de politiques », le but est d'éviter ou de minimiser les échecs de politiques causés par un décalage entre les attentes du gouvernement et les conditions réelles sur le terrain, grâce à la disposition de plus amples informations pertinentes aux politiques. Un facteur important touchant à l'aptitude des élaborateurs de politiques à s'engager dans une élaboration de politiques axée sur les éléments probants est lié à la « capacité d'analyse de politiques » aussi bien gouvernementale que non gouvernementale. C'est-à-dire que les gouvernements exigent un niveau raisonnablement élevé de capacité d'analyse de politiques en vue d'exécuter les tâches associées à la gestion du

processus politique pour mettre en œuvre l'élaboration de politiques axée sur les éléments probants et éviter ainsi plusieurs sources courantes d'échecs de politiques. Néanmoins, des études récentes laissent entendre que, même dans les pays développés comme le Canada, le niveau de capacité d'analyse de politiques observé dans de nombreux gouvernements et chez un grand nombre d'acteurs non gouvernementaux est faible ; cela pourrait éventuellement contribuer à la fois à un échec de l'élaboration de politiques axées sur les éléments probants ainsi qu'à l'échec de régler efficacement de nombreux problèmes contemporains complexes en matière de politiques.

Policy analysis is a relatively recent movement, dating back to the 1960s and the U.S. experience with large-scale planning processes in areas such as defence, urban redevelopment and budgeting (Behn 1981; Garson 1986; Lindblom 1958; MacRae and Wilde 1985; Wildavsky 1969). Seen as a social movement, it represents the efforts of actors inside and outside formal political decision-making processes to improve policy outcomes by applying systematic evaluative rationality to public problems and concerns (Aberbach and Rockman 1989; Mintrom 2007). There have been debates about whether policy analysis has improved on the outcomes associated with processes such as bargaining, compromise, negotiation and log-rolling that are less instrumental (Uhr 1996; Colebatch 2006; Majone 1989). However, from within the policy analytical community, there has been no fundamental challenge to the primary *raison d'être* of policy analysis: to improve policy outcomes by applying systematic analytic methodologies to policy appraisal, assessment and evaluation (MacRae 1991; Nilsson et al. 2008; Radin 2000). Evidence-based or "evidence-informed" policy-making represents a recent effort to again reform or re-structure policy processes by prioritizing evidentiary decision-making criteria (Nutley, Walter, and Davies 2007; Pawson 2006; Sanderson 2006). This is being done in an effort to avoid or minimize policy failures caused by a mismatch between government expectations and actual, on-the-ground conditions. The evidence-based policy movement is thus the latest in a series of efforts undertaken by reformers in governments over the past half-century to enhance the efficiency and effectiveness of public policy-making. In all of these efforts, it is expected that through a process of theoretically informed empirical analysis, governments can better learn from experience and both avoid repeating the errors of the past as well as better apply new techniques to the resolution of old and new problems (Sanderson 2002a; May 1992).

Exactly what constitutes "evidence-based policy-making" and whether analytical efforts in this regard actually result in better or improved policies, however, are topics that remain contentious in the literature on the subject (Boaz et al. 2008; Jackson 2007; Packwood 2002; Pawson 2002). A spate of studies, for example, has questioned the value of a renewed emphasis on the

collection and analysis of large amounts of data in policy-making circumstances (Tenbensel 2004). Among the concerns raised about an increased emphasis on evidence in contemporary policy-making are the following:

1. Evidence is only one factor involved in policy-making and is not necessarily able to overcome other factors such as constitutional divisions of powers or jurisdictions, which can arbitrarily assign locations and responsibilities for particular issue areas to specific levels or institutions of government and diminish the rationality level of policy-making by so doing (Davies 2004; Radin and Boase 2000; Young et al. 2002).
2. Data collection and analytical techniques employed in its gathering and analysis by specially trained policy technicians may not be necessarily superior to the experiential judgments of politicians and other key policy decision-makers (Jackson 2007; Majone 1989).
3. The kinds of "high-quality" and universally acknowledged evidence initially proposed when "evidence-based policy-making" first entered the lexicon of policy analysts in the health-care field – especially the "systematic review" of clinical findings – often has no analogue in many policy sectors, where generating evidence using the "gold standard" of random clinical trial methodologies may not be possible (Innvaer et al. 2002; Pawson et al. 2005).
4. An increased emphasis on evidence-based policy-making can stretch the analytical resources of participating organizations, be they governmental or non-governmental, to the breaking point (Hammersley 2005). That is, government efforts in this area may have adverse consequences both for themselves in terms of requiring greater expenditures on analytical activities at the expense of operational ones. This is also true for many non-governmental policy actors, such as small-scale NGOs whose analytical resources may be non-existent and who may also be forced to divert financial, personnel and other scarce resources from implementation activities to policy-making in order to meet increased government requests for more and better data on the merits and demerits of their proposed policy solutions and programs (Laforest and Orsini 2005).

> *Organizations both inside and outside of governments require a level of human, financial, network and knowledge resources enabling them to perform the tasks associated with managing and implementing an evidence-based policy process*

Some of these concerns are misplaced or easily refuted and can be seen to result from an overly rationalistic view of policy-making (Howlett, Ramesh,

and Perl 2009). For example, with respect to the first concern about the ad-verse effects of constitutional and institutional orders on policy-making, this can almost always be taken as a meta-contextual "given" within which any form of analysis, evidence-based or otherwise, must take place. Concerns in this area then apply to all kinds of policy analysis and are not a function of any increased emphasis on knowledge utilization. With respect to the second concern – that the evidence-based movement represents a return to early ideas about technocratic, expert-driven policy-making and that such forms of policy analysis are not necessarily superior to political judgments based on experience – it should be noted that unlike many earlier efforts at im-proving policy through analysis that did rely on an underlying apolitical, technocratic view of optimal policy-making, evidence-based policy-making represents a compromise between political and technocratic views of policy-making. That is, it relies on the notion of policy-making not as a purely ra-tional affair but as an exercise in pragmatic judgment, whereby political, ideological or other forms of "non-evidence-based" policy-making are tem-pered by an effort on the part of policy specialists to "speak truth to power" – to present evidence to policy-makers that supports or refutes specific pol-icy measures as appropriate to resolve identified policy problems (Sanderson 2002b; Wildavsky 1979), but does not attempt to replace their judgment with their own (Head 2008; Tenbensel 2004). The same is true with respect to the third concern – that systematic reviews do not exist in many sectors and issue areas. This should be seen more as a criticism of the lack of effort expended to date in collecting more and better data in many policy sectors than as a critique of the idea of the enhanced utilization of system-atically complied and assessed evidence in public policy formulation and decision-making (Qureshi 2004; Shaxson 2004; Warburton and Warburton 2004; Young et al. 2002).

The fourth concern – that many policy actors may not have the ability or resources required to carry out evidence-based policy-making – is much more serious. An increased emphasis on the use of evidence in policy-mak-ing requires that policy actors, and especially governmental ones, have the analytical capability required to collect appropriate data and utilize it effec-tively in the course of policy-making activities. As such, it highlights the fact that a significant factor affecting the ability of policy-makers to engage at all in evidence-based policy-making pertains to the level of both governmental and non-governmental actors' "*policy analytical capacity.*"

Overall, Norman Riddell summarized the requisites of policy analytical capacity as lying in "a recognized requirement or demand for research; a supply of qualified researchers; ready availability of quality data; policies and procedures to facilitate productive interactions with other researchers; and a culture in which openness is encouraged and risk taking is acceptable" (2007: 7) If evidence-based policy-making is to be achieved, policy actors re-

quire the ability to collect and aggregate information in order to effectively develop medium- and long-term projections, proposals for, and evaluations of future government activities. Organizations both inside and outside of governments require a level of human, financial, network and knowledge resources enabling them to perform the tasks associated with managing and implementing an evidence-based policy process. Without this they might only marshal these resources in particular areas, resulting in a ''lumpy'' set of departmental or agency competences in which some agencies are able to plan and prioritize over the long-term while others focus on shorter-term issues or, if evenly distributed, may only be able to react to short- or medium-term political, economic or other challenges and imperatives occurring in their policy environments (Voyer 2007).

> *The political nature of judgments about policy success and failure also implies that such assessments will rarely be unanimous*

The evidence-based policy movement, thus, must confront the fact that many recent studies suggest that the level of policy analytical capacity found in many government and non-governmental organizations is low, a fact that may contribute significantly to the failure of efforts to enhance evidence-based policy-making and its ancilliary goal of improving policy-making processes and policy-making outcomes. The theory, concepts and evidence lying behind the idea of policy analytical capacity and its relationship to evidence-based policy-making are set out below.

Evidence-based policy-making as an effort to avoid policy failures and enhance the potential for policy success through policy learning

Evidence-based policy-making represents an attempt to enhance the possibility of policy success by improving the amount and type of information processed in public policy decision-making as well as the methods used in its assessment (Morgan and Henrion 1990; Nilsson et al. 2008). Based on the idea that better decisions are those that incorporate the most available information, it is expected that enhancing the information basis of policy decisions will improve the results flowing from their implementation, while iterative monitoring and evaluation of results in the field will allow errors to be caught and corrected. Through improved information processing and utilization, it is expected that policy learning will be enhanced and result, at minimum, in the avoidance of policy failures or a reduction in the chances of their occurrence, with, accordingly, an increase in the

potential for additional or greater success in attaining policy goals and anticipated or expected policy outcomes (Bennett and Howlett 1992; March 1981, 1994).

Evaluating these claims is difficult, of course, not least due to the fact that policies can succeed or fail in numerous ways, with significant variations at different levels of severity and aggregation. Sometimes an entire policy regime can fail, for example, while more often specific programs within a policy field may be designated as successful or unsuccessful. The most egregious cases are when an entire policy regime substantively fails, a failure that is typically very public and obvious to voters and the public at large. In such cases, policy-makers may acknowledge that mistakes were made and attempt to gather information in order to clarify the reasons why the failure occurred and suggest alternative routes that would avoid repeating the same or similar errors in future. This can involve the use of commissions and other types of inquiries linked to an evidence-based perspective (Aucoin 1990; Bulmer 1981) but can also often result in a strictly partisan critique based more on ideological and electoral considerations than on gathering and processing information (Hird 2005; Schmidt 1996). More often, however, it is specific programs within a policy field that are designated as unsuccessful. Such failures are often much less visible to non-experts and do not entail the threat of a general legitimation crisis requiring public intervention in the form of a commission or inquiry (Schudson 2006). Efforts to deal with such failures typically would include specialized legitimation-building exercises within the relevant policy community, such as specialized consultations with experts as part of efforts designed to correct such failures (Peters and Barker 1993). These latter failures are typically more amenable to the knowledge generation and utilization activities associated with evidence-based policy-making than are the more generalized and highly publicized regime failures.

> *Policy-makers and managers interested in avoiding these common sources of policy failure and enhancing the potential for greater policy success can address some of these causes of failure by insisting that government intentions be clarified and made consistent with resource endowments and can, at the same time, insist that criteria for measuring policy goals and their rationales be clearly specified*

Similarly, policies and programs can also succeed or fail either in substantive terms – that is, as objectively or perceived to be delivering or failing to deliver expected material outcomes – or, in procedural terms, as being legit-

imate or illegitimate, fair or unfair, just or unjust in their formulation, implementation or results. Such judgments are often themselves highly unsystematic and partisan in nature. In fact, such judgments involve most of the key actors arrayed in policy subsystems in a variety of formal and informal venues for assessing and critiquing policy outcomes and processes. They almost always involve officials and politicians within government dealing with the policy in question but may also involve members of the public, who often will have the ultimate say on a government's policy record when they vote at elections, and members of relevant interest groups, political parties, think tanks, the media, and other policy actors (Bovens, t'Hart, and Peters 2001; Brandstrom and Kuipers 2003). The political nature of judgments about policy success and failure also implies that such assessments will rarely be unanimous. This is in part due to the fact that political evaluations depend on the imputation of notions of intentionality to government actors made by policy evaluators – so that the results of policy-making can be assessed against expectations. This is often a highly partisan, controversial and much less than neutral or objective task because 1) government intentions themselves can be, intentionally or otherwise, very vague and ambiguous, secret, or even potentially contradictory or mutually exclusive; 2) labels such as ''success'' and ''failure'' are inherently relative and will be interpreted differently by different policy actors; and 3) government policies take time to put into place and circumstances may change in such as way as to render moot initial government assessments of policy contexts and judgments of the severity of policy problems and the appropriateness of particular policy tools for their solution. Designations of policy success and failure are semantic tools themselves used in public debate and policy contestation in order to seek political advantage (Hood 2002; Sulitzeanu-Kenan and Hood 2005; Weaver 1986). Policy evaluations affect considerations and consequences related to assessing blame and taking credit for government activities at all stages of the policy process, all of which can have electoral, administrative and other consequences for policy actors and affect the susceptibility of the evaluations to evidence-based criteria. Thus the sites of judgments of policy success and failure are broader than often suggested, and the resulting cacophony of judgments and evaluations can make the analysis of success and failure quite difficult.

Despite these ontological and epistemological issues, however, as proponents of enhanced evidence-based or evidence-informed policy-making have observed, it is possible to make some headway in assessing policy success and failure by examining the role evidence and knowledge play in the specific types of policy failures identified in the different stages of the policy-making process by the more systematic academic literature on the subject.

Types of policy failures and the role played by evidence therein

Unlike popular commentators who more often than not tend to blame policy failures on the personality quirks and psychological limitations (such as stupidity, venality or corrupt behaviour on the part of politicians and administrators) of participants or on associated innate organizational failings (the ''bureaucratic mentality''), the academic literature on policy failures has found that clearly identifiable policy failures have tended to occur only in very specific circumstances and have little to do with the psychological propensities of policy participants. They include the following situations where

1. an overreaching government has attempted to address ''unaddressable'' or ''wicked'' problems, where neither the cause of a problem nor the solution to it is well known (Churchman 1967; Pressman and Wildavsky 1973);
2. governments have failed to properly anticipate the consequences of their proposed courses of action or the general susceptibility of their policy or administrative systems to catastrophic and other kinds of collapse (Bovens and t'Hart 1996, 1995; Perrow 1984; Roots 2004);
3. a variety of ''implementation failures'' have occurred in which the aims of decision-makers have failed to be properly or accurately translated into practice (Ingram and Mann 1980; Kerr 1976), often where there has been a lack of effective oversight over implementers on the part of decision-makers (Ellig and Lavoie 1995; McCubbins and Lupia 1994; McCubbins and Schwartz 1984); and
4. governments and policy-makers have failed to effectively evaluate policy processes and outcomes and/or have failed to learn the appropriate lessons from their own and other government's previous experiences (May 1992; Scharpf 1986).

Each of these sources of failure originates in a different stage of the policy cycle (see Table 1 below).

Each source of failure is also amenable, at least in theory, to improvement through better information management in policy-making, as proposed by proponents of evidence-based policy-making. Solutions for overreaching governments, for example, lie in better information being provided to policy-makers on their capabilities; better research and information on problem causes and policy effects can turn some apparently wicked problems into more manageable ones; better risk analysis can hedge against future consequences; better information systems can be implemented to aid implementation and enhance oversight; and more attention paid to policy-monitoring and feedback processes can help ensure better evaluation of pro-

Table 1. *Stages of the Policy Process and Associated Policy Failures*

Agenda-setting	Overreaching governments establishing or agreeing to establish overburdened or unattainable policy agendas
Policy formulation	Attempting to deal with wicked problems without appropriately investigating or researching problem causes or the probable effects of policy alternatives
Decision-making	Failing to anticipate adverse and other policy consequences or risk of system failures
Policy implementation	Failing to deal with implementation problems including lack of funding, legitimacy issues, principle-agent problems, oversight failures and others
Policy evaluation	Lack of learning due to lack of, ineffective or inappropriate policy monitoring and/or feedback processes and structures

gram and policy results and more effective policy-learning (see Table 2). Policy-makers and managers interested in avoiding these common sources of policy failure and enhancing the potential for greater policy success can address some of these causes of failure by insisting that government intentions be clarified and made consistent with resource endowments and can, at the same time, insist that criteria for measuring policy goals and their rationales be clearly specified. And they can continually monitor changing circumstances and alter some aspects of policies as these circumstances unfold (Anderson 1996; Hawke 1993; Uhr and Mackay 1996; Waller 1992).

Inspection of Table 2 shows that a significant factor affecting policy failures and their management through enhanced evidence-based policy-making is closely related to governmental and non-governmental "policy analytical capacity." That is, each of the managerial strategies set out in Table 2 involves improvement of some aspect of information management for policy analysis. Enhancing policy analytical capacity is, in fact, an essential precondition for the adoption of evidence-based policy-making and the improvement of policy outcomes through its application, an essential precondition that is often ignored or downplayed in the literature.

Defining policy analytical capacity

Policy capacity can be defined as

a loose concept which covers the whole gamut of issues associated with the government's arrangements to review, formulate and implement policies within its jurisdiction. It obviously

Table 2. *Policy Failures and Management Strategies by Stage of the Policy Cycle*

Stage of policy cycle	Problem	Solution
Agenda-setting	Overreaching governments	Better clarification and precise articulation of government goals and resource capabilities
Policy formulation	Attempting to deal with wicked problems	Provision of better data and research on policy problem causation and alternative solutions
Decision-making	Failing to anticipate policy consequences or risk of system structure failure	Better risk analysis and assessment and its integration into decision-making processes
Policy implementation	Principle-agent problems, oversight failures, etc.	More careful matching of administrative resources to policy goals and better design of monitoring and inspection systems
Policy evaluation	Lack of learning	Development of improved benchmarking and performance measurement systems and integration of this information into future policy deliberations

includes the nature and quality of the resources available for these purposes – whether in the public service or beyond – and the practices and procedures by which these resources are mobilized and used(Fellegi 1996: 6).

While *policy capacity* can be thought of as extending beyond analysis to include the actual administrative capacity of a government to undertake the day-to-day activities involved in policy implementation (Painter and Pierre 2005; Peters 1996), *policy analytical capacity* is a more focused concept related to knowledge acquisition and utilization in policy processes (Adams 2004; Leeuw 1991; Lynn 1978; MacRae 1991; Radaelli 1995). It refers to the amount of basic research a government can conduct or access, its ability to apply statistical methods, applied research methods, and advanced modelling 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 (O'Connor, Roos, and Vickers-Willis 2007; Preskill and Boyle 2008). It also involves the ability to communicate policy-related messages to interested parties and stakeholders and includes "a department's capacity to articulate its medium- and long-

term priorities'' (Fellegi 1996: 19) and to integrate information into the deci-
sion-making stage of the policy process.[1] These fundamental elements or
components of policy analytical capacity are set out in Table 3 below.

> *Little is known about the supply and demand for policy*
> *analysis in Canada, although recent critiques of the ped-*
> *agogy of public administration and public policy*
> *programs suggest there is good reason to suspect that a*
> *significant gap between pedagogy and practice may exist*
> *in this country*

The policy functions outlined above require either a highly trained, and
hence expensive, workforce that has far-seeing and future-oriented manage-
ment and excellent information collection and data processing capacities, as
well as the opportunity for employees to strengthen their skills and expertise
(O'Connor, Roos, and Vickers-Willis 2007) or the ability to outsource policy
research to similarly qualified personnel in private or semi-public organiza-
tions such as universities, think tanks, research institutes and consultancies
(Boston 1994). It also requires sufficient vertical and horizontal coordination
between participating organizations to ensure that research being under-
taken is relevant and timely. ''Boundary-spanning'' links between gov-
ernmental and non-governmental organizations are also critical (Weible
2008). As George Anderson has noted, ''a healthy policy-research commu-
nity outside government can play a vital role in enriching public under-
standing and debate of policy issues, and it serves as a natural complement
to policy capacity within government'' (1996: 486).

Assessing policy analytical capacity in practice

Whether or not, and to what degree, government and non-governmental
policy actors in a policy analytical community have the capacity to actually
fulfil these tasks remains an important and largely unanswered empirical
question in the study of evidence-based policy-making (Turnpenny et al.
2008; Wollmann 1989).

Studies of the actual behaviour and job performance of policy analysts, for
example, have constantly challenged the view often put forward in academic
texts that policy analysis is all about the neutral, competent and objective
performance of tasks associated with the application and use of a small suite
of technical policy analytical tools on the part of governmental or non-gov-
ernmentally based analysts (Boardman et al. 2001; Boston 1994; Durning and
Osama 1994; Patton and Sawicki 1993). This raises to the fore the question,
''What do policy analysts actually do in contemporary governmental and

Table 3. *Aspects of Political Analytical Capacity*

Components
Environmental scanning, trends analysis and forecasting methods
Theoretical research
Statistics, applied research and modelling
Evaluation of the means of meeting targets/goals
Consultation and managing relations
Program design, implementation monitoring and evaluation
Department's capacity to articulate its medium- and long-term priorities
Policy analytical resources – quantity and quality of employees; budgets; access to external sources of expertise

Source: Riddell 2007

non-governmental organizations? And, related to this, "Are their training and resources appropriate to allow them to meet the requisites of evidence-based policy-making?" (New Zealand, State Services Commission 1999; Weller and Stevens 1998).

At present, only very weak and partial, usually anecdotal, information exists on the situations found in different countries. Over thirty-years ago, Arnold Meltsner (1976) had 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. 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 U.K. 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 techniques such as cost-benefit analysis or risk assessment. As Page and Jenkins concluded,

The broad features of our characterization of UK policy bureaucracy are that policy officials at relatively junior levels are given substantial responsibility for developing and maintaining policy and servicing other, formally superior officials or bodies, often by offering technical advice and guidance. These people are not technical specialists in the sense that they develop high levels of technical expertise in one subject or stay in the same job for a long time. They are often left with apparently substantial discretion to develop policy because they often receive vague instructions about how to do their jobs, are not closely supervised, and work in an environment that is in most cases not overtly hierarchical (2005: 168).

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.

Policy analytical capacity in Canada

How does Canada shape up with regard to this important indicator (and predictor) of the successful application of enhanced evidence-based policy-making and, ultimately, improved policy success through the avoidance of policy failures? Little is known about the supply and demand for policy analysis in Canada, although recent critiques of the pedagogy of public administration and public policy programs suggest there is good reason to suspect that a significant gap between pedagogy and practice may exist in this country (Gow and Sutherland 2004).

Current evidence suggests that, with the possible exception of some major Canadian business associations and corporations (Stritch 2007), capacity in the non-governmental sector is very limited. This is true of a majority of actors involved in the Canadian labour movement (Jackson and Baldwin 2007), the voluntary sector (Laforest and Orsini 2005; Phillips 2007), as well as the media (Murray 2007), think tanks (Abelson 2002, 2007), and political parties (Cross 2007), most of which have very few if any permanent employees employed to conduct policy analysis of any kind. In many cases, analysis is carried out by consultants rather than paid staff, contributing to the transitory nature of much program design and policy analysis in Canada. However, even less is known about the training and activities of this ''invisible public service'' (Bakvis 2000; Perl and White 2002; Saint-Martin 1998; Speers 2007).

This portrayal of a generally impoverished and low-capacity policy analytical community pushes the emphasis for the prospects of enhanced evidence-based policy-making back onto Canadian governments, which, in theory at least, have access to the kinds of personnel, treasure and organizational resources that would allow them to construct substantial policy analytical capacity. What little is known about the actual work of policy analysts in contemporary Canadian governments, however, reveals a picture of a very ''lumpy'' or uneven distribution of policy analytical capacity, varying by level of government and by department or agency involved.

Early works in the late 1970s and early 1980s on the emerging policy analysis professions provided little empirical evidence of what analysts actually did in practice (Prince 1979; Prince and Chenier 1980) but rather often simply assumed they would contribute to the increased rationality of policy-making through the application of systematic analytical techniques such as cost-benefit analysis to the evaluation of policies and policy alternatives. Studies undertaken by federal government analysts, however, raised doubts about

this picture (French 1980; Hartle 1978). Later studies, in the 1990s, also noted the growth and subsequent decline of employment of policy analysts in government and their limited capacity for developing long-term strategic advice to governments (Bennett and McPhail 1992; Hollander and Prince 1993). Work since the early 1990s has suggested that tasks of policy analysts may be shifting, as in the U.K. and the other countries cited above, towards an increased emphasis on policy process design and network management activities and away from "formal" types of policy analysis (Howlett and Lindquist 2004; Lindquist 1992).

> *Governments and, increasingly, non-governmental actors in Canada and elsewhere are being asked to design effective long-term policy measures to deal with such problems without necessarily having the kinds of resources they require to successfully avoid common policy failures through the use of enhanced evidence-based analytical techniques*

This general pattern, however, varies greatly by level of government and, within each level, by the agency or department involved (Dobuzinskis, Howlett, and Laycock 2007). The current policy analytical capacity of the Canadian *federal* government, for example, although highly varied in terms of its distribution among departments and between departments and central agencies (Bakvis 1997, 2000; Voyer 2007), is reasonably high by historical and comparative standards (Prince 2007). Resources were cut during the budgetary crises of the 1980s and 1990s, setting back analytical capacity to levels not seen since the 1970s (Bakvis 2000; Hollander and Prince 1993). However, the federal government and several provinces eliminated their deficits in the late 1990s and began to revitalize their civil services in their new-found surplus positions. Federal government policy capacity needed re-energizing after the cuts of the 1980s and 1990s, particularly in key departments tasked to assist in identifying new priorities and strategies (Lindquist and Desveaux 1998), and efforts specifically directed at enhancing policy capacity were undertaken, beginning with Ivan Fellegi's 1996 Task Force on Strengthening Our Policy Capacity (Bourgon 1996). In the late 1990s, the Policy Research Initiative (PRI) promoted collaboration with an ever-expanding array of university institutes and think tanks (Bakvis 2000; Voyer 2007) as a way to re-build federal policy analytical capacity in the new era of participatory governance. This is significant since the number and range of players in policy areas such as climate change – governments, interest groups, think tanks, aboriginal communities, NGOs, international organizations and others – has expanded, along with the range of issues with which analysts must

now be concerned (Lindquist 1992). Federal policy development processes now typically contain mandated criteria for consultations and political leaders and administrators typically access polling data and conduct focus groups as part of the standard process of policy development. This has created a far more complicated policy-making environment for governments, since different strategies for building arguments and cases for policy initiatives and far more consultation are required than in past eras (Howlett and Lindquist 2004). Ultimately, highly centralized and well-resourced decision-making systems eventually took shape in the hands of the prime minister and the minister of finance (Bernier, Brownsey, and Howlett 2005; Savoie 1999), with a focus on policy performance management (Saint-Martin 1998). This results orientation has led the federal government to increasingly promote horizontal and holistic analyses of policy problems, such as climate change adaptation, and to try to better align initiatives across governments and sectors, including recruitment and retention of policy analysts, in order to ''even out'' the uneven distribution of capacities across departments and units (Aucoin and Bakvis 2005).

Whether or not the policy analytical capacity of the federal government has grown sufficiently to deal with this increased scope, range and complexity is uncertain, but there is little doubt that analytical capacity has improved since its nadir in the late 1980s (Wellstead, Stedman, and Lindquist 2007). However, evidence at the *provincial*, *territorial* and *local* levels – although much less extensive than at the federal level – suggests that policy analytical capacity at these levels is much weaker (McArthur 2007; Rasmussen 1999; Stewart and Smith 2007) and leads to a short-term focus in many policies and programs adopted at these levels of government. However, efforts – such as the Policy Excellence Initiative in Nova Scotia, the Knowledge and Information Services initiative in British Columbia, the Policy Innovation and Leadership project in Ontario, as well as cabinet-level initiatives in Yukon, Manitoba, Newfoundland and Labrador, and Alberta – are underway in many jurisdictions to systematically grapple with this issue (Ontario, Executive Research Group 1999; Hicks and Watson 2007; Manitoba, Office of the Auditor General 2001; Nova Scotia, Policy Excellent Initiative 2007).

Conclusion

In their 2006 study of the policy analytical activities undertaken in the U.S., the U.K. and several other European countries, H.K. Colebatch and Beryl Radin concluded that there are currently three areas of priority for contemporary research work on policy analysis:

1. ''We need more empirical research on the nature of policy work in specific contexts: how policy workers (and which sort) get a place at the table,

how the question is framed, what discourse is accepted as valid, and how this work relates to the outcome at any point in time";
2. "What sort of activity do practitioners see as policy work, and what sort of policy workers do they recognize"; and
3. "There are questions for teaching and professional preparation" that will derive from these first two studies (Colebatch and Radin 2006: 225).

These are all important observations, both for the evaluation of the capacity of policy analytical communities to undertake high-level, long-term policy analysis and for the possibility of enhancing evidence-based policy-making processes and procedures in government. The set of jobs and duties actually performed by policy analysts in both government and non-governmental organizations is very closely tied to the resources they have at their disposal in terms of personnel and funding, the demand they face from clients and managers for high-quality results, and the availability of high-quality data and information on future trends.

In Canada, recent work provides some evidence of the activities of analysts in a wider range of situations, both inside and outside of government, than has usually been considered or investigated in the past. The basic "sociology" of policy analysis in Canada – who policy analysts are and what policy analysts actually do (and its pedagogy – how they are trained and how their training fits their job) – suggests the existence of a generally government-dominated policy analytical community but also a very mixed pattern of policy analytical capacity by jurisdiction and administrative unit, with some central and departmental-level units in the federal government displaying the highest capacity and some provincial and local government agencies the lowest (Dobuzinskis, Howlett, and Laycock 2007).

The weak policy capacity found among most of the major actors involved in policy analysis, even in rich countries like Canada, is very problematic in the context of dealing with the challenges of improving policy-making through the adoption of evidence-based techniques for dealing with complex contemporary policy challenges. The short-term focus it often promotes, for example, is very ill-suited for the development of the ongoing and long-term solutions required to deal with large multifaceted contemporary problems like climate change mitigation and adaptation (Adamowicz 2007).

Ultimately, both governments and, increasingly, non-governmental actors in Canada and elsewhere are being asked to design effective long-term policy measures to deal with such problems without necessarily having the kinds of resources they require to successfully avoid common policy failures through the use of enhanced evidence-based analytical techniques. Without prior or at least concurrent efforts to enhance policy analytical capacity,

unfortunately, ''failure may be the only option'' available to governments in their efforts to deal with critical contemporary policy challenges.

Note

1 The willingness of policy-makers to use the information generated in the way it was intended to be used is not always present. On the ''strategic'' and ''argumentative'' versus ''evaluative'' uses of research and analysis, see D. Whiteman (1985) and R. Landry, M. Lamari, and N. Amara (2003).

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