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# Measuring Individual-Level Analytical, Managerial and Political Policy Capacity: A Survey Instrument

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## **Abstract**

There is no denying that policy actors matter in driving policy change. Most of the policy process frameworks argued for the centrality of policy actors but have similarly contended that the occurrence of policy change is contingent upon the dynamic interaction of policy actors, organizations and institutions. But the roles played by the actors in the policy process has been typically framed in terms of the technician-politician dichotomy. The burgeoning literature on the increasing complexity of policy work, however, shows a spectrum of roles instead of a binary distinction. Policy work is comprised of functions within and outside the government that transcend the political-analytical distinction. Despite this recognition, very limited attention has been given towards systematically and comprehensively measuring the set of skills and resources necessary for policy actors to perform this various functions. This paper discusses the development of instrument to address this gap in public policy literature. It builds on the framework of policy capacity developed by Wu, Ramesh and Howlett (2015) by integrating three separately assessed dimensions of policy capacity (analytical, managerial and political) into one measurement instrument. In doing so, we hope to measure not only the levels of individual policy capacity but also the dynamic interactions of the policy actors with resources at the levels of the organization and policy system.

**Keywords:** policy capacity; policy actors; measurement

## **1. Introduction**

For several decades now, scholars have examined how individuals can determine the extent to which policy change and consequently, policy success can happen. Many have argued public managers can influence policy outcomes as much as policy design (Hicklin and Godwin 2009, Meier and O'Toole 2002, Howlett 2011, Howlett and Walker 2012). Others examined how political brokers and entrepreneurs take advantage of 'windows of opportunities' in setting the agenda of successfully implemented policies (Kingdon 1984, Mintrom 1997, Pal and Clark 2015). More recently, attention have been given to a policy actor's ability to generate and use policy-relevant knowledge (Howlett 2009b, Wellstead, Stedman, and Howlett 2011). These streams of research represent the complexity and the multiplicity of policy work, but there has been little empirical work done that simultaneously analyzes the different dimensions of policy work. Most of the existing literature identify capacity deficits as the gap between what policy professionals actually do and the rational model of policy analysis. However, since actual policy work are far from the rational model, the assessment of capacity deficits based on the gap becomes misleading. The absence of a comprehensive view of a policy actor's set of capacities constrain the proper identification of interventions to better match actors with jobs and to address capacity gaps of incumbents.

The purpose of this research is to develop a measurement instrument for actor policy capacity. Instead of appraising the gap of what policy workers do with the rational model, the instrument builds on the definition of policy capacity as "the set of skills and resources...necessary to perform policy functions" (Wu, Ramesh, and Howlett 2015). As actors operate within the restrictions and enablement of organizations and policy systems, individual policy capacity is not only a function of the availability of organizational and systemic skills and resources but also how the individual interfaces with these levels. The paper is structured as follows. The next section discusses the rationale for adopting an expansive perspective of actor policy capacity based on the increasing acknowledgement of the multi-faceted nature of policy work, which not only involves producing economically rational analysis but also managing financial, personnel and

informational resources as well as political bargaining and networking. Section 3 examines existing efforts to measure policy capacity. From this review of literature, a resource-based definition of actor policy capacity is derived: policy capacity is an individual actor's skills and resources necessary in performing policy-related functions and tasks. In Section 4, this definition is operationalized using different constructs related to the three dimensions of policy capacity (analytical, managerial and political). Some preliminary concluding remarks are made at the end.

## **2. Reexamining Policy Capacity: Roles Theory and the Changing Dynamics of Policy Work**

Many theoretical frameworks about the policy process and policy change have persuasively argued that policy actors matter. In his multi-streams approach, Kingdon (1984) identified policy entrepreneurs as crucial in the 'coupling' of policy and problem streams as they find ways to sell their policy proposals whenever opportunities arise. Sabatier's (1988) advocacy coalition framework argues that repeated interactions between different set of actors following a different set of core policy beliefs is a necessary condition of policy change. The advocacy coalitions are typically mediated by policy brokers who attempts to reach a compromise between coalitions. Although these models heavily rely on exogenous events for policy changes to occur as lamented by Capano (2009), policy change still occurs as a result of the dynamic interaction of actors with organizations and institutions.

While there is recognition if a policy actor's role in the policy process, there is a limited understanding of what sort of capacity an actor needs to have in order to an effective instrument for policy change. In previous studies that examine the nature of policy work, the focus has been given to examining the role of policy analysts in the bureaucracy. The seminal work of Meltsner (1976) on American policy analysts asserted the 'technician' role of policy analysts, who "weaves around himself a protective cocoon of computers, models, and statistical regressions" (Meltsner 1976, 18). He differentiated the technician as an academic researcher from the politician and highlighted the politics-analysis dichotomy that emanated from the Weberian

concept of a professional bureaucracy (Peters and Pierre 2001). Many works since then have attempted to move beyond these binary roles of policy analysts. Jenkins-Smith (1982) identified two other roles of a policy analyst apart from the 'objective technician' which include an issue advocate who pushes for policies based on his/her own values and goals, and the client's advocate who generates evidence to justify policy decisions ex-post. Snare (1995) relabeled the technician-politician roles into expert and advocate, distinguished by their motivations for doing policy analysis. He also added troubleshooter who serves as a broker and decision-maker who evaluates the options rather than generate them. These typologies, however, have been criticized for its inability to recognize the increasing trend of policy analysis being located outside of the government (Radin 2013). This criticism echoes Fellegi's (1996) suggestion of expanding the definition of policy to include not only the government but also the non-government sector and the society as a whole.

The current literature using roles theory of policy analysis suggests that the main point of distinction between policy analysts, street-level bureaucrats and politicians is their motivations, goals and values (Moore 1983). As Meltsner recognized earlier, policy work is a confluence of individual factors such as professional education and training, motivations and personal goals. But a policy professional's roles do not exist in a vacuum and is in fact, affected largely by contextual factors. This issue is particularly stark in the literature that attempts to model the dynamic relationships between the civil servants and 'political bureaucrats' (Peters and Pierre 2001, Putnam 1973, Niskanen 1975, Alesina and Tabellini 2007). For instance, in light of increasing tension between politicians and bureaucrats in Britain, Wilson and Barker (2003) observe a reduction in the demand for bureaucrats to act as a trusted advisor of politicians, or in other words, as a 'guide, philosopher, and friend'. Through their interviews, the authors also find perception among civil servants of their roles to go beyond policy advisory to include people management, implementation of political decisions and negotiations with other departments (Wilson and Barker 2003). Bureaucrats also perceive themselves not only as a policy-maker but also as a 'trustee of the state' indicating

the blurring lines of distinction between politicians and bureaucrats, which is influenced largely by the political system of a country (Aberbach, Mezger, and Rockman 1991).

While there has been efforts to measure policy capacity of individuals as the ability to provide policy advice, the significance played by contextual factors in determining policy capacity favors a more expansive definition of policy capacity. Specifically, the variations in their perceived roles bring to surface the false dichotomization of the role of policy analysts as either technicians or politicians earlier argued by Meltsner (1976). In fact, Mayer, van Daalen, and Bots (2004) identified six clusters of policy work that includes not only research, designing and recommending policies but also clarifying arguments and values, providing strategic advice, democratizing the policy process and mediating various competing contextual factors. This points to the different hats a policy actor has to wear throughout the different stages of the policy process. The burgeoning literature on policy analytical capacity have also started to push the discourse towards better characterization of the tasks of and skills used by analysts in the performance of their jobs. Looking at policy analysts at the federal level in Canada, Howlett and Newman (2010) found policy analysts' tasks to go beyond generating evidence for policy decisions and involves networking, ministerial briefing, and preparing budget submissions as well as acting as a coordinator and a planner. These findings are an elucidation on the policy analyst's multi-dimensional nature of work but the limited empirical evidence so far has concentrated on what policy analysts actually do rather than what they can do. Many factors – both individual and organizational – simultaneously constrain and enable the extent to which policy analysts can perform their jobs. Thus, what their actual responsibilities may not fully reflect the spectrum of skills they can do in relation to policy work. If the role of policy analysts and policy actors in general keeps on changing, their survival as a professional within the policy process is contingent upon their skills and resources that allow them to adapt to the changing environment. The discourse has to be reframed by examining and measuring the capacity of all actors to actively engage and influence in a highly fluid policy process. While Meltsner (1976) already made a distinction between a technician and politician based on their levels of analytical and political capacity, the managerial aspects of policy work has largely been

ignored (Meier 2009, Howlett 2011, Howlett and Walker 2012). For example, a policy analyst needs a working knowledge of economics and financial accounting to perform a cost-benefit analysis of an installation of a village water system. But given that project evaluations are carried out as teams, the project team leader will have to use his ability to mobilize the work unit, resolve personnel conflicts and monitor performance in order to deliver on time. Frequently, information required to make an economic analysis would have to be obtained from various sources from the government. Field visits must be coordinated with local officials and results would have to be reported and packaged according to audience. The capacity of individual policy actors to carry out this complex work has not been properly measured or at best has only been examined independently of each other.

### **3. Conceptualizing Actor Policy Capacity**

The primary challenge in any effort to measure capacity is overcoming the problem of scoping and defining an often contentious concept. Traditionally, policy capacity has been defined at the level of institutions and organization, particularly the government, as the ability to make intelligent decisions (Pierre and Painter 2005) and implement these decisions (Davis 2000). This conceptualization of policy capacity emanates from the discourse on state capacity (Fukuyama 2013), which bounds policy capacity as making an ‘authoritative choice’ (Colebatch 2006b). In an attempt to move away from this limited conceptualization of policy capacity and the need to recognize the interactions between the government and non-state actors in determining and implementing policies, Parsons defined policy capacity as the ability to map and navigate “through the complexities of inter-connected problems, multi-level governance, multiple fault lines and multi-organizational settings, cross-cutting issues, policy networks, organizational inter-dependencies and linkages” (Parsons 2004, 44). Arguably, Parsons’ definition is a more nuanced notion of policy capacity, incorporating the different managerial and political components of policy capacity but also falls short of offering a comprehensive conceptualization of policy capacity that can be applied to policy actors who play multiple roles and responsibilities.

*Table 1 Policy Capacity: Skills and Resources*

<b>Levels of Resources and Capabilities</b>	<b>Skills and Competences</b>		
	Analytical	Managerial	Political
Individual	Individual Analytical Capacity	Individual Managerial Capacity	Individual Political Capacity
Organizational	Organizational Analytical Capacity	Organizational Managerial Capacity	Organizational Political Capacity
Systemic	Systemic Analytical Capacity	Systemic Managerial Capacity	Systemic Political Capacity

Source: Wu, Ramesh, Howlett (2015)

More recently, Wu, Ramesh, and Howlett (2015) offers a more integrative definition of policy capacity. Policy capacity is defined as the skills and resources necessary in performing policy functions. As shown in Table 1, this definition acknowledges the three dimensions of policy capacity that has emerged in current literature: analytical (assessing and making informed choices), managerial (implementing the decisions) and political (interacting with other policy actors). This general framework also treats policy capacity as a nested model of capacities involving not only a multi-level categorization of resources and capabilities – individual, organizational and systemic – but also a dynamic interaction of each level to another. This definition of Wu et al. (2015) is adopted particularly since it is general enough to be applicable to policy actors within and outside the government.



*Table 2 Individual Policy Functions throughout the Policy Process*

Stages	Analytical	Managerial	Political
Agenda setting	<ul style="list-style-type: none"> <li>• Define the problem</li> <li>• Collect supporting information from primary or secondary sources</li> </ul>	<ul style="list-style-type: none"> <li>• Prioritize policy issues</li> </ul>	<ul style="list-style-type: none"> <li>• Negotiate translation of political agenda into policy priorities</li> <li>• Generate interest in resolving the policy problem</li> </ul>
Formulation of alternatives and policy decision	<ul style="list-style-type: none"> <li>• Project possible outcomes/scenarios</li> <li>• Propose solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Select solutions based on a set of criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Link the problem to the solution</li> <li>• Engage stakeholders for policy inputs</li> <li>• Create a mandate for policy decision</li> </ul>
Policy Implementation	<ul style="list-style-type: none"> <li>• Develop a scheme to monitor implementation</li> <li>• Prepare reports about patterns and trends from monitoring data</li> </ul>	<ul style="list-style-type: none"> <li>• Plan and organize</li> <li>• Mobilize financial, personnel and other resources</li> <li>• Track resource utilization vis-à-vis targets</li> <li>• Maintain communication</li> </ul>	<ul style="list-style-type: none"> <li>• Troubleshoot potential fall-outs</li> <li>• Maintain communication with the external environment</li> <li>• Coordinate collaboration with other organizations</li> </ul>

Stages	Analytical	Managerial	Political
Policy Evaluation		within the policy work unit	
		<ul style="list-style-type: none"> <li>• Resolve operational bottlenecks</li> <li>• Coordinate internal collaboration with other units</li> <li>• Adjust to contingencies</li> </ul>	
	<ul style="list-style-type: none"> <li>• Assess impact attributable to the policy through quantitative and qualitative analyses</li> <li>• Generate policy implications based on impact</li> <li>• Document accomplishments, lessons learned and policy implications</li> </ul>	<ul style="list-style-type: none"> <li>• Review accomplishment of goals</li> <li>• Debrief and identify lessons learned</li> <li>• Report accomplishments and impact</li> </ul>	<ul style="list-style-type: none"> <li>• Engage stakeholders to generate feedback about the policy</li> </ul>

If this definition is adopted, enumerating the functions of a policy professional becomes a crucial analytical step. Table 2 is an illustration of what a ‘typical’ policy actor is expected to perform throughout the policy

cycle. It does not intend to be an exhaustive list but it is presented to demonstrate that policy capacity involves not only ‘making intelligent choices’ or implementing such choices but also encompasses steering and weaving together the policy process as Parsons contended. We do not see one dimension to be exclusively performed by one dedicated staff nor do we anticipate all functions to be performed by one staff. Depending on the policy sub-system, each actor may only be involved in one aspect or phase of the policy process. Many permutations exist but the truth remains that performing a policy function or a combination of functions may entail differing levels of capacity. For example, it is a misperception that analytical capacity is only relevant to analysts working at lower echelons of government. In fact, they are even more relevant at the higher echelons because policy issues are even more complex when viewed from a broader perspective. Even when the policy analysis, design and evaluation is done at the lower levels, it is essential for senior managers to be intelligent consumers of analytical products. Without such capacity, policy-makers may either dismiss the value of analytical work altogether, or be misguided by them due to a lack of understanding of the limitations of such work.

We adhere to Colebatch’s assertions about the existence of a variety of ‘maps’ of policy work, which is comprised of “overlapping accounts, ambiguity, and the construction and maintenance of shared meaning” as a result of repeated interaction between policy actors (Colebatch 2006b, 318, 2006a). We advance this argument further by suggesting that how this interaction is governed and facilitated by policy actors depends immensely on an actor’s analytical, managerial and political skills.

### *Analytical capacity*

Analytical tasks pertain to the responsibilities of what Meltsner (1976) would refer to as the technician. The ability to perform these kinds of functions is contingent upon analytical capacity. The analytical skills of individuals involved in policy tasks such as diagnosing policy problems and their root causes, designing and comparing solutions to problems, formulating sensible plans for policy implementation, and conducting

rigorous policy evaluation – is a crucial determinant of policy effectiveness. In fact, what an organization does, indeed can do, and the likelihood its success depend critically on the analytical capacity of its employees in diagnosing problems and developing appropriate strategies for addressing them. Policy professionals' skills in conducting such tasks are keys to their agencies' analytical capacity. The increasing complexity of policy problems demands the use of analytical tools such as cost-benefit analysis and systems modeling that are often in short supply in governments.

Policy analytical capacity is defined as the ability to acquire and utilize policy-relevant knowledge (Howlett 2009b). It essentially pertains to basic skills of identifying and collecting appropriate data, applying statistical methods, communicating relevant policy-messages to specific audiences, and integrating evidence into policy learning (Howlett and Joshi-Koop 2011). In existing literature, the dominant way of measuring policy analytical capacity has been assessing formal education and training of a policy professional, work experience (Elgin and Weible 2013, Howlett 2009a, Howlett and Newman 2010, Wellstead, Stedman, and Howlett 2011). In a review of policy-related job posts, Radin (2013) noted employers' preference for specialized knowledge in a specific policy sector as reflected by a candidate's field of study. Age and tenure in a policy-related work is indicative of institutional memory, which is critical in fostering collective learning (Wellstead, Stedman, and Lindquist 2009). These studies also examine the types of work analysts perform on a regular basis, and techniques employed, which feeds back to their educational background. It is an indirect but objective way of determining whether one has the adequate skills to perform policy analysis.

In assessing analytical capacity, however, it becomes critical to examine the resources at the disposal of the policy actor. The availability of personnel and informational resources can either constrain or enable an effective conduct of policy functions. Existence of a policy shop signals an organizational commitment to policy analysis as it creates policy communities and an accessible knowledge pool (Bhatta 2002). Time as a resource seems to also feed into the capacity of policy professionals. In the analysis of federal and national

policy analysts, Wellstead, Stedman, and Howlett (2011) examined the temporal dimension of policy work, whether policy analysts engage in ‘fire-fighting’ or long-term analysis. Their analysis offers a glimpse at the requirement for policy analysts to be flexible and adaptable to a changing work environment. Whereas time can be considered as a valuable resource of policy analysis, the nature of work does not allow analysts to have this luxury, requiring analyst to be quick on their feet in generating or integrating evidence on a day-to-day basis. Instead of achieving an economically rational analysis, policy actors who face constraints in time and information, typically follow ‘rules of thumb’ and ‘good enough’ methods, which is captured best by the concept of bounded rationality in policy analysis (Dunn 2015, Jones 2003).

### *Managerial capacity*

As argued earlier, the variations in the kind of work of policy actors reflect the expectation for them to carry out managerial functions as well. Policy managers are tasked to ‘get it done’, which often requires leading a team and mobilizing resources usually typified as administrative tasks. But Howlett (2011) finds that policy managers also engage in analytical activities on top of planning and networking for which he concluded that “[p]olicy managers are not simply administrators... [and] the analysis ...suggests that the policy roles played by policy managers are significant and in most respects very similar to those played by nonmanagerial policy analysts” (Howlett 2011, 258). Managerial policy capacity can thus be defined based on Gleeson’s notion of ‘policy leadership’, which involves “the ability to build policy through local-level judgment, mentorship, initiative and responsibility and through mobilizing organizational resources” (Gleeson 2009, 367). But leadership is a difficult skill to specify and yet harder to measure. It is more practical and useful to break down the nebulous concept of leadership into key functions that policy managers perform: planning, staffing, budgeting, delegating, and directing, and coordination. The presence of ample officials with skills in managing human, financial, and infrastructure resources and coordinating their use within and outside organizations is critical for making and implementing good policies (Hicklin and Godwin 2009). High level of inter-personal skills is essential, though hard to measure, because the

complexity of contemporary policy challenges require close collaboration among a large number of policy professionals within and across organizations.

Although the study of bureaucrat-politician dynamics have been thriving, the extent to which public managers can interact effectively with other actors throughout policy process remains largely unattended (Meier 2009, Hicklin and Godwin 2009). The limited existing literature on measurements of ‘good management’ have tended to treat management either the residual of management or specific aspects of management. For instance, Meier and O’Toole (2002) measured ‘managerial quality’ of superintendents as a function of performance-based salary set by school boards, which accounts for 5 percent of the variation in school district performance. Subsequent research using the residual measure of managerial quality corroborated the assertion that managerial quality partly determines organizational performance (O’Toole and Meier 2003). Although application of this measure of managerial quality implies generalizability (Meier 2009), it is hardly operational where variables such as salary are not performance-based, which limits the replicability of the measurement to other areas. More importantly, quality indicators measures what has been done already instead of what the managers can actually do. Other scholars have used attitudinal measures to construct a model of managerial quality. For Vigoda-Gadot and Yuval (2003), managerial quality includes human quality, transparency and accountability, morality and ethics, and innovation and creativity. The authors established that managerial quality is precondition not only of organizational performance but also of political legitimacy and trust in the government.

Operational capacity is relevant not only to policy implementation, as commonly believed, but to all policy processes. The lack of operational capacity among experts and analysts may result in policy recommendations and eventually decisions that may be sound in theory or principle, but fall apart in practice because the issues with regard to resources allocation and coordination were not taken into consideration at the policy formulation stage. In addition, specific tasks at other stages in policy process, such as evaluation, may involve the mobilization and deployment of resources requiring operational capacity.

### *Political capacity*

Policy capacity at the systemic level involves the policy professionals' ability to take the political aspects of policy tasks into consideration and to enhance political support for the tasks they perform. First of all, knowledge about policy processes, especially about how different players interact with each other in different stages of the policy process, helps individual actors to appreciate the linkages between their work and the politics of the policy process. Engagement of stakeholders including engaging expert groups to provide definitive policy advice has been identified as a core function of policy professionals (Page 2010). This is corroborated by research done by Howlett and Walker (2012) where they find policy analysts to be engaged in stakeholder consultations and engagement or process management (coordinator-planner). Policy acumen, consisting of insights about positions, interests, resources and strategies of key players in the policy process, and the practical implications of policy actions (Wu et al. 2010, Rhodes 2014, Tiernan 2015), forms the basis for actors to make sound judgment on the desirability and feasibility of different policies. Third, skills in communication, negotiation and consensus building can be critical for individual actors working closely with stakeholders outside their organizations, such as other government agencies, political parties, NGOs, the media, and the general public because policy process involve the interactions of many different stakeholders with their own interests and imperatives (Zhang et al. 2012).

Drawing from management studies, political capacity here is defined as the ability to effectively understand stakeholders and others at work, and to use such knowledge to mobilize others towards achieving a desired policy outcome (Ferris et al. 2005). It allows policy actors to navigate through organizations and political systems to steer policies both in the context of 'normal' policy-making and implementation of policy changes or reforms (Pal and Clark 2015). This is particularly important because political skills have transformed to be a fundamental skill requirement for policy analysts since they have become the "first line conduit for policy bargaining" (Radin 2013, 207). Contrary to what is commonly believed, political capacity is not an essential trait only of senior policy-makers and officials, a perception deeply rooted in the

separation of public administration and politics, with the latter belonging exclusively to political executive. Without adequate political capacity, policy analysts and experts may make policy recommendations that overlook resistance of key players in the policy process, and public sector managers may underestimate the level of opposition to policies or programs implemented. Both can lead to disastrous consequences.

This aspect of policy capacity has long been recognized as a driver of policy innovation and change but has been largely applied to the concepts of policy entrepreneurs and policy brokers (Stone 1989, Mintrom and Vergari 1996, Mintrom 1997, Stone 2001, Weissert 1991). Although distinguishing between the two have been the subject of much research, they share an astute ability to take advantage of the political environment to push for their own agenda. To some extent, political capacity also feeds into technical capacity as it relates to one's ability to tap into the resources available within and outside the organization. Mintrom calls this ability as people skills: "[o]ther things being equal, policy analysts with excellent people skills are better able than their counterparts with less keenly developed interpersonal skills to make effective use of their technical skills" (Mintrom 2003, 8). Another aspect of political skills is management networking. (Meier and O'Toole 2001)

However, the measurement of political capacity has been largely done through external validation of the political skills. For example, efforts to identify policy entrepreneurs rely on the success of an individual in pushing for certain agenda as perceived by their peers or based on their associational linkages. In identifying legislative entrepreneurs, Weissert (1991) considered sponsors or co-sponsors of bills during the 'policy window' who were previously associated to the issue as policy entrepreneurs while those without prior association to the issue are identified as policy opportunists. In a survey about the role of individual in driving state-level higher education reforms, McLendon and Ness (2003) identified the following as qualities of effective policy entrepreneurship: an appreciation of timing and contingency, an ability to mobilize coalitions of like-minded interest, and skill (perhaps technical as well as political) at formulating specific reform proposals.



Building on the argument that organizations are political arenas (Mintzberg 1985), Ferris et al. (2005) devised a political skill inventory as comprised of networking ability, apparent sincerity, social astuteness and interpersonal influence based on attitudinal ratings. Using these constructs, political skills of a leader have been associated with improved team performance (Ahearn et al. 2004), higher levels of individual job performance (Semadar, Robins, and Ferris 2006), impression management effectiveness (Harris et al. 2007). Related studies on public policy equally acknowledged the importance of these constructs particularly, networking (Meier and O'Toole 2003, Mintrom 2003) and pragmatism (Snare 1995).

#### **4. Development of an Actor Policy Capacity Survey**

Based on the literature reviewed, the development of an instrument that can sufficiently capture actor policy capacity requires several criteria to be met. First, it must equally be applicable to policy actors outside the government, particularly those working for non-government organizations influencing policy issues, as well as those working at different levels of the government – national, local or regional government. Inevitably, the instrument will tend to lose nuance as it becomes more comprehensive but the fact that the policy process is not a monopoly of a single actor should be increasingly acknowledge in efforts to empirically measure policy capacity. Second, it must be able to measure the ability of policy actors to navigate through and interact with organizations and institutions in the daily course of their work. The novelty of the general framework of policy capacity proposed by Wu, Ramesh, and Howlett (2015) is recognition of the nested nature of policy capacity – not only do policy capacity exists at different levels but these levels interact with each other. Third, the instrument must be able to appraise the multi-dimensionality of policy capacity. Policy actors are not just contained in a cocoon of regression analysis but are equally involved in engaging with stakeholders, drawing up support for the policy process while managing resources at their disposal.

Another integral part of the operationalization problem of capacity is to decide on the object of measurement of policy capacity. Recent literature about state capacity have asserted the use of process indicators rather than outcome or output indicators to measure capacity (Fukuyama 2013, Holt and Manning 2014). Advocates for using process indicators chiefly argue that outcome indicators suffer from the problem of isolating other confounding factors that led to the outcome/output. The outcomes approach on the other hand identify specific types of capacity that link to a spectrum of desired outcomes from meritocracy in the bureaucracy to economic development (Savoia and Sen 2012). However, these approaches overlook the necessary pre-condition of the existence of inputs and implicitly argues that inputs exist if a process is already in place or if a certain outcome has been achieved. While there is a powerful logic behind this assumption, it limits the understanding of policy capacity to what whether the policy process is performing or to what it has achieved. As Howlett and Ramesh (2015) have argued, such processes and outcomes rely on access to resources that can be used for such purposes. Resource-based theory to assess capacity has been applied to organizational capacities (Andrews, Beynon, and McDermott 2015, Bryson, Ackermann, and Eden 2007, Piening 2013, Gleeson et al. 2011) and individual policy capacity (Gleeson 2009, Gleeson et al. 2009). By putting back resources and inputs into the measurement of policy capacity, efforts to address capacity deficits will not just concentrate on policy performance but also in ensuring policy work is adequately resourced.

Taking these criteria into consideration, the instrument we developed to measure actor policy capacity follows a resource-based approach (see Appendix A for the questionnaire). There are six modules to the questionnaire: About Your Work (QA1-QA11), About Your Training and Education (QB1), Self-Assessment of Skills and Resources (QC1-QC11), Assessment of Organizational Procedures and Resources (QD1-QD7), Assessment of the External Environment (QE1-QE2), and Barriers to Effectiveness at Work (QF1-QF9). It primarily integrates several existing instruments that measure the different dimensions of policy capacity. Considering the replicability criteria, the instrument is self-administered.

The questions about policy analytical capacity and characterization of policy work were mainly derived from instrument developed by Howlett (2009a, b). As earlier defined, policy analytical capacity pertains to relevant skills and resources that allow policy professionals to acquire and utilize policy-relevant knowledge. Related to this, the survey specifically asks the respondents to characterize his or her policy work in terms of the main responsibilities in the job (QA1), policy-related tasks performed (QA2), policy analysis techniques used (QA3), policy-related information used (QA5), time orientation of work (QA7) and association with a dedicated policy work unit (QA8-10). Such characterization is crucial in understanding the nature of policy work policy professionals are assigned to. Educational background and formal training are also assessed to provide an indication of the stock of knowledge the policy professional has that is policy-related. Attitudinal measures are indirectly measured using a self-assessment of training needs (QA6).

The survey includes questions to measure managerial capacity based largely on management studies literature (QC1-7). It measures different constructs such as creativity and innovation (i.e. 'I like to experiment with new approaches to work. '), leadership (i.e. 'I am able to motivate others to care about work we need to accomplish. '), results orientation (i.e. 'I have an understanding of how things really get done at my work. ') and integrative conflict management (i.e. 'I try to work with others to find solutions to a problem which satisfy our expectations. ') (Rahim 1983, Harris et al. 2007). Self-assessment of one's own skills in planning, resource management and performance management is also included in this module. These constructs are linked to the policy leadership competencies identified by Hughes (2014, 230) that includes the ability to manage people, ability to initiate and manage effectively, strong interpersonal and communication skills as well as strong analytical and critical appraisal skills and a range of personal attributes like acumen, decisive, agile, resilient and flexible.

In measuring political capacity, we draw upon the instrument developed by Ferris et al. (2005) on political skills in organization (QC8-11). This survey module is a self-assessment of personality traits and general

attitudes towards the political aspects of policy work, which have been argued before as important to maximizing the impact of a policy actor's role (Snare 1995, Bozeman 1986). The constructs of networking ability (i.e. 'I spend a lot of time and effort at work networking with others.') and interpersonal influence (i.e. 'It is easy for me to develop good rapport with most people.') were specifically used as they have been shown to be particularly important in the policy context (Mintrom 2003, Meier and O'Toole 2003, Meltsner 1976). Some aspect of political skills is also evaluated in terms of the nature of their work of interacting with other stakeholders (QA6). These self-assessed levels of analytical, managerial, and political capacity can be juxtaposed with self-reported importance of skills and resources to their work (QF2).

Respondents are also asked of their own assessment of the resources and procedures of their organizations that impinge on their policy capacity (QD1-7). Specifically, perception about systems related to individual performance management (e.g. 'I receive regular feedback about my individual performance.' 'My individual goals are linked to my organization's goals.') and inter-unit collaboration within the organization (i.e. 'Units and offices within my organization always collaborate with each other'). These are organizational dimensions that have argued as critical in facilitating or limiting the extent to which policy work is performed (Hughes et al. 2015). Given that policy actors are affected by the resources accorded by the political and policy systems, respondents are also asked to rate their level of agreement to statements about political legitimacy (QE1-8). The measure of political legitimacy is based on the instrument developed by Weatherford (1992) on political legitimacy orientations. It includes statements about trust (i.e. 'The government can be trusted to make the right decision.'), government competence (i.e. 'Government is capable of implementing policies effectively.') and subjective political competence (i.e. 'Election results reflect the policy preferences of the population.').

Respondents will be asked to identify barriers that influence their effectiveness at work (QF1). The question derived from Howlett (2009a, b) identifies key individual and organizational factors that can affect the extent to which a policy professional can contribute towards an agency's policy performance, which

includes authority, expertise, training, appreciation of policy work, workload, among others. Questions about organizational resources (QF3) and commitment (QF4). Lastly, the respondents are asked to provide an over-all assessment of his own individual policy skills (QF5), organization's policy skills (QF6) and effectiveness of performing policy function of the external environment (QF7).

## **Concluding Remarks**

The aim of this paper is to discuss the development of an instrument to measure individual-level policy capacity. The task of developing a means to operationalize a highly contested concept necessitated a resource-based approach to capacity. This article adopts the definition of policy capacity as one's set of skills and resources that are important to perform policy-related functions and tasks. However, such an instrument needs to consider several important criteria: applicability to the entire gamut of policy work including not-for-profit and advocacy work, interaction of the individual policy actor with organizational resources and procedures, and the external environment; and the multi-dimensionality of policy work to include analytical, managerial and political components. By meeting all these criteria, the Actor Policy Capacity Survey hopes to adequately capture the policy capacity's complex nature and the factors that shape it. Capacity development interventions for policy analysts and policy professionals can better be guided in how to properly address critical capacity deficits.

The development of the survey instrument is an essential first step in a wider effort to move towards to a more rigorous and comprehensive measurement of policy capacity. A validation of the instrument's validity and reliability must be undertaken to ensure that policy capacity is assessed credibly and adequately. Not only does the questionnaire need to be tested among policy analysts and professionals from the different levels of government but also among non-governmental workers and government affairs officers from the private sector. It is hoped that the Actor Policy Capacity Survey will allow for future comparative research of the capacities of policy actors across different sectors, contexts and countries.

## Appendix: Actor Policy Capacity Survey Instrument

### BACKGROUND OF THE STUDY

The research project seeks to assess policy capacity at different levels - individual, organizational and systemic.

You are invited to kindly complete this questionnaire because of your current or most recent position in public policy. Your participation is voluntary. If you do decide to participate in this survey, you may withdraw at any time.

In this survey, you will be asked information about yourself, your work and, your education and training. The survey also involves a self-assessment of policy-related competencies. Answering the survey will take approximately 10 to 20 minutes.

We assure you that your participation in the survey and your individual responses will be strictly confidential to the research team and will not be divulged to any outside party, including other respondents. The results of the survey will be used for scholarly purposes only and might be shared in the form of an academic paper or conference presentation.

By checking the box next to "agree" below:

- you have read the above information; and,
- you voluntarily agree to participate

☐ Agree

☐ Disagree

**Date:**

□□/□□/□□□□  
dd mm year

**Start Time:** □□:□□  
am/pm

**End :** □□:□□ am/pm

### DEMOGRAPHIC PROFILE (Circle the number that corresponds to your answer.)

<b>Gender:</b> 1 – Male 2 – Female	<b>Age (in years):</b> _____	<b>Highest educational attainment:</b> 1 – Secondary 2 – Completed College 3 – Completed Master 4 – Completed PhD	<b>Field(s) of study (Encircle all that applies):</b> 1 – Humanities (e.g. History, Philosophy) 2 – Social Sciences (e.g. Anthropology, Political Science, Economics) 3 – Natural Sciences (e.g. Biology, Chemistry, Earth sciences) 4 – Formal Sciences (e.g. Mathematics, Statistics) 5 – Applied Sciences (e.g. Engineering, Environmental studies, Agriculture) 6 – Professions (e.g. Medicine, Architecture, Business, Education) 7 – Public Administration, Public Policy or Public Affairs 8 – Other, please specify: _____
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<b>Country of your employment:</b> <hr/>	<b>How many policy-related positions have you held in the past 5 years?</b> <hr/>	<b>Sector(s) of professional policy-related work experience (Encircle all that applies)</b> 1 – Federal or national government 2 – Local government 3 – Private sector 4 – Not-for-profit sector 5 – International organizations 6 – Academia 7 – Other, please specify: <hr/>	<b>Policy areas of your work (Encircle all that applies)</b> 1 – Economic Affairs (e.g. Industry, Trade, Labor, Transport, and Communication) 2 – Social and Welfare Services (e.g. Health, Education, Housing) 3 – Environment and Natural Resources (e.g. Waste Management, Environmental Protection) 4 – Justice, Public Order and Safety (e.g. Police, Corrections, Judicial, Defense) 5 – General Public Services (e.g. Foreign Affairs, Government Financial and Fiscal Affairs, Legislative) 6 – Other, please specify: <hr/>
<b>Years of career experience in policy-related work (in years)</b> <hr/>			

**A. ABOUT YOUR WORK (Circle the number that corresponds to your answer.)**

<b>QA1</b>	What best describes your current position? (Choose only <u>one</u> )	1 – Analyst/Researcher 2 – Evaluation/Monitoring/Assessment 3 – Management 4 – Planning and Development 5 – Public Participation/Stakeholder Engagement/ 6 – Internal or External Communications/Liaison 7 – Frontline Service Delivery 8 – Other, please specify: _____				
<b>QA2</b>	How often do you perform the following in your current position? (Circle the number that best corresponds to your answer.)	Never	Rarely	Sometimes	Often	Always
	1 – Collect policy-related data or information	1	2	3	4	5
	2 – Identify and appraise policy options/solutions	1	2	3	4	5
	3 – Evaluate policy processes, results and outcomes	1	2	3	4	5
	4 – Prioritize policy tasks	1	2	3	4	5
	5 – Manage implementation or delivery of programs	1	2	3	4	5
	6 – Brief policy managers and decision-makers (e.g. cabinet ministers, senior managers)	1	2	3	4	5
	7 – Negotiate with stakeholders on policy matters	1	2	3	4	5
	8 – Consult with the public on policy matters	1	2	3	4	5
	9 – Other, please specify: _____	1	2	3	4	5

<b>QA3</b>	How often do you employ the following techniques in your job? (Circle the number that best corresponds to your answer.)	Never	Rarely	Sometimes	Often	Always
	1 – Consultations (e.g. focus groups)	1	2	3	4	5
	2 – Expert judgments and elicitation	1	2	3	4	5
	3 – Statistical analysis	1	2	3	4	5
	4 – Modelling techniques	1	2	3	4	5
	5 – Social network and media analysis	1	2	3	4	5
	6 – Scenario analysis and planning, and risk analysis	1	2	3	4	5
	7 – Economic analysis (e.g. Cost-benefit analysis)	1	2	3	4	5
	8 – Impact assessment (e.g. environment, social, financial, political)	1	2	3	4	5
	9 – Survey design and administration	1	2	3	4	5
	10 – Literature reviews	1	2	3	4	5
	11 – Other, please specify _____	1	2	3	4	5
<b>QA4</b>	How much would you benefit from a training program or university course on any of the following topics? (Circle the number that best corresponds to your answer.)	Not at all beneficial	Moderately not beneficial	Neutral	Moderately beneficial	Very beneficial
	1 – Identifying data and information relevant for policy analysis	1	2	3	4	5
	2 – Designing and administering surveys	1	2	3	4	5
	3 – Collecting valid and reliable qualitative data	1	2	3	4	5
	4 – Integrating existing research evidence with policy-related tasks	1	2	3	4	5
	5 – Conducting statistical analysis and other quantitative techniques	1	2	3	4	5
	6 – Conducting qualitative analysis	1	2	3	4	5
	7 – Managing an office including the budget and other resources	1	2	3	4	5
	8 – Leading a team	1	2	3	4	5
	9 – Understanding and influencing organizational culture	1	2	3	4	5
	10 – Establishing networks outside the organization	1	2	3	4	5



<b>QA5</b>	How often do you use the following sources of information in your work? (Circle the number that best corresponds to your answer.)	Never	Rarely	Sometimes	Often	Always
	1 – Survey and statistical data	1	2	3	4	5
	2 – Operations and monitoring data (e.g. program expenditure)	1	2	3	4	5
	3 – Program evaluation results (e.g. physical accomplishments, impact)	1	2	3	4	5
	4 – Expert opinion (academic, think tanks and consultants)	1	2	3	4	5
	5 – Government documents (e.g. white papers, task force reports)	1	2	3	4	5
	6 – Personal experience or opinion	1	2	3	4	5
	7 – Interest groups-provided information (e.g. industry, non-governmental organizations)	1	2	3	4	5
	8 – Legal opinions	1	2	3	4	5
	9 – Social media	1	2	3	4	5
	10 – Traditional media (e.g. news reports)	1	2	3	4	5
	11 – Other: _____	1	2	3	4	5
<b>QA6</b>	How often do you interact with the following organizations? (Circle the number that best corresponds to your answer.)	Never	Rarely	Sometimes	Often	Always
	1 – Other ministries within your government	1	2	3	4	5
	2 – The federal or national government	1	2	3	4	5
	3 – Local governments	1	2	3	4	5
	4 – Other national governments	1	2	3	4	5
	5 – Private sector	1	2	3	4	5
	6 – International organizations	1	2	3	4	5
	7 – Not-for-profit sector	1	2	3	4	5
	8 – Academia	1	2	3	4	5
	9 – Other, please specify: _____	1	2	3	4	5
<b>QA7</b>	To what extent do you agree on the following statements? (Circle the number that best corresponds to your answer.)	Strongly disagree (1)	(2)	(3)	(4)	Strongly agree (5)
	1 – I mostly work on short-term assignments.	1	2	3	4	5
	2 – I mostly work on long-term assignments.	1	2	3	4	5
<b>QA8</b>	Do you belong to a work unit officially assigned to accomplish policy-related	1 – Yes  <b>Go to QA9</b> 2 – No  <b>Skip to Section B</b>				

	tasks (e.g. policy analysis, policy evaluation, environmental scanning)?					
<b>QA9</b>	How many full-time equivalent (regular) employees are in your unit?	Number of employees: _____				
<b>QA10</b>	How many of these employees work on policy-related tasks?	Number of employees: _____				
<b>B. ABOUT YOUR TRAINING AND EDUCATION</b>						
<b>QB1</b>	If you have attended any of the following training or university course, what was the setting of this training/course? (Circle all that applies)	Not applicable	<u>External</u> to my organization (e.g. third-party or external training firms or university)	<u>Internal</u> to my organization (e.g. training institutes or units within my organization)		
	1 – Formal policy analysis or evaluation (e.g. cost benefit analysis)	1	2	3		
	2 – Leadership, management or supervision	1	2	3		
	3 – Political analysis and networking	1	2	3		
	4 – Budgeting and staff management	1	2	3		
	5 – Law or constitution	1	2	3		
<b>C. SELF-ASSESSMENT OF SKILLS AND RESOURCES</b>						
<i>To what extent do you agree with the following statements? Circle the number that corresponds to your answer.</i>		Strongly disagree (1)	(2)	(3)	(4)	Strongly agree (5)
<b>QC1</b>	I am able to motivate others to care about work we need to accomplish.	1	2	3	4	5
<b>QC2</b>	I like to experiment with new approaches to work.	1	2	3	4	5
<b>QC3</b>	I have an understanding of how things really get done at my work.	1	2	3	4	5
<b>QC4</b>	I try to work with others to find solutions to a problem which satisfy our expectations.	1	2	3	4	5
<b>QC5</b>	I can translate mental plans into written targets, goals, strategies and actions.	1	2	3	4	5
<b>QC6</b>	I have the necessary skills for budgeting and expenditure monitoring.	1	2	3	4	5
<b>QC7</b>	I have the skills to assess and promote the performance of my team members.	1	2	3	4	5
<b>QC8</b>	I am able to communicate easily and effectively with others.	1	2	3	4	5
<b>QC9</b>	It is easy for me to develop good rapport with most people.	1	2	3	4	5
<b>QC10</b>	I spend a lot of time and effort at work networking with others.	1	2	3	4	5
<b>QC11</b>	I have developed a large network at work who I can call on for support when I really need to get things done.	1	2	3	4	5

D. ASSESSMENT OF ORGANIZATIONAL PROCEDURES AND RESOURCES		Strongly disagree (1)	(2)	(3)	(4)	Strongly agree (5)
<i>In the context of your current position, to what extent do you agree with the following statements? Circle the number that corresponds to your answer.</i>						
<b>QD1</b>	People like me have a say in what my organization does.	1	2	3	4	5
<b>QD2</b>	Units and offices in my organization always collaborate with each other.	1	2	3	4	5
<b>QD3</b>	My organization considers stakeholders' inputs when necessary.	1	2	3	4	5
<b>QD4</b>	Most of the people running my organization usually know what they are doing.	1	2	3	4	5
<b>QD5</b>	I receive regular feedback about my individual performance.	1	2	3	4	5
<b>QD6</b>	My individual goals are linked to my organization's goals.	1	2	3	4	5
<b>QD7</b>	I have access to policy-makers outside my organization.	1	2	3	4	5
E. ASSESSMENT OF THE EXTERNAL ENVIRONMENT		Strongly disagree (1)	(2)	(3)	(4)	Strongly agree (5)
<i>To what extent do you agree with the following statements? Circle the number that corresponds to your answer.</i>						
<b>QE1</b>	Election results reflect the policy preferences of the population	1	2	3	4	5
<b>QE2</b>	The government can be trusted to make the right decision.	1	2	3	4	5
<b>QE3</b>	Government is capable of implementing policies effectively.	1	2	3	4	5
<b>QE4</b>	The population is well-enough educated to make informed decisions.	1	2	3	4	5
<b>QE5</b>	Government agencies are working with each other.	1	2	3	4	5
<b>QE6</b>	Government decisions are based on evidence.	1	2	3	4	5
<b>QE7</b>	The public understands the challenges and constraints that confront the government.	1	2	3	4	5
<b>QE8</b>	People like me have access to necessary information about government's services to assess its performance.	1	2	3	4	5

## F. BARRIERS TO EFFECTIVENESS AT WORK

<b>QF1</b>	In your opinion, what are the main barriers to your effective involvement in your department or agency's policy performance? (Encircle all that applies.)	1 – My superiors do not value my work. 2 – I am not given the necessary authority. 3 – I do not have the expertise to carry out my job. 4 – I have insufficient training opportunities. 5 – My colleagues do not value my work. 6 – I do not have enough resources (e.g. financial, personnel, etc.) to do my job. 7 – I have too many urgent tasks to do. 8 – There is no demand for rigorous policy work within my organization. 9 – I do not have access to relevant information or data. 10 – I do not have access to the 'right people' in my organization 11 – Other, _____ please specify: _____				
<b>QF2</b>	How important are the following in your work? (Circle the number that corresponds to your answer.)	Very unimportant	Somewhat unimportant	Neither Important nor unimportant	Somewhat Important	Very important
	1 – Analytical skills and resources (e.g. being able to obtain and utilize policy-relevant knowledge)	1	2	3	4	5
	2 – Managerial skills and resources (e.g. leadership and effectively using resources to achieve a goal)	1	2	3	4	5
	3 – Political skills and resources (e.g. creating political support for policy work)	1	2	3	4	5
<b>QF3</b>	Over the past 5 years, have your department's budget, information and personnel resources for policy-related work (e.g. policy analysis/evaluation):	Greatly decreased	Moderately decreased	No change	Moderately increased	Greatly increased
		1	2	3	4	5
<b>QF4</b>	Based on your experience, how committed is your department or agency to improving policy skills?	Very committed	Moderately committed	Slightly committed	Not very committed	Not at all committed
		1	2	3	4	5
<b>QF5</b>	Overall, how would you rate your <u>individual</u> policy skills?	Very low	Low	Moderate	High	Very High
		1	2	3	4	5

<b>QF6</b>	Overall, how would you rate your <u>organization's policy skills</u> ?	Very low	Low	Moderate	High	Very High
		1	2	3	4	5
<b>QF7</b>	Overall, how would you rate the external environment for performing policy functions?	Very low	Low	Moderate	High	Very High
		1	2	3	4	5
<b>QF8</b>	Any final thoughts you wish to add?					
<b>QF9</b>	How would you improve this survey?					

## References

- Aberbach, Joel D, Daniel B Mezger, and Bert A Rockman. 1991. "Bureaucrats and politicians: a report on the administrative elites project." *Australian Journal of Public Administration* 50 (2):203-217.
- Ahearn, Kathleen K., Gerald R. Ferris, Wayne A. Hochwarter, Ceasar Douglas, and Anthony P. Ammeter. 2004. "Leader Political Skill and Team Performance." *Journal of Management* 30 (3):309-327. doi: 10.1016/j.jm.2003.01.004.
- Alesina, Alberto, and Guido Tabellini. 2007. "Bureaucrats or politicians? Part I: a single policy task." *The American Economic Review* 97 (1):169-179.
- Andrews, Rhys, Malcolm J Beynon, and Aoife M McDermott. 2015. "Organizational capability in the public sector: a configurational approach." *Journal of Public Administration Research and Theory*:muv005.
- Bhatta, Gambhir. 2002. "Evidence-based Analysis and the Work of Policy Shops." *Australian Journal of Public Administration* 61 (3):98-105.
- Bozeman, Barry. 1986. "The credibility of policy analysis: Between method and use." *Policy Studies Journal* 14 (4):519.
- Bryson, John M, Fran Ackermann, and Colin Eden. 2007. "Putting the resource-based view of strategy and distinctive competencies to work in public organizations." *Public Administration Review* 67 (4):702-717.
- Capano, Giliberto. 2009. "Understanding policy change as an epistemological and theoretical problem." *Journal of Comparative Policy Analysis* 11 (1):7-31.
- Colebatch, Hal K. 2006a. "Mapping the work of policy." In *Beyond the Policy Cycle: The Policy Process in Australia*, edited by Hal K Colebatch, 1-19. Sydney: Allen and Unwin.
- Colebatch, Hal K. 2006b. "What work makes policy?" *Policy sciences* 39 (4):309-321.
- Davis, Glyn Conrad. 2000. *Conclusion: policy capacity and the future of governance*: Allen & Unwin.
- Dunn, William N. 2015. *Public policy analysis*: Routledge.

- Elgin, Dallas J, and Christopher M Weible. 2013. "A stakeholder analysis of Colorado climate and energy issues using policy analytical capacity and the advocacy coalition framework." *Review of Policy Research* 30 (1):114-133.
- Fellegi, Ivan. 1996. "Strengthening our policy capacity." *Report of the Deputy Ministers Task Force. Ottawa: Supply and Services Canada.*
- Ferris, Gerald R, Darren C Treadway, Robert W Kolodinsky, Wayne A Hochwarter, Charles J Kacmar, Ceasar Douglas, and Dwight D Frink. 2005. "Development and validation of the political skill inventory." *Journal of Management* 31 (1):126-152.
- Fukuyama, Francis. 2013. "What is governance?" *Governance* 26 (3):347-368.
- Gleeson, Deborah. 2009. "Developing policy leadership: a strategic approach to strengthening policy capacity in the health bureaucracy." La Trobe University.
- Gleeson, Deborah H., David G. Legge, apos, and Deirdre Neill. 2009. "Evaluating health policy capacity: learning from international and Australian experience." *Australia and New Zealand Health Policy* 6:3.
- Gleeson, Deborah, David Legge, Deirdre O'Neill, and Monica Pfeffer. 2011. "Negotiating tensions in developing organizational policy capacity: Comparative lessons to be drawn." *Journal of Comparative Policy Analysis: Research and Practice* 13 (3):237-263.
- Harris, Kenneth J, K Michele Kacmar, Suzanne Zivnuska, and Jason D Shaw. 2007. "The impact of political skill on impression management effectiveness." *Journal of Applied Psychology* 92 (1):278.
- Hicklin, Alisa, and Erik Godwin. 2009. "Agents of Change: The Role of Public Managers in Public Policy." *Policy Studies Journal* 37 (1):13-20. doi: 10.1111/j.1541-0072.2008.00292.x.
- Holt, Jordan, and Nick Manning. 2014. "Fukuyama Is Right about Measuring State Quality: Now What?" *Governance* 27 (4):717-728.
- Howlett, Michael. 2009a. "Policy advice in multi-level governance systems: Sub-national policy analysts and analysis." *International Review of Public Administration* 13 (3):1-16.

- Howlett, Michael. 2009b. "Policy analytical capacity and evidence-based policy-making: Lessons from Canada." *Canadian public administration* 52 (2):153-175.
- Howlett, Michael. 2011. "Public managers as the missing variable in policy studies: An empirical investigation using Canadian data." *Review of Policy Research* 28 (3):247-263.
- Howlett, Michael, and Sima Joshi-Koop. 2011. "Transnational learning, policy analytical capacity, and environmental policy convergence: survey results from Canada." *Global Environmental Change* 21 (1):85-92.
- Howlett, Michael, and Joshua Newman. 2010. "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 (2):123-136.
- Howlett, Michael, and M Ramesh. 2015. "Achilles' heels of governance: Critical capacity deficits and their role in governance failures." *Regulation & Governance*.
- Howlett, Michael, and Richard M Walker. 2012. "Public managers in the policy process: More evidence on the missing variable?" *Policy Studies Journal* 40 (2):211-233.
- Hughes, A, D Gleeson, D Legge, and V Lin. 2015. "Governance and policy capacity in health development and implementation in Australia." *Policy and Society* 34 (3):229-245.
- Hughes, Alison Louisa. 2014. "The work of policy in Australian health authorities: A systems approach to aligning capacity and process."
- Jenkins-Smith, Hank C. 1982. "Professional roles for policy analysts: A critical assessment." *Journal of Policy Analysis and Management* 2 (1):88-100.
- Jones, Bryan D. 2003. "Bounded rationality and political science: Lessons from public administration and public policy." *Journal of Public Administration Research and Theory* 13 (4):395-412.
- Kingdon, John W. 1984. *Agendas, alternatives, and public policies*: Little, Brown Boston.
- Mayer, Igor S, C Els van Daalen, and Pieter WG Bots. 2004. "Perspectives on policy analyses: a framework for understanding and design." *International Journal of Technology, Policy and Management* 4 (2):169-191.



- McLendon, Michael K., and Erik C. Ness. 2003. "The Politics of State Higher Education Governance Reform." *Peabody Journal of Education* 78 (4):66-88. doi: 10.1207/S15327930PJE7804\_05.
- Meier, Kenneth J. 2009. "Policy theory, policy theory everywhere: Ravings of a deranged policy scholar." *Policy Studies Journal* 37 (1):5-11.
- Meier, Kenneth J., and Laurence J O'Toole. 2003. "Public management and educational performance: The impact of managerial networking." *Public Administration Review* 63 (6):689-699.
- Meier, Kenneth J., and Laurence J. O'Toole. 2002. "Public management and organizational performance: The effect of managerial quality." *Journal of Policy Analysis and Management* 21 (4):629-643. doi: 10.1002/pam.10078.
- Meltsner, Arnold J. 1976. *Policy analysts in the bureaucracy*: Univ of California Press.
- Mintrom, Michael. 1997. "Policy Entrepreneurs and the Diffusion of Innovation." *American Journal of Political Science* 41 (3):738-770. doi: 10.2307/2111674.
- Mintrom, Michael. 2003. *People skills for policy analysts*: Georgetown University Press.
- Mintrom, Michael, and Sandra Vergari. 1996. "Advocacy coalitions, policy entrepreneurs, and policy change." *Policy studies journal* 24 (3):420.
- Mintzberg, Henry. 1985. "The organization as political arena." *Journal of management studies* 22 (2):133-154.
- Moore, Mark H. 1983. "Social science and policy analysis." In *Ethics, the social sciences, and policy analysis*, 271-291. Springer.
- Niskanen, William A. 1975. "Bureaucrats and politicians." *The Journal of Law & Economics* 18 (3):617-643.
- O'Toole, Laurence J., and Kenneth J. Meier. 2003. "Plus ça Change: Public Management, Personnel Stability, and Organizational Performance." *Journal of Public Administration Research and Theory: J-PART* 13 (1):43-64.
- Page, Edward C. 2010. "Bureaucrats and expertise: Elucidating a problematic relationship in three tableaux and six jurisdictions." *Sociologie du travail* 52 (2):255-273.

- Pal, Leslie A, and Ian D Clark. 2015. "Making reform stick: Political acumen as an element of political capacity for policy change and innovation." *Policy and Society* 34 (3):247-257.
- Parsons, Wayne. 2004. "Not just steering but weaving: Relevant knowledge and the craft of building policy capacity and coherence." *Australian journal of public administration* 63 (1):43-57.
- Peters, B. Guy, and Jon Pierre. 2001. "Civil servants and politicians: The changing balance." In *Politicians, Bureaucrats and Administrative Reform*, edited by B. Guy Peters and Jon Pierre, 1-10. London and New York: Routledge/ECPR Studies in European Political Science
- Piening, Erk P. 2013. "Dynamic capabilities in public organizations: A literature review and research agenda." *Public Management Review* 15 (2):209-245.
- Pierre, Jon, and Martin Painter. 2005. "Unpacking policy capacity: Issues and themes." *Painter, M. & Pierre, J.(eds). Challenges to State Policy Capacity: Global Trends and Comparative Perspectives.*
- Putnam, Robert D. 1973. "The political attitudes of senior civil servants in Western Europe: A preliminary report." *British Journal of Political Science* 3 (03):257-290.
- Radin, Beryl A. 2013. "Policy analysis reaches midlife." *Central European Journal of Public Policy* 7 (1):8-27.
- Rahim, M Afzalur. 1983. "A measure of styles of handling interpersonal conflict." *Academy of Management journal* 26 (2):368-376.
- Rhodes, RAW. 2014. "Recovering the 'craft' of public administration in network governance." Plenary Address to the International Political Science Association World Congress, Montreal, 19-24 July.
- Sabatier, Paul A. 1988. "An advocacy coalition framework of policy change and the role of policy-oriented learning therein." *Policy sciences* 21 (2-3):129-168.
- Savoia, Antonio, and Kunal Sen. 2012. "Measurement and evolution of state capacity: exploring a lesser known aspect of governance." *Effective States and Inclusive Development Research Centre Working Paper* 10.

- Semadar, Assaf, Garry Robins, and Gerald R Ferris. 2006. "Comparing the validity of multiple social effectiveness constructs in the prediction of managerial job performance." *Journal of Organizational Behavior* 27 (4):443-461.
- Snare, Charles E. 1995. "Windows of opportunity: when and how can the policy analyst influence the policymaker during the policy process." *Review of Policy Research* 14 (3-4):407-430.
- Stone, Deborah A. 1989. "Causal Stories and the Formation of Policy Agendas." *Political Science Quarterly* 104 (2):281-300. doi: 10.2307/2151585.
- Stone, Diane. 2001. "Learning lessons, policy transfer and the international diffusion of policy ideas."
- Tiernan, Anne. 2015. "Craft and Capacity in the Public Service." *Australian Journal of Public Administration* 74 (1):53-62.
- Vigoda-Gadot, Eran, and Fany Yuval. 2003. "Managerial quality, administrative performance and trust in governance revisited: A follow-up study of causality." *International Journal of Public Sector Management* 16 (7):502-522.
- Weatherford, M Stephen. 1992. "Measuring political legitimacy." *American Political Science Review* 86 (01):149-166.
- Weissert, Carol S. 1991. "Policy Entrepreneurs, Policy Opportunists, and Legislative Effectiveness." *American Politics Quarterly* 19 (2):262-274. doi: 10.1177/1532673x9101900207.
- Wellstead, Adam M, Richard C Stedman, and Michael Howlett. 2011. "Policy analytical capacity in changing governance contexts: A structural equation model (SEM) study of contemporary Canadian policy work." *Public Policy and Administration* 26 (3):353-373.
- Wellstead, Adam, Richard C Stedman, and Evert Lindquist. 2009. "The nature of regional policy work in Canada's public service." *Canadian Political Science Review* 3 (1):34-56.
- Wilson, Graham K, and Anthony Barker. 2003. "Bureaucrats and politicians in Britain." *Governance* 16 (3):349-372.
- Wu, X, M Ramesh, and M Howlett. 2015. "Policy capacity: A conceptual framework for understanding policy competences and capabilities." *Policy and Society* 34 (3):165-171.

Wu, Xun, M Ramesh, Michael Howlett, and Scott Fritzen. 2010. *The public policy primer: Managing public policy*. London: Routledge.

Zhang, Yahon, Yahong Zhang, Robert Lee, and Kaifeng Yang. 2012. "Knowledge and Skills for Policy Making: Stories from Local Public Managers in Florida." *Journal of Public Affairs Education*:183-208.