

**PROCEDURAL POLICY INSTRUMENT CHOICE
DYNAMICS BETWEEN POLITICAL DELEGITIMATION
AND ADVISORY COMMITTEE CREATION: EVIDENCE
FROM THE UNITED STATES FEDERAL AGRICULTURE
AND TRANSPORTATION POLICY SECTORS 1997 – 2004**

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ABSTRACT

The procedural instrument choice model purports to set out an empirical theory intended to predict specific instrument choices emerging from the legitimation problems facing governments. However, the value of this theoretical approach can only be judged through empirical testing, and in terms of its practical value, by an assessment of its predictive utility in the policy process. Using time series data from the United States federal agriculture and transportation sectors, particular attention is given to the creation of the federal advisory committees, and whether the hypothesized delegitimation patterns empirically prevail prior to the creation of these committees. This analysis demonstrates the existence of conflicting empirical evidence undermining the model's postulates regarding the theoretic linkages between political delegitimation patterns facing the U.S. government and its advisory committee creations. The evidence gathered in the American case suggests that several key assumptions behind the model must be altered to account for these findings.

DEDICATION

To my family.

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LIST OF ABBREVIATIONS

ACF	Autocorrelation Function
ARIMA	Autoregressive, Integrated, Moving Average
D.o.T	U.S. Department of Transportation
FACA	U.S. Federal Advisory Committee Act
PACF	Partial Autocorrelation Function
U.S.D.A.	U.S. Department of Agriculture

1 INTRODUCTION

The most important choice for contemporary western industrialized governments concerns the policy instruments used to achieve their policy aims and initiatives. Instrument choice is a major concern in the policy-making process, and the recommendations for policy choice must canvas the available options for instruments. Prudent choice of instruments is integral to policy analysis since the instruments have major implications for the timing and eventual success of policy implementation. Also, costs and benefits, social and political acceptability, and legality can all be fundamentally affected by the choice of instrument.

The literature on policy instrument choice examines the ways governments select different forms of public action - including regulatory, economic and social instruments - to address public problems and pursue public purposes.¹ The various instruments constitute "...the set of institutional techniques by which governments wield their power in order to ensure support and affect and prevent social change."² Christopher Hood, for example, has referred to these governmental techniques as the "tools of government."³ As Hood put it:

¹ F.Pearl Eliadis, "Foundation Paper: Instrument Choice in Global Democracies," Policy Research Initiative, http://policyresearch.gc.ca/page.asp?pffagenm=law_droit_instruments_foundation#1. Retrieved: 21 August 2005.

² Evert Vedung, "Policy Instruments: Typologies and Theories," in *Carrots, Sticks, and Sermons: Policy Instruments and Their Evaluation*, eds. Marie Louise Bemelmans-Videc, Ray C. Rist, and Evert Vedung (New Brunswick, USA: Transaction Publishers, 1998), 21.

³ Christopher Hood, *The Tools of Government* (Chatham: Chatham House Publishers, 1986), 21 - 90.

We can imagine government as a set of administrative tools – such as tools for carpentry or gardening, or anything else you like. Government administration is about control, not carpentry or gardening. But there is a tool-kit for that, just like anything else. What government does to us – its subjects or citizens – is to try to shape our lives by applying a set of administrative tools in many different combinations and contexts, to suit a variety of purposes.⁴

Throughout the 1970s and 1980s, scholars focused on technical efficiency and effectiveness as primary considerations or factors underpinning the tool choices of governments.⁵ At that time, efficiency and effectiveness were crucial considerations since governments were prone to deploying instruments such as public corporate entities, public sector units, or command-and-control regulatory measures in order to affect the production and delivery of society's goods and services (e.g., public goods, education, social, welfare, and health services).⁶ The scholarly debates revolved around whether the instrumental means chosen by governments were achieving their intended effects with the minimum expenditure of political and economic resources. Yet throughout much of this period, academic writers expressed critical concerns over the drive for technical

⁴ Ibid., 2.

⁵ See Michael J. Trebilcock, J. Robert S. Prichard, Douglas Hartle, and Donald Dewees, *The Choice of Governing Instrument* (Ottawa: Minister of Supply and Services Canada, 1982); Michael J. Trebilcock, "The Choice of Governing Instrument: A Retrospective," in *Designing Government: From Instruments to Governance*, eds. Pearl Eliadis, Margaret Hill, and Michael Howlett (Montreal: McGill-Queen's University Press, 2005), 51 – 76; Margaret Hill, *A Historical Perspective on Regulatory Reform: Institutions and Ideas after the Regulation Reference* (Ottawa: Treasury Board Secretariat, 1996); Bruce Doern and Peter Aucoin, *The Structures of Policy Making in Canada* (Toronto: McMillan, 1971).

⁶ By the early 1980s, Lester Salamon, began systematically categorizing policy instruments in order to better analyze and examine the reasons for their use. See, Lester M. Salamon, "Rethinking Public Management: Third-party Government and the Changing Forms of Government Action," *Public Policy* 29, no. 3 (1981): 255-275; Lester M. Salamon, *The Tools of Government: A Guide to New Governance* (New York: Oxford University Press, 2000).

efficiency since information, legal, and electoral constraints often prevented policy makers from choosing within the possible range of technically efficient policy instruments.⁷ By questioning the axiomatic principle that instrument choice was about the function of technical efficiency, critical scholars noted that policy makers and governments were rarely, if ever, provided with complete or “perfect” information necessary for rationally comprehensive policy decisions. Second, other researchers noted the existence of domestic constitutional legal constraints and the emergence of international legal regimes that prevented policy makers from making instrumentally efficient choices in tool deployment, and finally, that policy makers in certain contexts would choose instruments catered to marginal voters in the hopes of political vote maximization.⁸

The debates on instrument choice at the beginning of the 21st century are qualitatively different than they were in the seventies and eighties. Arising from the critical debates on instrumental efficiency and effectiveness, the work of contemporary instrumentation scholars has broadened the initial logics buttressing the rationale for instrument choice. There is now a more sophisticated and broader theoretical understanding to policy instrument choice, which goes beyond the tests of instrumental efficiency and effectiveness proposed in earlier decades. F. Pearl Eliadis, for example, argues that instrument choice is an overarching modern governance issue that is central to the legitimacy and accountability of governments. Eliadis’ perspective suggests that

⁷ Peter A. Hall and Rosemary C.R. Taylor, “Political Science and the Three New Institutionalisms,” *Political Studies* 44 (1996): 936 – 957.

⁸ Margaret Hill, “Tools as Art: Observations on the Choice of Governing Instrument,” in *Designing Government: From Instruments to Governance*, eds. Pearl Eliadis, Margaret Hill, and Michael Howlett (Montreal: McGill-Queen’s University Press, 2005), 23 – 30.

contemporary governments and their administrators are more consciously aware that policy aims and initiatives are ultimately achieved through the acceptance of the legitimacy of particular instruments.⁹ The criterion of policy instrument choice goes beyond considerations for technical efficiency to an acknowledgment that instrument choices are inherently intertwined with the legitimacy or political trust required for governments to govern. As Eliadis put it:

Legitimacy, transparency and equity emphasize the *institutional* context within which behaviours take place, having particular regard for the relationships between government, individuals, civil society and markets as key channels for policy interventions. If factors such as legitimacy, transparency and equity are indeed primary considerations in instrument choice, then decisions about how governments choose particular forms of public action are not so much a technical judgment about the relative effectiveness of one particular instrument over another than they are a complex, qualitative assessment of the appropriateness of a particular instrument or set of instruments.¹⁰

Others have also argued that plausible linkages exist between legitimacy and policy instrument choice. Marie-Louise Bemelmans-Vidac, for example, in her quest for institutional rationales regarding the process of instrument choice highlights the existence

⁹ Eliadis, "Foundation Paper: Instrument Choice in Global Democracies."

¹⁰ Ibid.; See also, James G. March and Johan P. Olsen, *Rediscovering Institutions: The Organizational Basis to Politics* (New York: Free Press, 1989). For example, March and Olsen define new institutionalism as implying that political institutions influence society, economy, and history, so that institutional frameworks decisively shape the character of individual behaviour. They argue that political actors are driven by their institutional roles and duties as well as, or instead of, by calculated self-interest. As they state on p. 159: "...politics is organized around the construction and interpretation of meaning as well as, or instead of, the making of choices; routines, rules, and forms evolve through history-dependent processes that do not reliably and quickly reach unique equilibria; the institutions of politics are not simple echoes of social forces; and the polity is something different from, or more than, an arena of competition among rival interests."

of five central 'values' by which choice could be evaluated.¹¹ These five values, which Bemelmans argues are effectiveness, efficiency, legality, democracy, and legitimacy, constitute the "dominant criteria of 'good governance,' of policies (product) and of administrative action in devising and enacting policies (process) in democratic society."¹² Bemelmans remarks on legitimacy as a central criterion by which to judge policy instrument choice:

The concept has various meanings: it may refer to the degree to which government choices are perceived as 'just' and 'lawful' in the eyes of the involved actors (subjective lawfulness). Legitimacy should be discerned from 'legality' (objective lawfulness)... Legitimacy may also have a broader meaning in referring to the degree of actual support a government may realize for its choices, because the actors involved perceive them as in correspondence with their own views, feelings, or objectives.... Legitimacy represents a political criterion which stresses that acceptance is crucial for actual effectiveness of a policy or program. It is then regarded as 'conditio sine qua non' for effectiveness; without it, the governee will look for behaviour alternative to the one prescribed or induced by government, and will thus frustrate the intended effects.¹³

The values themselves are a reflection of contemporary schools of thought surrounding the study of public administration.¹⁴ Thus, the managerial-economic approach recognizes the values of effectiveness and efficiency (and economy); the political approach denotes democratic representativeness, accountability, responsiveness, and legitimacy of its elected officials and public institutions; and the legalistic approach, with its concerns for principles of (administrative) due process, rule of law, and

¹¹ Marie-Louise Bemelmans-Vidac, "Introduction: Policy Instrument Choice and Evaluation," in *Carrots, Sticks, and Sermons: Policy Instruments and Their Evaluation*, eds. Marie Louise Bemelmans-Vidac, Ray C. Rist, and Evert Vedung, (New Brunswick, USA: Transaction Publishers, 1998): 1 – 20.

¹² *Ibid.*, 6.

¹³ *Ibid.*, 8.

¹⁴ *Ibid.*

individual rights.¹⁵ Researching the comparative logics premised in managerial and political approaches to explaining policy instrument choice, Rene Baghus acknowledges that instrument choices are not only based on their technical efficiency and theoretical appropriateness, but also considered along parallel streams of logic regarding institutionally embedded factors.¹⁶ Baghus interprets the critical factor as being:

...the establishment of policy instruments as a striving for legitimacy. The striving for legitimacy by an organization is expressed by its actions – in this case the choice of policy instruments – corresponding to the values and morals which exist in the policy community to which the actors belong. The legitimacy is part of the congruence between the characteristics of the policy instrument and the social values and morals, which are expressed by the different actors within the policy community.¹⁷

Central to the focus of the choice of policy instruments as a ‘striving for legitimacy’ has been the notion that contemporary western industrialized governments would resort to using a set of process techniques in order to construct and regain legitimacy, first discussed by Michael Howlett in his work on “procedural” policy instruments.¹⁸ In Howlett’s view, the traditional, command-and-control oriented “*substantive*” instruments, which are used to directly affect the production and delivery of society’s goods and services, are no longer solely effective for modern governance. Instead, he suggests that the procedural instruments are often better suited for an institutional context where social, economic, and political actors are coordinating their

¹⁵ Ibid., 8 – 9.

¹⁶ Rene Baghus, “The Trade-off Between Appropriateness and Fit of Policy Instruments,” in *Public Policy Instruments: Evaluating the Tools of Public Administration*, eds. B. Guy Peters and Frans K.M. van Nispen (Northampton, MA, USA: Edward Elgar, 1998), 46 – 68.

¹⁷ Ibid., 68.

¹⁸ Michael Howlett, “Managing the ‘Hollow State’: Procedural Policy Instruments and Modern Governance,” *Canadian Public Administration* 43, no. 4 (2000): 412-431.

activities within network structures moulded and shaped by ‘globalization’ and democratization.

Howlett’s assumption is that the diversification of socio-economic organization has led to significant increases in the density of state – societal interactions, as more diverse and intense interactions are argued to occur amongst governments and non-governmental policy participants. He notes that successive waves of contracting out and devolving the activities traditionally undertaken by governments have made the traditional substantive instruments less appropriate for modern governance. The resulting inference is that governments are less able than in the past to directly affect the nature, type, quantities, and distribution of societal goods and services purely via the use of substantive policy tools such as the public corporations, regulatory agencies, subsidies and exhortation.

Instead of exclusively relying on the conventional set of substantive instruments, Howlett argues that governments are increasingly supplementing these with procedural tools, which are designed to coordinate state-societal interactions in order to assure general support for governmental aims.¹⁹ Operationally, the utilization of procedural instruments allows governments to manipulate and coordinate the number of policy actors and the nature of their relationships in order to legitimate the policy making

¹⁹ Substantive policy instruments can be categorized as ranging from public enterprises, regulatory agencies, subsidies and exhortation that directly affect policy outcomes.

process.²⁰ Often, this involves procedural techniques enabling governments to manipulate the links and nodes of the networks of actors involved in the policy making process.²¹ Howlett remarks, the procedural instruments "...can be seen to range from information suppression or release designed to mildly affect network behaviour through 'voluntaristic' responses from target actors, to group or institutional reforms designed to restructure existing networks by more or less compulsory means."²² Empirically, these procedural instruments constitute process techniques ranging from judicial review, interest group funding, the deployment of advisory committees, to institutional reorganization and reform.²³ Making the distinction between the substantive and procedural policy instrument variants, Howlett highlights the shift of instrument choices for modern governance:

The study of policy instruments over the past twenty years has generated many insights into instrument use; insights that have helped academics to better understand policy processes and have helped practitioners in Canada and elsewhere design better policies. However, in the process of developing taxonomies and models of instrument choice, many investigators have focused almost exclusively on the specific set of instruments that governments use to alter the distribution of goods and

²⁰ There exist two basic types of procedural policy instruments in most policy sectors. First, are those procedural instruments used to coordinate governments immersed in multi-level systems of governance. The second type are those procedural instruments used to coordinate the actions of governments and relevant non-governmental actors. The present analysis provided here deals with the second type of procedural policy instrument, which are designed to coordinate the actions of relevant non-governmental policy actors.

²¹ Erik Hans Klijn, "Analyzing and managing policy processes in complex networks: a theoretical examination of the concept policy network and its problems," *Administration and Society* 28, no. 1 (1996): 90–119.

²² Michael Howlett and Jeremy Rayner, "(Not so) 'Smart regulation'? Canadian shellfish aquaculture policy and the evolution of instrument choice for industrial development," *Marine Policy* 28 (2004): 179.

²³ Howlett, "Managing the 'Hollow State': Procedural Policy Instruments and Modern Governance," 424.

services in society. In focusing so intently on 'substantive' policy instruments, sight has been lost of the need, identified by early students of public policy, to take both the substance and process of policy-making into account when conducting policy analyses.... This has become a major problem in attempting to resolve the paradoxes of modern governance and find the appropriate methods and tools to steer the 'hollow state'.²⁴

In order for the instrument choice perspective to say anything meaningful about the procedural instruments, Howlett produces a theoretic model linking specific procedural instrument choices to specific choice influencing variables related to legitimacy. In the model, the government's rationale in using one type of procedural policy instrument rather than another is affected by the generalizability of the legitimation problems faced by governments at either the systemic or the sectoral levels.

As he put it:

As is well known, democratic states require the attainment of a minimum level of societal consensus supporting their actions. When a serious loss of legitimacy or trust occurs, the subject of political conflict often shifts from the actual substantive content of government actions towards a critique of the processes by which those actions are determined. This can occur at either the macro, or system-wide level or at the meso, or sectoral, level, but in either case, in order to construct or regain legitimacy, governments resort to the use of procedural instruments to alter network configurations.²⁵

Hence, the ultimate end of the model is to understand the ways in which specific levels of sectoral and systemic delegitimation match with particular procedural instruments.

Focussing on the independent variables - the choice influencing variables of sectoral and systemic delegitimation - the model purports to lay out an empirically testable theory intended to predict specific procedural instrument choices emerging from the legitimation

²⁴ Ibid., 424 – 425.

²⁵ Ibid., 423.

problems facing governments.²⁶ Yet, the value of Howlett's theoretical approach for procedural instrument choice can only be judged through empirical testing, and in terms of its practical value, by an assessment of its predictive utility in the policy process. Since Howlett derives the model of procedural instrument choice using the Canadian political context as the empirical backdrop, the objective of this paper is to pursue an empirical test using examples from the United States (U.S.).

Due to its prolific use by the U.S. federal government, particular attention is given to one specific procedural instrument: the creation of the federal advisory committees, and to determining whether the hypothesized delegitimation patterns set out by Howlett for this instrument empirically prevail prior to the inception of the committees.²⁷ Furthermore, Howlett and Jeremy Rayner's study of the Canadian environmental sector provides theoretical guidance as to what procedural instrument would be significant for study, as they suggest the advisory committee is the predominant procedural technique utilized by the Canadian federal government.²⁸ For example, they conclude that the

²⁶ See, David Beetham, *The Legitimation of Power* (Atlantic Highlands, NJ: Humanities Press International, 1991). For example, Beetham argues on p. 19 that "...if the public expression of consent contributes to the legitimacy of the powerful, then the withdrawal or refusal of consent will by the same token detract from it. Actions ranging from non-cooperation and passive resistance to open disobedience and militant opposition on the part of those qualified to give consent will in different measure erode legitimacy, and the larger the numbers involved, the greater the erosion will be. At this level, the opposite or negative of legitimacy can be called delegitimation."

²⁷ For example, in the 2004 US fiscal year, the federal government financed 965 active advisory committees with a membership of 65,425 participants, at a total cost of \$302,878,009.00. Please see, United States General Services Administration, "2004 Annual Comprehensive Review," [<http://www.fido.gov/facadatabase/acr.asp>], April 2005.

²⁸ Howlett and Rayner, "(Not so) 'Smart regulation'?: Canadian shellfish aquaculture policy and the evolution of instrument choice for industrial development," 171 – 184.

advisory committee deployment usually "...goes hand in hand with the traditional regulatory tools used for substantive purposes."²⁹

From the standpoint of the American context, numerous advisory committees exist at the federal level, yet little concern has been shown about their theoretical status, which has often remained vague.³⁰ In the last few years, reports by the U.S. National Research Council and the Presidential-Congressional Commission on Risk Assessment and Risk Management have identified the use of federal advisory committees as key mechanisms for improving public involvement and the public's trust in government.³¹ Yet in spite of calls for increased use, researchers have given insufficient attention to why tools such as the advisory committees are actually used by the federal government to engage the

²⁹ Ibid., 181.

³⁰ Leon Dion, "The Politics of Consultation," *Government and Opposition* 8, no. 3 (1973): 335; Deon, for example, denotes the function of advisory committee as integral legitimating mechanisms that profoundly influence major components of the political system. As he explains, the advisory committees are a way of mediating directly between ideologies, pressures, and social factors. By establishing official links between social factors and political factors, it aims at the normalization and democratization of relations between the different categories of agents. It encourages the expression and the reconciliation of oppositions which may spring up between them. It facilitates the search for agreement on objectives as well as the taking of decisions in common. Consultation consists, therefore, in the permanent or temporary setting up of a device (commission, council, committee) which can gather together social and political agents in a useful and democratic way, so that they can exchange views on questions of common interest, undertake research, formulate advice and take part in the definition of problems, in choosing the rules of the game, in laying down the common ends, and in a more or less complete way in the decisions which result from it.

³¹ See, National Research Council (NRC), *Understanding Risk: Informing Decisions in a Democratic Society* (Washington, DC: National Academy Press, 1996), 17-22; Presidential/Congressional Commission on Risk Assessment and Risk Management (PCRARM), *Framework for Environmental Health Risk Management Final Report Volume 1* (Washington, DC: National Academy Press, 1997). More generally, political scientists have called attention to the role of public involvement as a remedy to the public's declining trust in political institutions. See, for example, Robert D. Putnam, "Bowling Alone: America's Declining Social Capital," *Journal of Democracy* 6, no. 1 (1995): 65-78; Paul Slovic, "Perceived Risk, Trust, and Democracy," *Risk Analysis* 13, no. 6 (1993): 675-682; Steven P. Croley and William F. Funk, "The Federal Advisory Committee Act and Good Government," *The Yale Journal on Regulation* 14, no. 2 (1997): 451-557.

public. Particularly noteworthy is the lack of any systematic analysis regarding the institutional motivations as to why the government would resort to using these policy tools for policy legitimation.

Despite previous research dismissing the advisory committee as an epiphenomenon to official routes of politicking,³² the Howlett model provides a perspective from which to investigate the U.S. federal government's motivations for creating its advisory committees.³³ An empirically testable hypothesis can be derived from this model outlining why the government would rely on advisory committees in order to route socio-

³² Ibid., 332-353. For example, Dion argues the importance of advisory committees, "...as a socio-political mechanism, does not emerge in the writings of political scientists. Behaviouralists as well as institutionalists focus their theoretical models on the political parties, legislatures, and the pressure groups to explain the channeling of interests, ideologies, and stresses from the socio-economic system, into the political system. The former considers the advisory committees as a ancillary means of action for liberal democratic governments and interest groups, whereas the latter disregards these committees because they do not form part of the official channels of decision-making. However, the diversification of socio-economic organization and the growth of the political system have increased the number of decision-makers and intensified relations between social, economic, and political actors. Subsequently, parties and pressure groups are not enough in themselves to channel the various socio-economic actors into the political system.... Over the last fifty years, governments have been using the advisory committee as an alternative channel to manage intensifying state-societal interactions. So much has their importance grown in recent years that they must be considered as a mechanism for systemic interaction, comparable in weight to the parties or the pressure groups. The advisory committees have, in fact, become a major cog in the political system and any attempt to exclude them is doomed to failure."

³³ For works on advisory committees, see Frank Baumgartner and Beth Leech, *Basic Interests* (Princeton, NJ: Princeton University Press, 1998); Marie Hojnacki and David C. Kimball, "The Who and How of Organizations' Lobbying Strategies in Committee," *Journal of Politics* 61 (1999): 999-1024; Ronald G. Shaiko, "Reverse Lobbying: Interest Group Mobilization from the White House and the Hill," in *Interest Group Politics* 5th edition, eds. Allan J. Cigler and Burdett A. Loomis (Washington, DC: CQ Press, 1998), 255-282; John Mark Hansen, *Gaining Access: Congress and the Farm Lobby, 1919- 1981* (Chicago, IL: University of Chicago Press, 1991). These above previous studies on United States federal advisory committees in the policy making process have often focused on interest groups' efforts at lobbying Congressional members or these groups attempts at participating in federal advisory committees' activities during the implementation stages. Other scholars have discovered that governments use federal advisory committees to engage in 'reverse lobbying' by providing certain groups with access. These scholarly investigations into advisory committees have been of a descriptive-classificatory nature, leaving these theoretical assumptions implicit. For extensive empirical studies on the US federal advisory committee, see examples below.

economic actors into the political system. The model's competitive advantage derives from its theoretical transformation of the advisory committee now seen as a socio-political procedural mechanism which allows the government to engage the public during times of legitimation crises. As a result, the expectation would be of an empirically observable pattern of governments' deploying the advisory committees based on governmental authorities confronting prior legitimation problems.

To help frame the empirical analysis, Howlett's perspective on the procedural instruments is used to examine the structure of systemic and sectoral delegitimation on the United States (U.S.) federal government's choices in creating U.S. Department of Agriculture (U.S.D.A.) and U.S. Department of Transportation (D.o.T) advisory committees from 1997 to 2004. Specifically, the analysis is based on time-series data compiled from:

- (1) U.S. Presidential disapproval ratings as measured in Gallup polls;
- (2) the frequency of negative to positive mentions of the U.S.D.A. and the D.o.T. as reported within industry specific periodicals, and;
- (3) the frequency of U.S.D.A. and D.o.T. federal advisory committees created over the period 1997 to 2004.

In what follows, the analysis demonstrates the existence of conflicting empirical evidence undermining the model's postulates regarding the theoretic linkages between sectoral and systemic delegitimation and advisory committee creations. The evidence gathered in the American case suggests that several key assumptions behind the model must be altered to account for these findings.

The analysis proceeds as follows. Chapter Two introduces the intellectual context underpinning the Howlett model of procedural instrument choice. The chapter begins by

highlighting the theoretical impetus for studying these ‘second generation’ procedural policy instruments and outlines the theoretical assumptions behind the Howlett model. Chapter Three explains the methodology employed to test the model’s hypothesis surrounding why governments utilize advisory committees as a procedural policy instrument. Time series data using examples from the United States federal government are presented in this section. In Chapter Four, the cross correlation functions between various series are assessed to establish whether statistically significant covariations exist between these series. The final chapter provides conclusions from this application and test of the U.S. federal government’s experiences in creating advisory committees in the agriculture and transportation policy sectors.

2 LITERATURE REVIEW

2.1 The Intellectual Context of Procedural Policy Instruments

In an era when governments have widely devolved various responsibilities for policy implementation to civil society (non-governmental) institutions, procedural policy instruments have become essential elements in the modern tool kit of governments.³⁴ Brinton Milward and Keith Provan, for example, highlight three evolutionary hallmarks of the ‘hollowing-out’ of the contemporary western liberal-democratic state, which have resulted in governments increasingly relying upon these process tools. The first hallmark has been the marked degree of increased separation between the sourcing of public funds (government) and the usage of these funds by various non-governmental program service delivery agents. The second hallmark has been the evolution of complex networks of non-governmental service delivery providers jointly producing and providing traditional government services. The third hallmark that Milward and Provan highlight has been a shift in the public management paradigm, which has public administrators and managers

³⁴ See, Eric A. Nordlinger, *On the Autonomy of the Democratic State*. (Cambridge: Harvard University Press, 1981); and David L. Weimer, "The Craft of Policy Design: Can It Be More Than Art?" *Policy Studies Review* 11, no. 3/4: 370-388. For example, Weimer argues that the study of institutional choice as policy design draws attention to the selection of procedures and incentive systems to achieve substantive policy outcomes.

arranging service provision *networks* rather than managing (for example, with traditional substantive policy instruments) the operation of traditional, hierarchical bureaucracies.³⁵

In this network perspective or approach, the administrative options regarding decentralized policy-making and network steering move to the centre of policy analyses.³⁶ Since power in a networked society is theorized to be diffuse and the political-administrative system as being fragmented, the appreciation for procedural policy instruments becomes ever more prevalent, especially for those governments attempting to manage increasing state-to-society interactions.³⁷ The complex question of whether current governments can actually ‘steer’ through these intertwined networks between

³⁵ See, H. Brinton Milward and Keith G. Provan, “Governing the Hollow State,” *Journal of Public Administration Research and Theory* 10, no. 2 (2000): 359-379. For example, Milward and Provan highlight the school of thought giving emphasis to bringing in market discipline to the public sector through non traditional practices such as corporate – public partnerships intended to increase efficiency and bring down overall costs to the tax payer: New Public Management (NPM). See also, Sanford Borins, “Lessons from the New Public Management in Commonwealth Nations,” *International Public Management Journal* 1, no. 1 (1998): 37 – 44. Illustrating this paradigmatic approach to public administration, Sanford Borins describes NPM as having 5 essential components, of which each has evolved into the public sector through private sector rationales and management experiences: (1) Providing high quality services that citizens value; (2) Increasing managerial autonomy, by lessening central agency command and control; (3) Being more systematic in measuring and rewarding organizational and individual performance; (4) Encouraging and maintaining receptiveness to competition and being open minded and cognizant of what public services should be provided by public servants as opposed to private sector market participants, and; (5) Providing the human and technological resources for managers to fulfill their performance targets.

³⁶ For in-depth discussions regarding the theoretical concepts of network management, see Walter Kickert, “Complexity, Governance and Dynamics: Conceptual Explorations in Network Management,” in *Modern Governance: New Government – Society Interactions*, ed. Jan Kooiman (London: Sage Publications, 1993), 173 – 190; Johan A. de Bruijn and Ernst F. ten Heuvelhof, “Policy Networks and Governance,” in *Institutional Design*, ed. David L. Weimer (Boston: Kulwer Academic Publishers, 1995), 161 – 179; For a basic overview of the core theoretical tenets surrounding the study of policy networks, see Erik-Hans Klijn, “Policy Networks: An Overview,” in *Modern Governance: New Government – Society Interactions*, ed. Jan Kooiman (London: Sage Publications, 1997), 14 – 34.

³⁷ See Henning Jorgensen and Flemming Larsen, *The Blessings of Network Steering: Theoretical and Empirical Arguments for Coordination Concepts as Alternative to Policy Design* (Aalborg: Kopicentralen, 1997), 3 – 44.

state and civil society institutions is answerable through the governments' operational use of its procedural policy instruments. These distinct procedural tools give governments suitable options for manipulating and arranging the network(ed), state-to-society interactions.³⁸ Where governments are managing network steering functions, the government's procedural policy instruments:

...[are] inaugurated for the purpose of building or strengthening organizations in the hope that they will provide valuable support in the long run. A bureaucratic agency is built up and given instruments not in order to be immediately efficient in the substantive area, but to provide political support in the long run [for the government's formulated policy aims and initiatives- the steering]. Consequently, in political life, policy instruments may be embraced although they have little instrumental, substantive significance for the attainment of immediate policy goals.³⁹

J.A. de Bruijin and E.F. ten Heuvelhof, for example, have shifted their scholarly focus away from the actual *substance* of policy making to the implicit policy *processes* involved when conducting instrument analyses. Their theoretical research into procedural tools helps to conceptualize the 'paradoxes of modern governance,' which greatly impede

³⁸ Howlett, "Managing the 'Hollow State': Procedural Policy Instruments and Modern Governance," 212 – 216. See also, David Osborne and Ted Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector* (Mass: Addison – Wesley, 1992); and, John Braithwaite, "The New Regulatory State and the Transformation of Criminology," *British Journal of Criminology* 40 (2000): 222-23; Braithwaite, for example, succinctly describes the historical epochs characterizing the principal components espoused in governance reforms by using a seafaring metaphor borrowed from the works of Osborne and Gaebler, which distinguishes *steering* (setting policy, thinking, leading, directing, guiding) from *rowing* (implementing policy, enterprise, service provision).³⁸ Utilizing this metaphor, Braithwaite contends while nineteenth century governance consisted of a pattern where civil society did the steering and rowing in the political economy of the capitalist economy, the postwar State after 1945 took over both the rowing and steering functions. Consequently, the emergence of the hollow-pluralistic state represents a new division of labour between the post war state and civil society. Contemporary governance now involves the state being responsible for steering, while the necessary functions of service provision and enterprise have been redirected back to civil society.

³⁹ Vedung, "Policy Instruments: Typologies and Theories," 272.

governments from using only the set of substantive instruments in order to effectively steer the ‘hollow state.’ As they put it:

Instruments suitable for use in a network context are the so-called second-generation governance instruments, such as covenants, contracts, communicative planning, parameters and incentives. These instruments are suitable for dealing with the pluriformity, self-referentiality, interdependency and dynamics of networks.... One of the reasons why governance often proves so difficult is that traditional or ‘first generation’ instruments appropriate to a vertical structure are used in a context which is relatively horizontal. Such a horizontally structured context is most likely to be found in a situation in which the governing actor takes account of the options for network management. After all, an inability to govern effectively is one of the chief reasons for engaging in network management. In so far as instruments are suitable for use in network management, they will be second generation instruments.⁴⁰

de Bruijn and ten Heuvelhof emphasize a distinction between traditional, ‘first generation’ instruments incorporating the deployment of *substantive* policy tools over ‘second generation’ instruments dealing with *procedural* or *process* manipulations in policy-making. The two authors distinguish five families of second-generation instruments, those being multi-faceted instruments, incentives, indicators, instruments focused on persons and communicative instruments.⁴¹ The pivotal distinction between first and second-generation instruments resides on a theoretical undertone, wherein the traditional set of first generation, substantive policy instruments considered policy contexts and goals as given and immutable:

⁴⁰ Johan A. de Bruijn and Ernst F. ten Heuvelhof, “Instruments for Network Management,” in *Managing Complex Networks: Strategies for the Public Sector*, eds. Walter J.M. Kickert, Erick-Hans Klijn, and Joop F.M. Koppenjan (London: Sage Publications, 1997), 123.

⁴¹ Johan A. de Bruijn and Ernst F. ten Heuvelhof, “A Contextual Approach to Policy Instruments,” in *Public Policy Instruments: Evaluating the Tools of Public Administration*, eds. B. Guy Peters and Frans K.M. van Nispen (Northampton, MA, USA: Edward Elgar, 1998), 69-84.

[Substantive policy instruments] perform their function on the level on which governance is taking place, that is, the operational level.... On the operational level, governance assumes targets which are fixed, and is aimed at achieving these targets by influencing the behaviour of the actors to be governed in such a manner that it becomes more goal-driven. The governing actor brings governance instruments into play. These instruments are effective if they result in furthering the targets set. The second aspect relates to features of the field of influence within which the governing actor operates. *These features concern characteristics of the policy network, including the actors taking part in it and the relations between them. On the level of governance the characteristics of the network are considered invariable.*⁴²

The emerging set of second-generation policy instruments, on the other hand, involves variance along context, number and relations of policy actors involved, and policy goals. Governments can use these process instruments to indirectly achieve their policy aims by manipulating the participation and involvement of policy actors in the policy process. Furthermore, governments can facilitate or impede the flow of policy ideas necessary for achieving their policy initiatives by altering the behaviour of policy actors through the use of these process tools:

In a discussion of what is possible and what impossible for governance to achieve on the operational level, context plays an important role, since the nature of the context renders governance difficult or impossible, or, on the contrary, serves to facilitate it. Once it has been ascertained that governance is problematic, therefore, the next logical step is to explore the possibilities for changing the context and to do so in such a way that governance is facilitated. Interventions aimed at changing the context of governance are part of network management. This area of network management is the institutional level. Network management focuses on the characteristics of the policy network. The features of the context need to be such that they facilitate goal-seeking processes. This is the primary task of network management and involves its ability to modify the characteristics of the governance context in such a way that more options for governance on the operational level are created... Network management, namely, is aimed at creating conditions under which goal-oriented processes can take place. The question is whether and to what extent [procedural policy] instruments can be used both to influence goal-

⁴² De Bruijn and ten Heuvelhof, "Instruments for Network Management," 119.

oriented processes (governance) and to create the conditions which facilitate the mutual formation of targets (network management).⁴³

Hans TH. A. Bressers, Erik-Hans Klijn, W.J.M. Kickert, J.F.M. Koppenjan, and Robert K. Leik, have all argued on separate occasions that changing the context in such a way as to facilitate modern governance involve governments consciously being able to manipulate and vary the number and relationships of actors involved in policymaking. For these above scholars from the Rotterdam School of New Public Management, the focus is on ‘network’ management, where instead of using substantive instruments to ‘direct’ the economy, western industrialized governments are utilizing procedural instruments in order to ‘steer’ the economy.⁴⁴ As a result, the study of network management and procedural instruments rests on a set of assumptions. First, government and policy activities are assumed to take place in network structures, which result from the diversifying interactions of government and non-governmental policy participants.

⁴³ Ibid., 119-120.

⁴⁴ See, Hans TH. A. Bressers, “The Choice of Policy Instruments in Policy Networks,” in *Public Policy Instruments: Evaluating the Tools of Public Administration*, eds. B. Guy Peters and Frans K.M. van Nispen (Northampton, MA, USA: Edward Elgar, 1998), 85 – 105; See also, Walter Kickert, Erik-Hans Klijn, and J.F.M Koppenjan, “Introduction: A Management Perspective on Policy Networks,” in *Managing Complex Networks: Strategies for the Public Sector*, eds. Walter J.M. Kickert, Erick-Hans Klijn, and Joop F.M. Koppenjan (London: Sage Publications, 1997), 1 – 13; and Robert K. Leik, “New directions for network exchange theory: strategic manipulation of network linkages,” *Social Networks* 14, no. 3 (1992): 309 – 23. The emphasis one finds in these writings is a focus on policy design and the management of the procedural instruments that enable governments to manipulate the networks. In addition, the overarching thesis of modern governance and the rise of procedural instruments is that the globalization phenomenon and increasing democratization has led to increases in the density of state – societal interactions, and the bureaucratization of society due to well funded public sectors. As a result, network structures are argued to increase, thereby, reorganizing society and its relations to political institutions. The conclusion is. contemporary western liberal democracies can no longer control their environments as well as in the past. As a result, the governments are less able to directly affect the production and allocation of societal goods and services; that is, substantive instruments have become less effective over the years. For example, the institutional emergence of the World Trade Organization, European Union, and North American Free Trade Agreement have legally restrained and operationally limited governments from directly affecting goods and services markets.

Second, governments are no longer assumed to be superior to non-governmental network participants, but rather co-equals immersed in peer-to-peer negotiations and ‘collaborative’ partnerships to governance. Third, government presence allows for the manipulation of networks to make it more conducive for achieving governmental goals and avoiding conditions of policy failure. Thus, there are more instances of governments manipulating the policy process via networks. For example, Kickert argues that modern governance involves governments managing network structures.⁴⁵ Thus, governments utilize procedural instruments or techniques, which are designed to coordinate the activities of relevant network participants regarding specific policy problems emphasizing differing goals, within an existing network of political institutions.

2.2 The Howlett Model of Procedural Policy Instrument Choice

The apt metaphor of the ‘hollow state’ refers to a political-administrative phenomenon in which states have undergone a ‘hollowing out’ of their ‘core’ policy implementation institutions, as various functions and activities historically undertaken by governments have been contracted out or devolved to quasi or non-governmental organizations.⁴⁶ For Howlett, the result is that “...at the domestic level, modern societies have developed increasingly complex networks of intraorganizational actors whose

⁴⁵ Kickert, “Complexity, Governance and Dynamics: Conceptual Explorations in Network Management.”

⁴⁶ See H. Brinton Milward and Keith G. Provan, “The Hollow State: Private Provisions of Public Services,” in *Public Policy for Democracy*, eds. Helen Ingram and Steven Smith (Washington D.C.: Brookings Institute, 1993), 222-237; R.A.W. Rhodes, “The Hollowing out of the State: The Changing Nature of the Public Service in Britain,” *Political Quarterly* 65, no. 2 (1994): 138-151; Mike Marinetto, “Governing beyond the Centre: A Critique of the Anglo-Governance School,” *Political Studies* 51, no. 3 (2003): pp. 592-608; Stephen P. Osborne and Kate McLaughlin, “The New Public Management in Context,” in *New Public Management: Current Trends and Future Prospects*, eds. Kate McLaughlin, Stephen P. Osborne, and Ewan Ferlie (New York: Routledge, 2002), 7-14.

coordination and management are increasingly problematic...further deepening the network structure and character of contemporary life.”⁴⁷ Yet, coupled with the increasingly complex network interactions between state and civil society actors, western democratic governments and their diplomatic negotiators have also been conscious signatory participants into various international economic institutions, like the World Trade Organization (WTO), The European Union (EU), and The North American Free Trade Agreement (NAFTA). These various international regimes have legally restricted governments from future state interventions into various pre-negotiated goods, services, and capital investment market areas.⁴⁸ Consequently, the substantive policy instruments that governments have historically used to directly affect the goods and services’ markets are often less useful to governments than they once were.

In coming to terms with the challenges of the ‘hollowing out’ of the functions and activities traditionally undertaken by governments, Howlett argues that governments have increasingly come to rely upon procedural policy instruments “...to manipulate the number or nature of actors arrayed in the policy subsystems that policy makers face. Each category of instrument uses a specific resource in order to manipulate these aspects of a policy subsystem or network.”⁴⁹ Incorporating previous insights presented in Hood’s

⁴⁷ Howlett, “Managing the ‘Hollow State’: Procedural Policy Instruments and Modern Governance,” 413.

⁴⁸ See, Stephen McBride and John Shields, *Dismantling a Nation: The Transition to Corporate Rule in Canada* (Halifax: Fernwood Publishings, 1997); John Shields and B. Mitchell Evans, *Shrinking the State: Globalization and Public Administration “Reform”* (Halifax: Fernwood Publishings, 1998); See also, Philip G. Cerny, "International Finance and the Erosion of State Policy Capacity" in *Globalization and Public Policy*, ed. P. Gummert (Cheltenham: Edward Elgar, 1996), 83-104; and Wolfgang H. Reinicke, *Global Public Policy: Governing Without Government?* (Washington, D.C.: Brookings Institution, 1998).

⁴⁹ Howlett, “Managing the ‘Hollow State’: Procedural Policy Instruments and Modern Governance,” 9.

taxonomical work on first generation substantive policy instruments⁵⁰, Howlett conceptualizes the procedural policy tools as utilizing four generic governing resources available to governments, those resources being: (1) *Nodality* (or information); (2) *Authority*; (3) *Treasury*, and; (4) *Organization*.⁵¹ On the basis of this taxonomical scheme (popularly known as ‘N.A.T.O.’), Howlett formulates a model of procedural instrument choice by highlighting “...the extent to which existing subsystems need to be

⁵⁰ Hood, *The Tools of Government*, 4 - 8; In this particular taxonomical schema advocated by Christopher Hood, he argues by taking a policy instrument focus scholars can better make sense of the complexity that exists throughout government policy programmes by breaking down each of these programs into particular patterns of generic instruments. By doing such, this gives scholars additional comparative value when looking across jurisdictions by comparing not vast abstract programmes or ‘fields of activity’, but rather comparisons can be made in terms of combinations of these common, if not generic, tool sets composing these programmes. In addition to added comparative value in seeking patterns in policy instruments (in this case, substantive policy tools), it also attempts to mitigate much of the criticism arising from such schools of thought as Public Choice or neo-conservative economists, as governments can now tweak instrument patterns rather than pursuing whole hearted cutbacks or slashing of government policy programmes. As Hood puts it: “...having sense of the basic tools available to government helps us make sense of what seems at first sight to be the bewildering complexity of modern government’s operations. Look at government activities in terms of government’s many purposes or interests, and the list is endless. Look at those activities as the application of a relatively small set of basic tools, endlessly repeated in varying mixes, emphases and contexts, and the picture immediately becomes far easier to understand....This is just as well, for if government really had to design a completely new set of tools for each new subject in which it became interested it would require far greater powers of innovativeness and imagination that governments can in practice be expected to possess. As it is the same basic set of tools appears again and again as governments face up to ‘new’ problems, such as computer piracy, glue sniffing, micro light aircraft and hang gliders. Only the mixture varies. This means that if we can grasp the basics of government’s tool kit, we can make better sense of what ‘they’- government, officialdom, authority can do in any given case and what the problems they may face.”

⁵¹ Vedung, “Policy Instruments: Typologies and Theories,” 25. Vedung, for example, notes the minimalist approach involves the search for a relatively small number of generic instrument categories, preferably two or three categories, into which all available instrument scan be placed. On the other hand, the maximalist approach generates long lists of instruments, and little effort is made to place these instruments into small or larger groups.

manipulated in order to retain the political trust or legitimacy required for governments to govern.”⁵² This model of procedural instrument choice is illustrated below:

Figure 1 The Theoretic Model of Procedural Policy Instrument Choice

		<u>Level of systemic de legitimacy</u>	
		High	Low
Level of sectoral de legitimacy	High	Organizational Manipulation (D)	Treasury/funding manipulation (B)
	Low	Authoritative/recognition Manipulation (C)	Nodal/information Manipulation (A)

Based on Michael Howlett, “Managing the ‘Hollow State’: Procedural Policy Instruments and Modern Governance,” *Canadian Public Administration* 43 no. 4 (2001): p. 424.

Unpacking the logics intertwined in the model put forward by Howlett, we would expect governments to react to situational cues that were “...intimately tied to the extent to which existing processes and procedures are considered credible by policy actors.”⁵³ Furthermore, Howlett argues that governments would utilize a particular procedural tool based on the prior interaction of two key variables regarding levels of de-legitimation apparent at two distinct policy dimensions.⁵⁴ In this instance, the notion of de-legitimation would be synonymous with expressions and feelings of distrust amongst

⁵² Howlett, “Managing the ‘Hollow State’: Procedural Policy Instruments and Modern Governance,” 422.

⁵³ *Ibid.*, 421.

⁵⁴ *Ibid.*, 423.

policy actors. The first of these dimensions involves the level of distrust occurring amongst meso, or sectoral level policy actors – those who are involved and are familiar with the day-to-day functions of the policy sector.⁵⁵ The second dimension involves the level of distrust occurring between policy actors at the trans-sectoral, or systemic level.⁵⁶ The two variables explaining the government’s choice in procedural instruments involve levels of distrust apparent at two particular dimensions, one that is ‘internal’ to the policy sector under investigation, while the other involves levels of distrust ‘external’ to the policy sector. A formal equation is provided below illustrating the model’s hypothesized general relationship:

$$f[s] + f[S] = PI$$

Where $f[s]$ = the function of the sum of the levels of sectoral de-legitimacy, $f[S]$ = the function of the sum of the levels of systemic de-legitimacy, and PI = the government’s choice in procedural policy instrument.

The function of the procedural policy instruments – the nodal, treasury, authoritative or organizational process tools – is related to the extent to which governments would need to manipulate sectoral and systemic level memberships and interactions in order to garner the necessary levels of socio-political support buttressing

⁵⁵ Ibid.

⁵⁶ Ibid.

their policy initiatives.⁵⁷ Consequently, when legitimation problems are low in both the sectoral and systemic levels, governments would be expected to use ‘nodal’ process tools such as information provision and education campaigns to gently assuage sectoral and systemic level participants. On the other hand, governments that were facing high levels of delegitimation at the sectoral and systemic levels would be expected to use more intrusive ‘organizational’ procedural instruments such as institutional reforms in attempting to regain credibility and trust amongst policy participants. Governments encountering high levels of sectoral delegitimation with low levels of systemic delegitimation would use treasury process tools such as financial inducements to pressure groups. Lastly, governments confronted with low levels of sectoral delegitimation with high levels of systemic delegitimation would be expected to utilize authoritative process tools such as the advisory committee.

⁵⁷ The Howlett multivariate model presents us with two independent variables that are reputed to have causal association with governments’ choices in using particular procedural policy instruments, which in this case, is the model’s dependent variable. As argued by Howlett, these independent variables exist at two fundamental dimensions: (1) the levels of existing ‘sectoral’ de legitimation, which directly affects the extent of subsystem manipulation appropriate for the task of re legitimation, and; (2) the levels of existing ‘systemic’ de legitimation, which affects the capacity of governments to use existing networks to continue policy deliberations.

3 METHODOLOGY

3.1 The Methodological Design Phase⁵⁸

Howlett's model has been subjected to little, if any, empirical testing in order to verify whether the theoretical assumptions are valid. To test the model using examples from the U.S., the analysis focuses on the predominant tool utilized by networked governments to engage and coordinate the activities of network participants – the authoritative procedural policy instrument.⁵⁹ The operational aspect of these authoritative procedural instruments have governments manipulating specific institutional 'mechanisms' or 'levers' in order to give preferential recognition to particular policy actors.⁶⁰ In providing political recognition to specific policy participants, the government

⁵⁸ It is theoretically conceivable that governments deploy these process tools in various groupings, for example, coupling procedural tools with substantive tools, or even using these tools in particular temporal and sequential patterns. However, Howlett's model of procedural policy instrument choice is primarily aimed at explaining governments' choices in utilizing a certain process instrument over another. Past methodological study has also revealed that attempts at documenting 'mixed' policy instrument inventories for the empirical record are greatly impeded by the complexity of agency-program environments of modern governments and the jurisdictionally specific limits on disclosure of specific kinds of government activities and methods of presenting government data. Recognizing the existence of four generic procedural instruments – those being, *nodal*, *authoritative*, *treasury*, or *organizational* process tools – to empirically verify, this analysis quantitatively tests the theoretical rationales underpinning why governments choose 'authoritative' procedural policy instruments over the other procedural tools. For more on this, see Michael Howlett, Jonathan Kim, Paul Weaver, "Assessing Instrument Mixes Through Program/Agency Level Data: Methodological Issues in Contemporary Implementation Research," presented at The Ninth International Research Symposium on Public Management (IRSPM IX) (Milan, Italy: Bocconi University, 6–8 April 2005).

⁵⁹ Howlett and Rayner, "(Not so) 'Smart regulation'?: Canadian shellfish aquaculture policy and the evolution of instrument choice for industrial development," 181. For example, Howlett and Rayner have argued that advisory committee deployments are the predominant technique used by government. Moreover, they argue that advisory committees are often deployed as complement procedural policy instruments alongside the traditional regulatory tools used for substantive purposes.

⁶⁰ The same can be said in terms of governments being able to use these authority process tools to refuse an extension or invitation for policy actors to gain access into the policy process.

creates the advisory committees in order to facilitate actors who may not have hitherto been more than nominal participants in the policy making process.⁶¹ Michael Cardoza, for example, argues that the advisory committees are "...so powerful that they, in effect, constitute a 'fifth arm of government' on top of the legislative, executive, judicial and regulatory or administrative branches."⁶²

The advisory committees are unique institutional mechanisms that allow the U.S. federal government to obtain more in-depth understanding of its stakeholders' concerns and preferences than are available through other procedural means.⁶³ Often, advisory committees have given the government relatively inexpensive access to experts and stakeholders in order to achieve a number of social goals of public participation. In ideal circumstances, advisory committees provide the government with unbiased outside advice bolstered by public accountability. Essentially, they are public involvement mechanisms that are used by the government to engage the public during the policy process. They can provide an opportunity for government and non-governmental participants to join in the articulation of policy values and preferences. They can provide forums for reducing conflict among policy stakeholders and improving public involvement during the policy making process.

⁶¹ Howlett reserves these authoritative procedural instruments for situations where governments would exercise '*authority*' in order to manipulate policy processes and outcomes relating to the differential recognition of key actors in the policy community.

⁶² Michael Cardozo H., "The Federal Advisory Committee Act in Operation," *Administrative Law Review* 33, no. 1 (1981): 10

⁶³ Stephen P. Croley and William F. Funk, "The Federal Advisory Committee Act and Good Government," *The Yale Journal on Regulation* 14, no. 2 (1997): 451-557; Stephen P. Croley, "Practical Guidance on the Applicability of the Federal Advisory Committee Act," *Administrative Law Journal* 10 (1996): 111 – 132.

The U.S. provides an excellent source of advisory committee data that is easily accessible and well suited for pursuing a preliminary test of Howlett's hypothesis. Unlike Canada, which has no overarching legislative mechanism mandating its federal government to systematically compile and analyze data on its advisory committee activities, the U.S. President, under the Federal Advisory Committee Act (1972), is directly responsible for reporting on the activities of federal advisory committees to Congress for annual review.⁶⁴ Since 1997, the U.S. federal government has reported the activities of all its advisory committees through a centralized electronic database, which provides information on the creation and termination dates, roster membership lists, and financial status of the committees. This database was analyzed in order to discover the extent to which the federal government created advisory committees during 1997 to 2004 inclusive.⁶⁵

Howlett's model provides researchers with a simple and elegant hypothesis as to why governments would utilize advisory committee channels in order to facilitate systemic level actors into the political system. He readily identifies the empirical consequences when confronted by a situation in which sectoral delegitimation is low but systemic delegitimation is high, the government would then be expected to "... recognize

⁶⁴ Throughout the rest of this paper, it is assumed that 'federal advisory committee' refers to Federal Advisory Committee Act (FACA) chartered advisory committees, which are institutionally mandated and legislatively created by the U.S. President and the executive branch. There are some examples of non-FACA federal advisory committees, but these exceptions are not dealt with in this paper.

⁶⁵ Paul Sabatier has suggested that investigating instances of policy change and policy subsystem change requires scholars to examine specific policy sectors over at least a decade. Practically, the collection of data series on the creation of U.S. federal advisory committees was limited to the federal advisory committee database, which hampered efforts to encapsulate advisory committee creations for at least a decade period. See Paul Sabatier, eds., "Policy Change Over A Decade or More," in *Policy Change and Learning: An Advocacy Coalition Approach*, eds., P.A. Sabatier and H.C. Jenkins-Smith (Boulder: Westview, 1993), 13-40.

new actors or reorganize old ones through authoritative means such as the establishment of, for example, specialized quasi-independent advisory committees and inquiries that serve to distance sectoral policy processes from overall systemic legitimation concerns.”⁶⁶

The hypothesis regarding authoritative procedural instrument choice is highlighted in general form below:

$$f[sa] + f[sa] = PIa$$

Where $f[sa]$ = function of the sum of levels of sectoral de-legitimacy necessary for government to consider authority procedural instrument, $f[sa]$ = function of the sum of levels of systemic de-legitimacy necessary for authority procedural instrument deployment, and PIa = government’s choice in utilizing the authority procedural instrument: advisory committees.

In the logician’s parlance, the formal equation regarding authoritative procedural instrument choice is stated as:

Hypothesis 1: If levels of sectoral de legitimacy are *low* but levels of systemic de legitimacy are *high*, then governments would be expected to utilize an authoritative procedural instrument – the creation of an advisory committee.

The Null Hypothesis: The null is verified if the government either dismantles or does not create advisory committees when levels of sectoral de legitimation are low and levels of systemic de legitimation are high.

Using the time series data on the creation of U.S. federal advisory committee creations, the intention of this analysis is to devise a statistical test in order to determine whether the lagged independent variables’ causal effects are linked to the outcome

⁶⁶ Howlett, “Managing the ‘Hollow State’: Procedural Policy Instruments and Modern Governance,” 12.

dependent variable.⁶⁷ In this case, Howlett's arguments provides a perspective where we would expect to see empirical instances of advisory committee creations based on prior levels of sectoral and systemic delegitimation faced by the government. If Howlett's theoretical contentions about the creation of advisory committees are correct, we would expect the presence of statistically significant correlations between the input variables regarding low sectoral and high systemic delegitimation patterns and the output variable regarding the creation of federal advisory committees.

3.2 Case selection criteria

Four elements guided the choice of appropriate cases for the empirical test. First, although the model provides minimal guidance as to what policy areas would provide 'strong' cases to test, it does provide the logical inferences to investigate areas where governments have been contracting-out and devolving traditional governmental functions and activities to quasi-governmental or non governmental organizations. Thus, prime candidates for selection were policy sectors where the government attempts to steer networks of actors in a desired direction rather than directly managing the sector with traditional substantive policy instruments such as command-and-control regulatory measures. Second, given the potential for comparing the American case with results in

⁶⁷ Gary King, Robert Keohane, and Sydney Verba, *Designing Social Inquiry: Scientific Inference in Qualitative Research* (Princeton, N.J.: Princeton University Press, 1994), 79. In this regard, statistical tests for correlations attempt to address the "fundamental problem of causal inference." As Robert Keohane, Gary King and Sydney Verba explain, causal effects are counterfactual examinations discovering an independent variable's 'effect' on the dependent outcome variable. Since the social scientist is usually not afforded the luxury of experimental laboratory conditions, she is unable to re-run an experiment to discover the effects of changing the variance to the independent variable. Hence, the researcher is confronted with the problem of causal inference. In the attempt to overcome this problem, the researcher utilizes statistical methods of control in order to mimic laboratory conditions. By statistically controlling for all other factors except those variables under examination, the research is then able to discover what would happen (causal effect) if one variable's value had changed when all others are statistically controlled.

other similar countries, policy sectors prevalent across several countries were selected. Third, prime cases were policy sectors where the demarcations between the interests of the actors in the policy community versus the broader policy universe, that is, the wider systemic environment of policy actors outside the community, are relatively separate and defined.⁶⁸ Selecting policy sectors where the systemic versus are the sectoral dimensions are separate helps to ensure that the operationalized measures for the levels of sectoral delegitimation are distinct from the measures for systemic delegitimation. Thus, older, institutionalized policy sectors were selected to make sure that a specific sectoral, policy community exists, where business is transacted between participants already having mutual interests, needs, and expectations. Lastly, since the federal advisory committee database provides electronically accessible data from 1997 onward, the chosen cases encapsulate the same period as the time series on committee creations from 1997 to 2004.

3.3 The Operationalization Phase

The analysis was constructed by gathering time series data over an eight-year period, from 1997 to 2004, measuring the levels of sectoral delegitimation, the levels of systemic delegitimation, and the frequency of advisory committees creations in the U.S. federal agriculture and transportation policy communities. Using the U.S. case allows us to assess the robustness of Howlett's hypothesis for advisory committee creation, which was formulated initially in the Canadian political context.

⁶⁸ Grant Jordan, "Sub-governments, Policy Community and Networks," *Journal of Theoretical Politics* 2 (1990): 326. Grant Jordan, for example, remarks on the notion of the 'policy community'. The policy community idea therefore seems to rest firmly on the notion that the particular is processed in a context in which there is a recognition that there are, and will be in the future, other issues which also need to be dealt with. In a policy community a specific item of business is transacted in a context where the participants already have mutual needs, expectations, experiences.

The policy sectors of U.S. agriculture and transportation are argued to be exemplar cases where non-governmental organizations play a prevalent and prominent role when it comes to the policy implementation of U.S. governmental aims and initiatives. Moreover, the two sectors are an older, institutionalized subset of the American industrial sector containing well-defined and distinct policy communities. The U.S. agriculture sector, for example, is characterized as a tightly interconnected, and highly cohesive policy community, rather than a loosely, unorganized issue network. The U.S. agricultural policy sector, for example, is argued to have strong cohesion amongst diverse agricultural policy interests. Hans TH. A. Bressers and Laurence J. O'Toole Jr., for example, have commented on the existence of a cohesive policy community amongst U.S. agricultural policy actors: "Of course, a highly cohesive sector is next to impossible; Dutch environmental policy is unlikely to approximate the American agricultural 'iron triangle', because of the nature of the policy problem – which itself inevitably entails significant conflict between the parties' interests."⁶⁹ Although the articulations of US agricultural institutions have been historically diverse, the agriculture sector itself:

...has long been known for its close relationships between target groups (small farmers and agribusiness), the Department of Agriculture and its associated bureaus, and in fact various other organizations, including land-grant universities. Despite recent reductions in agricultural subsidies, the policy network continues to seem largely characterized as [strongly cohesive and strongly interconnected].... In the U.S. [agricultural policy sector] case, the interconnectedness is sufficiently strong that the sector is sometimes depicted by analysts as the one field in which U.S. policy making approximates a corporatist pattern.⁷⁰

⁶⁹ Hans TH. A. Bressers and Laurence J. O'Toole Jr., "The Selection of Policy Instruments: a Network-based Perspective," *Journal of Public Policy* 18, no. 3 (1998): 223.

⁷⁰ *Ibid.*, 222.

Since tightly networked structures tend to be viewed as impenetrable or impermeable to outside, non-participating policy actors and their interests, the case of U.S. agriculture provides opportunities for the federal government to create advisory committees in order to facilitate new network participants or reorganize old ones through authoritative procedural means. On the other hand, the case of U.S. transportation provides an example of a network not as integrated as the U.S. agriculture sector. The U.S. transportation sector, for example, covers multi-modes of transport, and has gone through significant deregulation. Since the U.S. transportation policy sector is more easily penetrable by systemic policy actors, the government's motivations for creating committees to route particular systemic actors into the transportation sector may not be as eminent during times of legitimation crises.

3.3.1 Operationalizing Levels of Sectoral Delegitimation in the U.S. Agriculture and U.S. Transportation Policy Sectors

Trade journals specific to U.S. agriculture and transportation industries were used to operationally measure the levels of sectoral delegitimation present over time in each of the two policy sectors. In a practical sense, the U.S. agriculture and transportation sectors were convenient for analysis because both industries are highly represented in the publication series of trade journals and periodicals. Mike Stuhlfaut, for example, in his study on the economic concentration of agricultural trade publications from 1993 to 2000 discovered the existence of over 200 journals suited to the agricultural policy community.⁷¹

⁷¹ Mark W. Stuhlfaut, "Economic Concentration in Agricultural Magazine Publishing: 1993-2002," *Journal of Media Economics* 18, no. 1 (2005): 21 – 33.

Lexis Nexus, a widely available electronic index containing various trade journal publications, was utilized to compile a list of U.S. agriculture and transportation trade journals published between 1997 to 2004. The results of this electronic gathering technique produced a truncated sample of trade journals provided through the Lexis Nexus database. The selection of electronically available trade journals was limited and could not be reliably verified as to whether the available selection was representative of a true sample from the population of existing trade periodicals. These concerns over the proper selection of sample trade journals could not be wholly mitigated or solved due to the limitations of electronically available materials. However, it was assumed that the selection of electronically available trade journals in these two policy sectors from a major source such as Lexis Nexus would accurately represent the respective values and interests of the U.S. agricultural and transportation policy communities.

By definition, trade journals are focused upon a particular industrial sector, or sub-sector. Trade journals, as opposed to academic or consumer journals, are specifically aimed at the business market, designed to serve and have an interactive relationship to the industry.⁷² Simon Mowat, for example, in his study investigating the economic impacts of trade journals presents a set of conceptual elements that trade journals should contain:

- (1) Have an interactive relationship with industry; that is to say that they are active in using the periodical in a direct way. This could be through advertising, recruitment, announcements, or direct editorial input.

⁷² Owen Whitten, "Review of Trade, Industrial, and Professional Periodicals of the United States," *Business History Review* 69, no 3 (1995): 458-461. Whitten, for example, highlights the role that trade journals have as primary and secondary sources when investigating industries: "To place any firm or industry into the larger framework of its times, recourse to the trade and professional literature is essential. Imagine writing about meat packing without consulting *The Packer*, ferrous metals sans *Iron Age*, highway construction without a look at *Contracting and Engineering*, or entertainment without *Variety*."

- (2) Reflect and direct developments within the industry; this could be by having industry specific news reporting, features, or by suggesting or managing lobbying campaigns.
- (3) Serve a specific trade, or sector.
- (4) Not be limited to a single company. Therefore, in-house newsletters and company journals are excluded.⁷³

The selection period from 1997 to 2004 helped to narrow down the potential trade journal sample, as the trade journals had to be fairly stable and operational for at least a seven-year period. Narrowing the selection of agricultural and transportation related trade journals, the analysis arrived at a list of five agricultural trade journals and seven transportation trade journals for analysis. The four agricultural journals were *Arable Farming*, *Corn and Soybean Digest*, *Dairy Farmer*, and *National Hog Farmer*. The four transportation journals were *Airline Business*, *Automotive News*, *Tire Business*, and *Advanced Transportation Technology*. Each of the agricultural sources was searched for keywords such as “U.S. Department of Agriculture” and “U.S.D.A.”, whereas the transportation sources were searched for the keywords “U.S. Department of Transportation” and “D.o.T”. A total of 652 relevant articles were discovered within the agricultural sources, and 354 articles within the transportation sources.

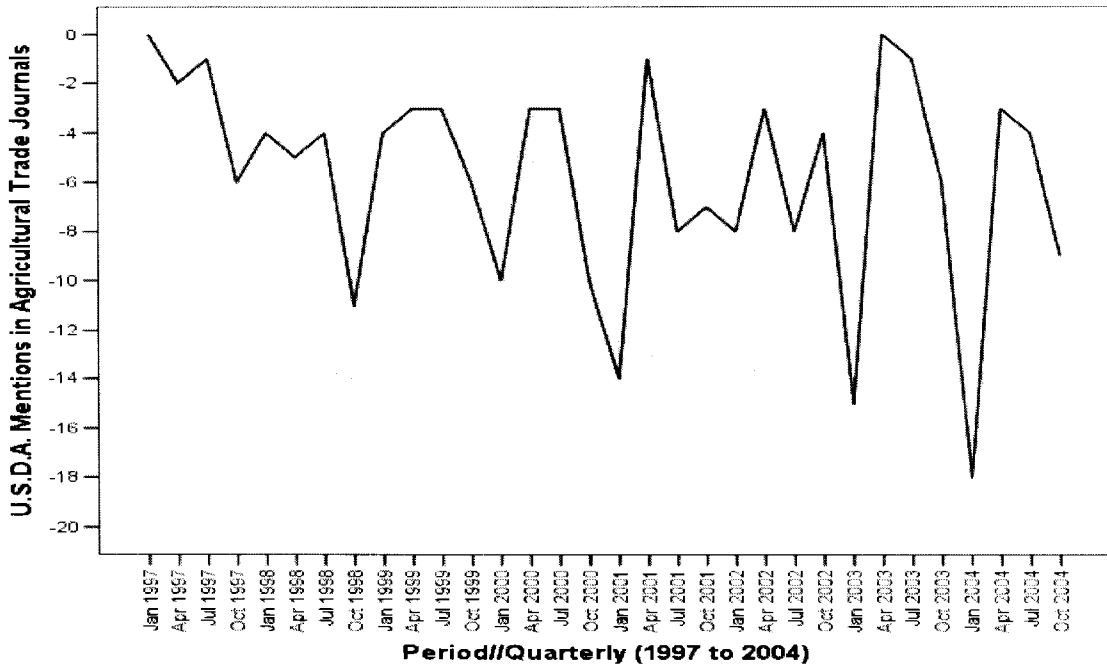
The articles from these trade journals were then coded as to whether the article appeared to take a negative, positive, or neutral position towards the U.S.D.A. or the D.o.T.. Classification of the articles was based on the title and main body of the article. Using these trade journal articles as a surrogate measure of the level of sectoral delegitimation, a negative position was coded as +1; a positive received –1; whereas a neutral position received 0. When articles happened to express both positive and negative

⁷³ Simon Mowat, “The Economic Function of Trade Journals: Evidence from the processed food sector,” *Global Business and Economics Review- Anthology 2000*: 388-402.

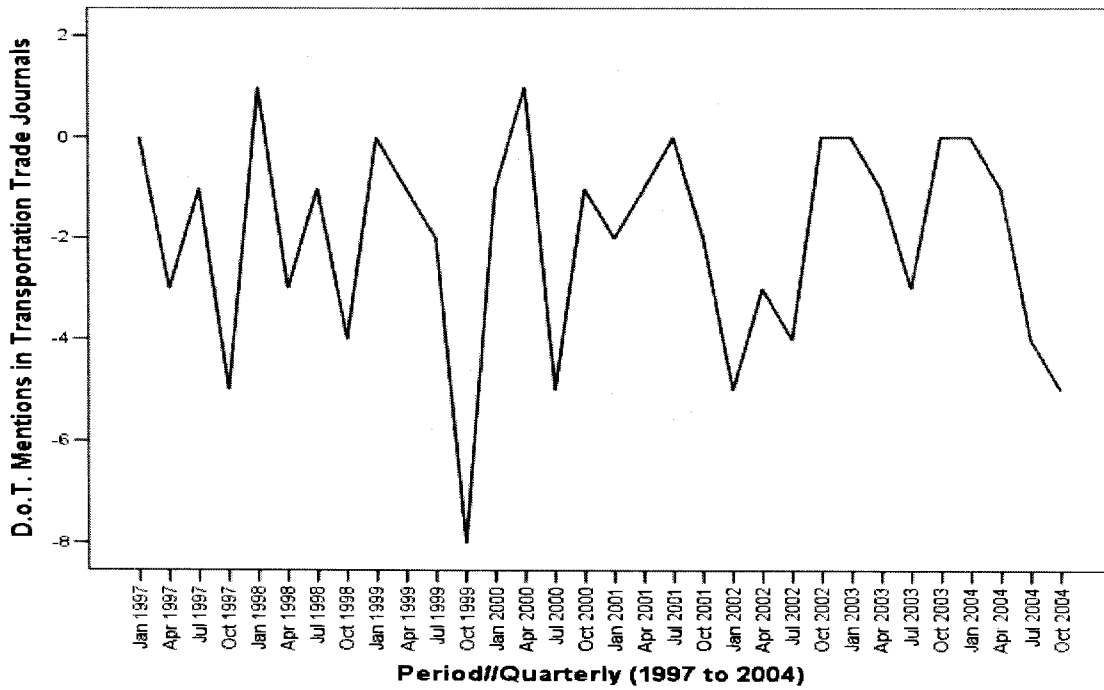
aspects to the U.S.D.A. or D.o.T., the article was coded as being neutral. These totals were then summed up into 3-month intervals over an 8-year period to provide 32 quarterly cases for the U.S agriculture and transportation sectors. Thus, observing increases from one period to the next indicates rising levels of sectoral delegitimation, whereas decreases indicate falling levels of sectoral delegitimation. The case plot data generated by the analyses of agriculture and transportation trade journals are contained in Figure 2(a) and 2(b) below:

Figure 2 U.S. Agricultural and Transportation Trade Journals: Mentions of 'U.S.D.A.' and 'D.o.T.'

a. U.S.D.A. Mentions:



b. D.o.T. Mentions:



3.3.2 Operationalizing Levels of Systemic Delegitimation in the U.S. Political System

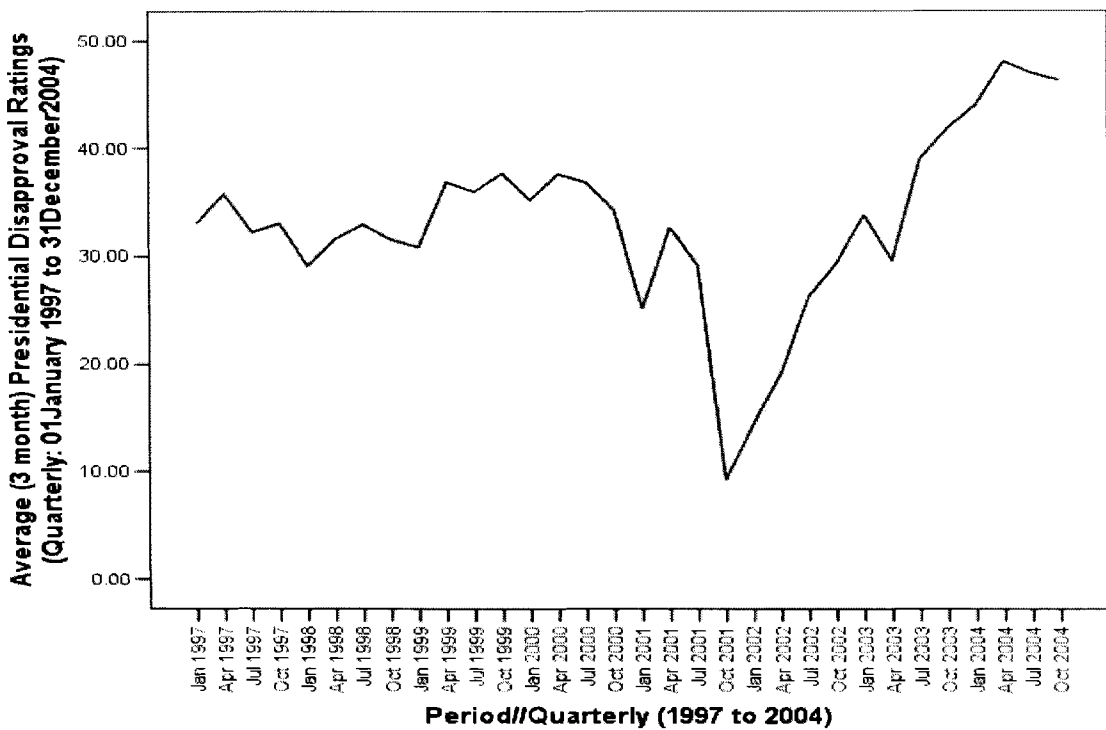
Since U.S. federal departments, such as the U.S.D.A. and D.o.T., and their respective advisory committees are institutionally responsible to the President rather than Congress, it is argued that Presidential job disapproval ratings provides appropriate indicators for U.S. systemic delegitimation patterns motivating the President's desires for creating departmental advisory committees.⁷⁴ Moreover, the federal advisory committees do not comport with a model of popular grass roots participation since they are decidedly 'top down' organizations. The advisory committees of interest to this project are ones that have been chartered and established under the authority of federal laws by the President through an executive agency such as the U.S.D.A. or the D.o.T.. Thus, public polling statistics measuring 'U.S. Presidential disapproval ratings' from 1997 to 2004 as published in Gallup polls were utilized in order to operationally measure the level of systemic delegitimation in the U.S. political system.

The survey question in these Gallup polls appeared as: "*Do you approve or disapprove of the way (Bill Clinton /or George Bush, jr.) is handling his job as president?*" The Presidential disapproval ratings were measured as the percentage of those who disapproved in response to the question. There were 131 polling observations during Clinton's (1997-2000) term and 153 observations for Bush's (2001-2004) term.

⁷⁴ Matthew C. Woessner, "Scandal, Elites, and Presidential Popularity: Considering the importance of cues in public support of the President," *Presidential Studies Quarterly* 35, no. 1 (2005): 94 – 115; Robert Y. Shapiro and Bruce M. Conforto, "Presidential Performance the Economy, and the Public's Evaluation of Economic Conditions," *The Journal of Politics* 42, no. 1 (Feb., 1980): 49-67; James A. Stimson, "Public Support for American Presidents: A Cyclical Model," *Public Opinion Quarterly* 40, (1975): 1 – 21; Richard A. Brody and Benjamin I. Page, "The Impact of Events on Presidential Popularity: The Johnson and Nixon Administrations," in *Perspectives on the Presidency*, ed. Aaron Wildavsky (Boston: Little, Brown and Company, 1975), 138 – 148.

These percentages were then averaged into 3-month intervals over an 8-year period, providing 32 quarterly cases operationally measuring ‘snapshots’ into the levels of systemic delegitimation in the U.S. political system.⁷⁵ The resulting 32 quarterly cases generated by the analysis of U.S. Presidential job disapproval ratings are shown in Figure 3 below:

Figure 3 U.S. Presidential Job Disapproval Ratings

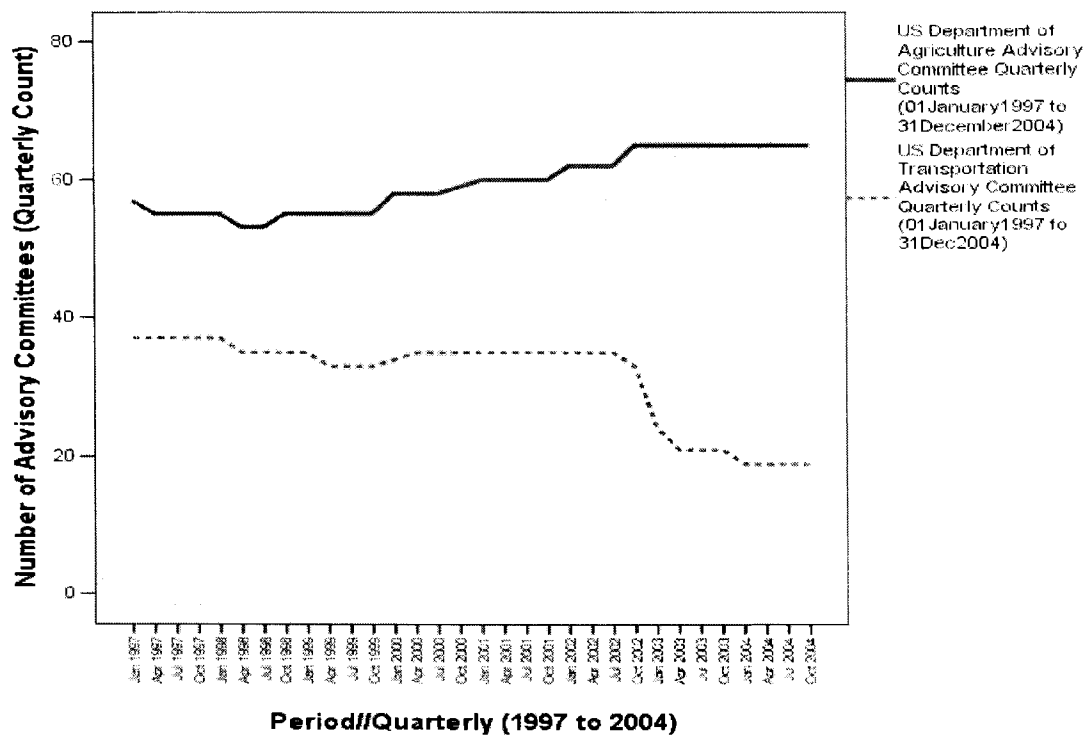


⁷⁵ What we would expect here is a minimal shorting in the observed lag occurring between the levels of systemic delegitimation and the government’s deployment in advisory committees since polling organizations take time to collect, publish, and disseminate polling data. Yet, this observed lag would be minimal since electronic media technologies have enabled polling firms to release analyzed data the day of collection.

3.3.3 Operationalizing the Frequency of U.S.D.A. and D.o.T. Advisory Committee Creations

The series on the hypothesized dependent variable was compiled using the U.S. Federal Advisory Committee electronic database.⁷⁶ The database was analyzed in order to discover the extent to which the U.S. federal government utilized U.S.D.A. and D.o.T. advisory committees during 1997 to 2004 inclusive. The frequency counts for existing federal departments' advisory committees were coded into 32 quarterly periods over 8 years. The resulting case plots for the U.S.D.A. and D.o.T. advisory committees are contained in Figure 4(a) and 4(b) below:

Figure 4 U.S.D.A. and D.o.T Advisory Committee Quarterly Count

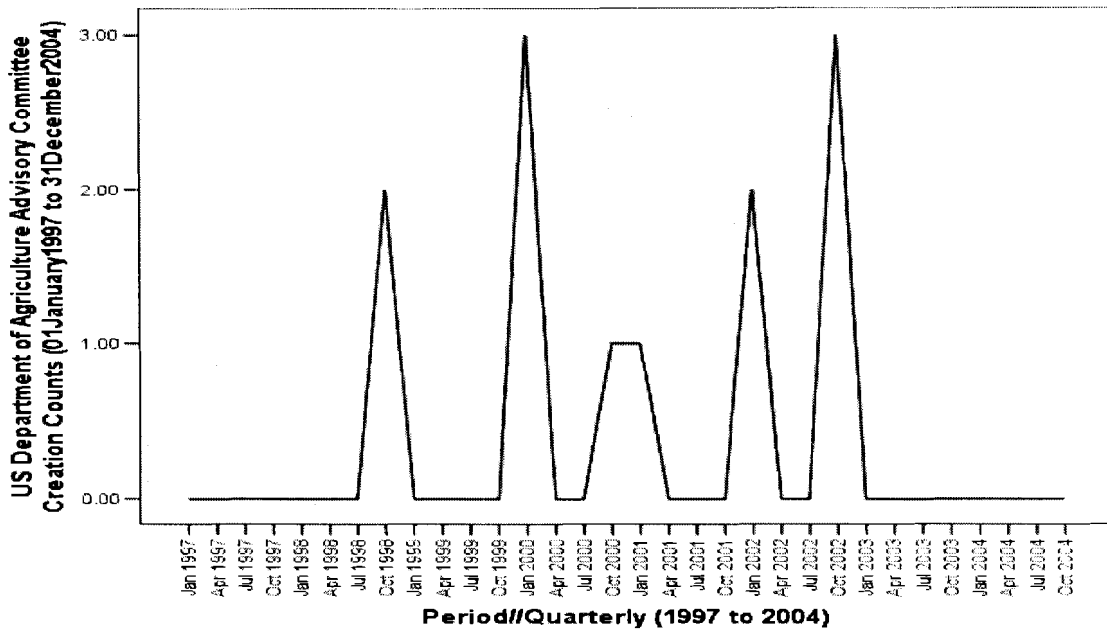


⁷⁶ Moreover, the F.A.C. database is a specialized, U.S. Federal Government, interagency, information-sharing database available publicly on the World Wide Web. See, <http://www.fido.gov/facadatabase/>

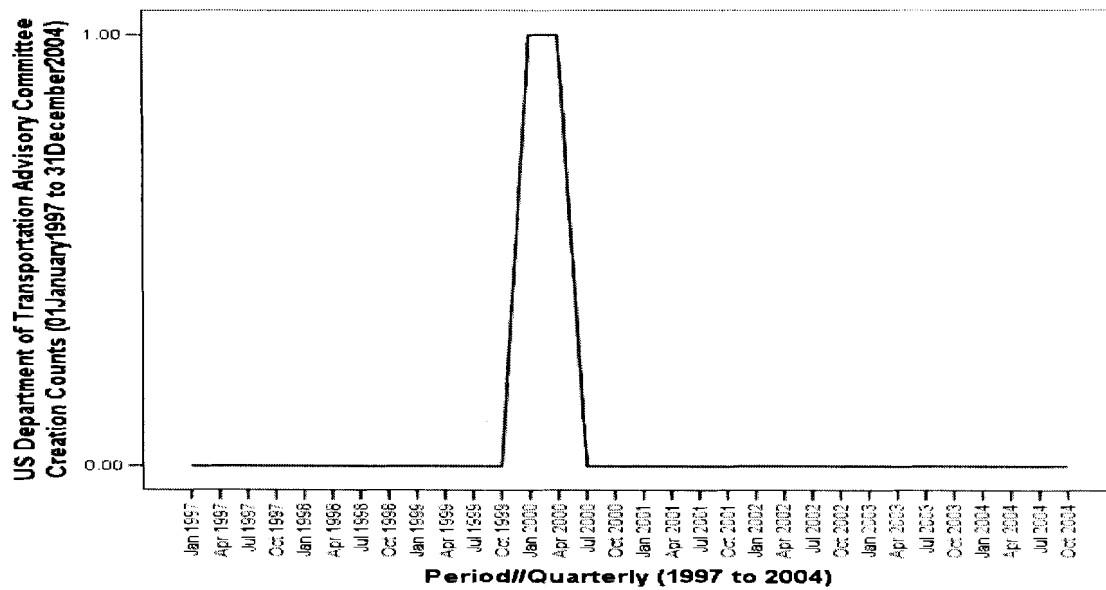
In order to better reflect advisory committee creation for each quarterly period, only the actual count of new advisory committees created was recorded; otherwise, if committees either remained stable or were terminated, it then received a score of '0'. For example, if new 3 committees were created from one quarter to the next, it was coded as '3', whereas if no committees were created or some were terminated, it was then coded as '0'. Thus, for each quarterly period, a record of the actual number of advisory committees created was documented as ratio level data, comparable with the other data series cited above. Subsequently, the advisory committee creation counts for the U.S.D.A. and D.o.T were coded into 32 quarterly periods (three-month intervals) over the 8-year period. The subsequent case plots for the U.S.D.A and D.o.T advisory committees are contained in Figure 5(a) and 5(b) below:

Figure 5 Case plot data for U.S.D.A. and D.o.T. Advisory Committee Creation

a. U.S.D.A. Advisory Committee Creation Count



b. D.o.T. Advisory Committee Creation Count



3.4 The Diagnostic Phase: Making the Data Series Stationary

The next step was to discover whether the series cited above varied periodically. Specifically, what we are attempting to discover is the extent these series exhibit seasonal, periodic, and cyclical patterns. To do this, the autocorrelation function (ACF) and partial correlation function (PACF) were used to discover if the series violated crucial assumptions in ordinary least squares (OLS).⁷⁷

Time series analysis is more appropriate for data with autocorrelations than techniques such as multiple regression for two reasons. First, is the explicit violation of the assumption of independence of errors found in non-time series procedures such as OLS. Usually, time series data contains errors that are correlated due to the patterns over time. The second reason is that the patterns may either obscure or spuriously enhance the effects of an intervening variable unless accounted for in the model. Consequently, it is an important methodological step to first diagnosis the series to discover and recognize autocorrelation.

Relying on the SPSS 13.0 statistical program, the purpose was to separately diagnose the independent variables via the ACFs and PACFs.⁷⁸ Referring to Howlett's model of procedural instrument choice, these independent variables are listed:

- (1) The levels of systemic delegitimation (operationally measured through U.S. Presidential job disapproval ratings);

⁷⁷ Harold D. Clarke, Helmut Norpoth, and Paul Whiteley, "It's about time: Modelling political and social dynamics," in *Research Strategies in the Social Sciences: A Guide to New Approaches*, eds. Elinor Scarbrough and Eric Tanenbaum (Oxford: Oxford University Press, 1998), 127 – 155.; Chris Chatfield, *Analysis of Time Series: An Introduction* (London: Chapman and Hall, 1996), 137- 140.

⁷⁸ *SPSS Trends 13.0*, (Chicago: SPSS Inc., 2004). Please see, [<http://www.csc.um.edu.mt/courses/spss/manuals/SPSS%20Trends%2013.0.pdf>].

(2) the levels of sectoral delegitimation in U.S. agricultural policy sector (measured by using agricultural trade articles); and,

(3) the levels of sectoral delegitimation in the U.S. transportation policy sector (measured by using transportation trade articles)

A standard summary test with a chi-square distribution known as the Ljung-Box Q test was used to reveal the extent of autocorrelations present in the data series for each of the above independent variables. The Q-test statistic was calculated using the SPSS 13.0 ACF, which analyzed the extent of auto and partial correlations present in the data series over several time lags. Interpreting the Q-test statistic as revealing significant residual autocorrelations hints at the presence of autoregressive or moving average components that must be specified to provide an adequate model for the dynamic of the time series. Hence, a statistically significant Q is a bad sign for the model being estimated. It should compel us to reject that model and specify an alternative, typically a more comprehensive one. In contrast, an insignificant Q affirms that the model as specified is adequate. In other words, a non-significant Q statistic in these tests indicates that the time series has been reduced to white noise. Based on the first sixteen autocorrelations, the Q-test revealed significant residual autocorrelations present in all the diagnosed series except for the series regarding D.o.T. mentions in transportation trade journals. Tables 1(a) and 1(b) below reveals the presence of the autocorrelation present in the series data.

Table 1 OLS Diagnostics- ACF/PACF of Independent Variables

a. Sectoral Delegation: U.S.D.A. and D.o.T. Mentions in Trade Journals

Lag	U.S.D.A. Mentions in Agricultural Trade Journals Series			D.o.T. Mentions in Transportation Trade Journals Series		
	Autocorrelation	Std. Error	Box-Ljung Statistic	Autocorrelation	Std. Error	Box-Ljung Statistic
1	-.117	.169	.488	-.092	.169	.583
2	-.214	.166	.343	-.069	.166	.795
3	-.115	.164	.469	-.184	.163	.658
4	.491	.162	.021	-.041	.163	.779
5	-.103	.158	.031	.091	.158	.839
6	-.054	.157	.054	.044	.155	.905
7	-.200	.152	.048	-.232	.154	.724
8	.287	.149	.022	-.112	.152	.752
9	.169	.147	.023	.062	.142	.815
10	-.217	.139	.022	.025	.147	.874
11	-.171	.139	.017	.198	.139	.774
12	.268	.136	.008	-.132	.135	.765
13	.118	.142	.015	-.116	.132	.771
14	-.318	.129	.002	-.186	.129	.673
15	-.071	.125	.003	.097	.122	.696
16	.066	.124	.005	-.051	.121	.749

b. Systemic Delegation: U.S. Presidential Job Disapproval Series

Lag	U.S. Presidential Job Disapproval Ratings Series		
	Autocorrelation	Std. Error	Box-Ljung Statistic
1	.752	.169	.000
2	.533	.166	.000
3	.356	.163	.000
4	.158	.160	.000
5	-.066	.158	.000
6	-.238	.155	.000
7	-.383	.152	.000
8	-.472	.149	.000
9	-.491	.145	.000
10	-.513	.142	.000
11	-.361	.139	.000
12	-.188	.136	.000
13	-.029	.132	.000
14	.031	.129	.000
15	.081	.125	.000
16	.139	.121	.000

Since the diagnosis stage revealed significant autocorrelations in several of the series, the case plot data were subjected to evaluation using Box-Jenkins ARIMA (autoregressive, integrated, moving average) procedures in order to pre-whiten the two violating series.⁷⁹ The intention of the analysis is to discover statistically significant covariance between the general patterns of sectoral and systemic delegitimation in the U.S. political system and the creation of federal advisory committees by government. Following the methodological steps suggested by Harold Clarke *et al.* research on modelling political and social dynamics, the transfer function approach to producing statistical cross-correlations was used for the empirical test.⁸⁰ For these purposes, Clarke *et al.* argues for the removal of the ARIMA dynamic inherent in the exogenous time series in order to control for the dynamic in the independent variables series.

In order to compute the cross correlations between the series on delegitimation levels and advisory committee creations, the ARIMA function for each of the independent variables were identified and then estimated. The same ARIMA model that was separately applied to each of the independent variable series was then transferred onto the dependent variables series. According to Clarke *et al.*, time series purged in this manner provide useable clues about the possible causal relationships between the various series of interest. They argue that such cross correlations speak to the nature of the relationship between the variables without the confounding effect of autocorrelations,

⁷⁹ Harold D. Clarke, Helmut Norpoth, and Paul Whiteley, "It's about time: Modelling political and social dynamics," 137 - 143; George Box, Gwilym M Jenkins, and Gregory Reinsel, *Time Series Analysis: Forecasting and Control* 3rd Edition (Englewood Cliffs, New Jersey: Prentice Hall, 1994).

⁸⁰ Clarke et. al., "It's about time: Modelling political and social dynamics," 129- 143.

which would violate the statistical assumptions and severely hamper typical OLS methods.⁸¹

On the basis of the ARIMA estimations for each of the independent variable series, it was concluded that the series containing data on U.S.D.A mentions in agricultural trade journals was an ARIMA (1,1,4), whereas the independent variable series on D.o.T mentions in transportation trade journals was an ARIMA (0,0,0). The series containing data on the independent variable for presidential job disapproval ratings approximated an ARIMA (0,1,0).⁸²

The transformed independent variables were again subjected to ACFs and PACFs and the series were confirmed as being stationary and purged of external forces initially affecting the untransformed series. The Ljung-Box Q-tests affirmed the specified ARIMA models as adequate and comprehensive since all of the auto-correlations were found to be non-significant along the first sixteen autocorrelations. Below, Tables 2(a) and 2(b) reveals the Q-test for the each of the transformed independent variables:

⁸¹ Barbara Tabachnick and Linda S. Fidell, *Using Multivariate Statistics*, 4th Edition (Boston: Ally and Bacon, 2000), 837 – 885.

⁸² Having the ACFs and PACFs of the various independent variables analyzed, the ARIMA models were identified by matching the obtained ACF and PACF plots with idealized patterns. The best match usually indicates which of the AR, I, or MA parameters need to be included in the model, and at what size (0,1,2,3...). The ‘AR’ (auto-regressive) element represents the lingering effects of preceding scores. The ‘I’ (integrated) element represents trends in the data, whereas the ‘MA’ (moving average) represents the lingering effects of preceding random shocks. For each of the independent variables, a first best guest was made on the basis of the ACF and PACF pattern and then, if the model fit the data poorly, another similar variation of the model was tried out until the diagnostic phase was satisfactory via the Box-Ljung Q-test statistic. See, Tabachnick and Linda S. Fidell, *Using Multivariate Statistics*, 4th Edition, 878-881. Also, see <http://www.xycoon.com/identification.htm> for idealized ACF and PACF patterns, which were used to identify the ARIMA models.

Table 2 OLS Diagnostics for ARIMA Transformed Independent Variables

a. Sectoral Delegitimation: U.S.D.A. and D.o.T. Mentions in Trade Journals

Lag	U.S.D.A. Mentions in Agricultural Trade Journals Series			D.o.T. Mentions in Transportation Trade Journals Series		
	Autocorrelation	Std. Error	Box-Ljung Statistic	Autocorrelation	Std. Error	Box-Ljung Statistic
1	-.099	.171	.564	-.092	.169	.585
2	-.123	.166	.649	-.067	.166	.795
3	.161	.164	.621	-.185	.164	.642
4	.292	.162	.286	-.041	.161	.785
5	-.022	.161	.414	.089	.159	.841
6	-.017	.156	.539	.046	.153	.912
7	-.144	.153	.548	-.235	.154	.724
8	.119	.151	.588	-.107	.151	.754
9	.174	.148	.539	.063	.144	.812
10	-.242	.142	.381	.031	.143	.875
11	-.138	.140	.385	.196	.141	.776
12	.276	.136	.196	-.133	.137	.764
13	-.007	.133	.254	-.117	.135	.769
14	-.243	.129	.148	-.186	.129	.673
15	.015	.125	.193	.097	.124	.698
16	-.037	.121	.241	-.054	.121	.746

b. Systemic Delegitimation: U.S. Presidential Job Disapproval Series

Lag	U.S. Presidential Job Disapproval Ratings Series		
	Autocorrelation	Std. Error	Box-Ljung Statistic
1	-.083	.171	.627
2	-.126	.168	.672
3	.102	.165	.759
4	.086	.162	.835
5	-.089	.159	.880
6	.073	.156	.921
7	-.200	.153	.814
8	-.104	.150	.841
9	.053	.147	.890
10	-.309	.143	.535
11	.025	.140	.622
12	.119	.136	.636
13	-.047	.133	.703
14	-.028	.129	.767
15	.087	.125	.792
16	-.019	.121	.842

3.5 Initiating the Statistical Test: ARIMA Transfer Function to Dependent Variable (Advisory Committee Creation Series)

Following the statistical procedures set out by Clarke *et al.*, this analysis pursued the application of SPSS 13.0 ARIMA models in order to purge autocorrelations from the various independent variable series.⁸³ As a result, the independent variables from both the U.S.D.A. and D.o.T. trade journal mentions series, and the U.S. Presidential job disapproval ratings series were made stationary; thereby, displaying no presence of trend.

Given the application of the ARIMA procedures, the series from each of the independent variables were transferred and fitted to the relevant dependent variables. Since the same, statistical procedure was applied to the time series data from the agriculture and transportation sectors, the discussion below focuses on the U.S.D.A. case and describes how the transfer function was applied to the U.S.D.A. advisory committee creations series. Moreover, the following discussion highlights two overarching statistical procedures used to initiate the cross correlation analyses between the respective independent and dependent variables.

First, tests were undertaken to look for the presence of statistically significant bi-variate correlations between sectoral delegitimation and advisory committee creations or between systemic delegitimation and advisory committee creations. Here, the purpose is to examine the statistical correlations between each of the model's independent variables (sectoral or systemic delegitimation) and the dependent variable (advisory committee creation). To do this, the ARIMA work done for the U.S.D.A. trade journal mentions series (ARIMA 1,1,4) and the presidential job disapproval rating series (ARIMA 0,1,0) produced separate 'FIT' and 'ERROR' scores for each of the

⁸³ Clarke et al., "It's about time: Modelling political and social dynamics," 129- 143.

independent variables. In this case, FIT is defined as the stationary scores for each independent variable (i.e., sectoral delegitimation or systemic delegitimation), whereas ERROR is the remaining adjustment made to each of the original independent variables. For example:

$$\mathbf{FIT + ERROR = Original, un-whitened independent variable}$$

(prior to application of the ARIMA model).

Following Clarke *et al.*, the transfer function smoothed dependent variable was created by subtracting each of the ARIMA transformed independent variables' ERROR scores from the original, dependent variable measuring U.S.D.A. advisory committee creations at each quarterly period (32 periods in total).⁸⁴ Since there are two independent variables, the ERROR scores from the U.S.D.A. trade journal mentions series were separately subtracted from the original scores of the dependent variable measuring U.S.D.A. advisory committee creations, whereas the ERROR scores from the U.S. Presidential job disapproval ratings series were separately subtracted from the original scores of the dependent variable. This is in line with the logic:

$$\mathbf{Original, starting dependent variable - ERROR_{independent variable} = FIT_{dependent variable}}$$

Thus, the first set of cross correlation coefficients are between the transfer FIT scores of U.S.D.A. advisory committee creation series versus the FIT scores of U.S.D.A. trade journal mention series, whereas the second set of cross correlations are between the transfer FIT scores of U.S.D.A. advisory committee creations series versus the FIT scores of U.S. Presidential job disapproval rating series. These same statistical procedures were repeated for the D.o.T. advisory committee creation series.

⁸⁴ Ibid.

The second overarching statistical procedure involved the creation of an ‘interactive’ independent variable. In Howlett’s model of procedural policy instrument choice, the government’s motivations for creating the advisory committees is premised on the interaction of sectoral and systemic delegitimation patterns. Thus, to test for this effect, an ‘interactive’ independent variable was created from the sectoral and systemic delegitimation variables. Here, the goal is to discover statistically significant correlations existing between this newly created interactive variable (independent variable) and advisory committee creations (dependent variable) in the two sectors under examination.

Again, the SPSS ARIMA work done for the U.S.D.A. trade journal mentions series (ARIMA 1,1,4) and the presidential job disapproval rating series (ARIMA 0,1,0) produced separate FIT and ERROR scores for each initial independent variable that was estimated. The FIT and ERROR scores of the sectoral and systemic variables were then multiplied together. For example:

$$\mathbf{FIT}_{\text{systemic}} \times \mathbf{FIT}_{\text{sector}} = \mathbf{FIT}_{\text{interact variable}}$$

$$\mathbf{ERROR}_{\text{system}} \times \mathbf{ERROR}_{\text{sector}} = \mathbf{ERROR}_{\text{interactvariable}}$$

The ERROR term of the interactive independent variable was then transferred over to the dependent variable regarding U.S.D.A. advisory committee creations. To do this, the ERROR scores of the interactive variable were subtracted from the original dependent variable scores. This produced the fitted dependent variable:

$$\mathbf{Original, starting dependent variable} - \mathbf{ERROR}_{\text{interactive variable}} = \mathbf{FIT}_{\text{dependent variable}}$$

Thereafter, the cross correlation coefficients were produced between the $\mathbf{FIT}_{\text{dependent}}$ variable and the $\mathbf{FIT}_{\text{interactvariable}}$. Similar procedures were applied to the D.o.T. advisory committee creations series.

4 DATA ANALYSIS

Howlett's hypothesis on advisory committee creations provides us with a scientifically inferred perspective from which to test the sectoral and systemic delegitimation variables' causal effects. Here, we would expect the frequencies of 'low' sectoral delegitimation and 'high' systemic delegitimation to be statistically significant when cross-correlated with the frequencies of advisory committee creation in each sector.

Two separate statistical tests were undertaken in order to empirically verify Howlett's hypothesis regarding the linkages between the legitimation problems facing government and advisory committee creations. The first battery of tests involves bi-variate analyses, where each of the ARIMA purged independent variables was separately cross-correlated with the respective transferred dependent variable. The tables presented below statistically examine the non-interactive causal effects the sectoral and systemic delegitimation levels may have on the government's motivations in creating advisory committees.

The second battery of tests consists of cross correlations between the "interactive" delegitimation variable and the respective transferred dependent variable (i.e. U.S.D.A. or D.o.T. committee creations series). These tests analyze if 'societal' factors related to both

‘low’ levels of sectoral and ‘high’ levels of systemic delegitimation taken together are driving the government’s motivations to create advisory committees,⁸⁵

The tables and graphical plots below display correlations at both negative and positive lags. To interpret the cross correlation functions (CCFs) of the various series, a negative lag indicates that the first series specified follows the second series. On the other hand, a positive lag indicates that the first series leads the second series.

4.1 Section One: Bivariate Analysis of Non-Interactive Variables

4.1.1 A. Non- Interactive Sectoral Delegitimation Variable versus (vs.) Advisory Committee Creation

Cross Correlations: U.S.D.A. Advisory Committee Creations (vs.) U.S.D.A. Mentions in Trade Journals

Table 3 below contains the CCFs estimated for the U.S.D.A. committee series and the U.S.D.A. trade journal series were estimated. Here, Howlett’s hypothesis is that the levels of sectoral delegitimation would be ‘low’ prior to governments creating the advisory committees. If Howlett were correct, we would expect a statistically significant negative correlation between the U.S.D.A. committee creation series and U.S.D.A. trade journal series, with a negative lag of at least 1-period (i.e. 3 months) to exist between the committee creation series and the trade journal series. It is important to note that the documents from these trade journals act as surrogate measures for the levels of sectoral

⁸⁵ Roger C. Cramton, “The why, where and how of broadened public participation in the administrative process,” *Georgetown Law Journal* 60, (1972): 525-546; For example, Cramton suggests that government’s use of entities such as advisory committees is simply a means of legitimating an expansion of governmental powers while mollifying public suspicion about intentions. On the other hand, Howlett suggests the former theory highlighting societal driven factors, whereas other researchers, like Roger C. Cramton, have argued the latter theory better explains the actual motivations behind the creation of advisory committees

delegitimation within a policy sector. What is assumed here is that the trade journals can reflect industry views that prompt sectoral developments and action.

Table 3 Cross correlation between the U.S.D.A. advisory committee creations versus (vs.) U.S.D.A. mentions in trade journals

Lag	Cross Correlation	Std. Error
-8	-.127	.209
-7	-.014	.207
-6	.361	.203
-5	.162	.198
-4	.102	.192
-3	.218	.189
-2	.278	.186
-1	.353	.182
0	.133	.180
1	-.043	.182
2	.371	.185
3	.494	.191
4	-.381	.192
5	.172	.196
6	.035	.202
7	.089	.206
8	-.102	.209

As the results in Table 3 show, the expectation of Howlett's hypothesis on the independent variable regarding sectoral delegitimation is suspect when tested against the case of the U.S. agriculture sector. The presence of the statistically positive correlation at positive lag of nine months suggests that the U.S.D.A. advisory committees are deployed without prior consideration into the levels of sectoral delegitimation. This empirical finding is reversed from Howlett's expectations. Thus, the presence of the positive correlation suggests that the federal government creates and deploys an increasing number of advisory committees when sectoral delegitimation is high. Moreover, it is the case that advisory committee creation leads sectoral delegitimation. While a lag is

expected, a lead is not explicable in Howlett’s model and suggests other factors are at work.

Cross Correlations: D.o.T. advisory committee creations vs. D.o.T. mentions in trade journals

Similar procedures to those used above for the U.S.D.A. sectoral variable test were applied to the D.o.T. committee creation series and the D.o.T. trade journal series.

Table 4 below provides the statistical results of the CCF between the two series.

Table 4 Cross correlation between the D.o.T. advisory committee creations vs. D.o.T. mentions in trade journals

Lag	Cross Correlation	Std. Error
-8	.132	.204
-7	.054	.200
-6	-.017	.198
-5	.054	.189
-4	.113	.191
-3	-.032	.186
-2	-.241	.185
-1	-.169	.180
0	.199	.177
1	-.204	.178
2	-.281	.183
3	-.002	.187
4	-.007	.192
5	.211	.194
6	.142	.197
7	-.133	.203
8	-.205	.204

Like the U.S.D.A. sectoral test, we expect to find a negative correlation with a statistically significant negative lag between the D.o.T. committee creation series and the D.o.T. trade journal series since Howlett’s hypothesis was that ‘low’ levels of sectoral delegitimation would be conducive for the creation of the advisory committee. However, the evidence from the U.S. transportation sector reveals the correlations between these two series are statistically insignificant. In the case of U.S. transportation, as it was in the

U.S. agriculture sector above, the evidence is counter to the expectations of advisory committee creation argued by Howlett. As seen in the results of Table 4, the correlations between the two series are trivial and, with some minor exceptions, statistically insignificant at all lag points.

4.1.2 B. Non- Interactive Systemic Delegitimation Variable vs. Advisory Committee Creations

Cross Correlations: U.S.D.A. advisory committee creations vs. U.S. Presidential job disapproval ratings

To test for the relationship existing between high levels of systemic delegitimation and advisory committee creation, the U.S.D.A. advisory committee creation series were cross-correlated with the U.S. Presidential job disapproval ratings series. Here, Howlett argues that the creation of advisory committees occurs when governments face ‘high’ levels of systemic delegitimation. If Howlett were correct, we would expect to discover a statistically significant positive correlation existing between the committee creations and presidential ratings series, with the first series following the second series (for example, at a negative lag). Table 5 below contains the CCF results between these two series.

Table 5 Cross correlation between the U.S.D.A. advisory committee creations vs. U.S. Presidential job disapproval

Lag	Cross Correlation	Std. Error
-8	.077	.209
-7	.126	.204
-6	.249	.200
-5	.227	.196
-4	.263	.192
-3	.146	.189
-2	.104	.186
-1	.192	.183
0	.232	.180
1	-.438	.183
2	-.378	.186
3	-.250	.189
4	-.299	.192
5	-.347	.196
6	-.181	.200
7	-.243	.204
8	-.105	.209

The evidence again suggests the reverse to Howlett’s hypothesis, as we have the presence of a significant negative correlation at positive lag (1). This suggests the government is not being prompted by ‘high’ levels of systemic delegitimation in creating the U.S.D.A. advisory committees but by low levels. Although this correlation does not imply causation, the evidence of the negative correlation at lag (1) also suggests the U.S. federal government creates and deploys the advisory committee, with the incurred effect being lower levels of systemic delegitimation with in a three-month period.

Cross Correlations: D.o.T. advisory committee creations vs. U.S. Presidential job disapproval ratings

Table 6 below reveals the results of the set of cross correlations done in order to test Howlett’s hypothesis that ‘high’ levels of systemic delegitimation would prompt the government to create the advisory committees in the D.o.T. case. Again, if Howlett were correct, we would expect the presence of a statistically significant positive correlation

with negative lag between the committee creation and Presidential job disapproval series. Again, as was the case with the CCF between the U.S.D.A. committee creations and Presidential disapproval series, the evidence in Figure 9 presents a negative correlation between D.o.T. committee creation and Presidential job disapproval series, at positive (1) lag.

Table 6 Cross Correlation between the D.o.T. advisory committee creations vs. U.S. Presidential job disapproval ratings

Lag	Cross Correlation	Std. Error
-8	.047	.209
-7	.114	.204
-6	.250	.200
-5	.200	.196
-4	.256	.192
-3	.201	.189
-2	.136	.186
-1	.220	.183
0	.275	.180
1	-.406	.183
2	-.364	.186
3	-.248	.189
4	-.308	.192
5	-.341	.196
6	-.188	.200
7	-.295	.204
8	-.130	.209

4.2 Section Two- “Interactive” Variable Analysis

The analysis presented in section one above was qualified as it presents only bi-variate statistical analysis regarding the incidental effect of each of the independent variables effects on the respective outcome, dependent variable. To be certain about the nature of these findings, an ‘interactive’ independent variable was created in order to test the interaction effects of the sectoral and systemic variables. Since Howlett’s model highlights the interaction of these two independent variables prior to the choice of procedural policy instrument, phase two consists of empirical tests to discover whether the interaction of the systemic and sectoral variables are correlated with the creation of advisory committee series.

Cross Correlations: U.S.D.A Advisory Committee Creations vs. Interactive (Systemic x U.S.D.A. Sectoral delegitimation) Delegitimation

In the case of U.S.D.A. advisory committee creations series, these were cross-correlated with the interactive delegitimation series. Here we would expect, if Howlett were correct, that a statistically significant negative lag would be present between committee creations and the interactive delegitimation variable. That is, we would expect the interactive levels of sectoral and systemic delegitimation to prompt the government’s creation of advisory committees. The actual value of the correlation (positive or negative) is incidental since this is a composite variable combining high and low elements of both independent variables. However, the CCF contained in Table 7 does not show these expected results. Instead, there is presence of a statistically significant lag at positive 2. The evidence suggests that the state is driving instrument choices, with the interactive

effect of the sectoral and systemic delegitimation rising six months after the creation of the committee.

Table 7 Cross correlation between U.S.D.A Advisory Committee Creations vs. Interactive (Systemic x U.S.D.A. Sectoral delegitimation) Delegitimation

Lag	Cross Correlation	Std. Error
-8	-.165	.214
-7	.074	.207
-6	-.231	.206
-5	.007	.197
-4	.109	.194
-3	-.124	.192
-2	.167	.186
-1	.085	.182
0	-.113	.180
1	.032	.183
2	.437	.184
3	-.244	.184
4	-.112	.191
5	-.064	.194
6	-.102	.203
7	.091	.201
8	.006	.211

Cross Correlations: D.o.T. advisory committee creations vs. Interactive (Systemic X D.o.T. Sectoral Delegitimation) Delegitimation

Table 8 provides the results of the CCFs produced between the D.o.T. committee creation series and the interactive delegitimation series. Here, we would expect the same relationship as we did for the U.S.D.A. committee creations above, where the interactive variable should lead the D.o.T. committee creation variable. However, the evidence reveals trivial associations at all lag periods for the case of D.o.T. committee creations.

Table 8 Cross correlation between D.o.T. advisory committee creations vs. Interactive (Systemic x D.o.T. Sectoral Delegation) Delegation

Lag	Cross Correlation	Std. Error
-8	.151	.203
-7	.075	.201
-6	-.165	.196
-5	-.002	.192
-4	-.063	.191
-3	.123	.183
-2	-.044	.181
-1	-.251	.178
0	.119	.174
1	.283	.181
2	-.236	.183
3	.142	.187
4	.007	.191
5	.213	.194
6	.221	.197
7	-.185	.201
8	-.183	.205

5 CONCLUSION

In neither the cases of the U.S.D.A. nor the D.o.T. advisory committee creations, then, does the results show the relationships hypothesized to prevail if the government's motivations for creating the advisory committees were indeed, affected by the generalizability of the legitimation problems they face, at least not in the manner that Howlett asserts. In the case of the non-interactive sectoral delegitimation variable, the cross correlations to the advisory committee creation variables of the U.S.D.A. and the D.o.T. did not provide the observable linkages between 'low' levels of sectoral delegitimation and the creation of these departmental advisory committees. The evidence suggests that the federal government's creation of the committees were not correlated with the 'low' levels of sectoral delegitimation as hypothesized by Howlett but rather, if anything, the reverse.

As for the non-interactive systemic delegitimation variable, the evidence compiled from the creation of U.S.D.A. and D.o.T. advisory committees reverses Howlett's theoretical assumptions underpinning the government's prior motivations for creating the committees. In both cases, the evidence suggests that 'high' levels of systemic delegitimation are not correlated with the federal government's motivations for creating the advisory committees. Rather, what seems to be occurring here is the creation and deployment of this procedural instrument is correlated with lower levels of systemic delegitimation in the U.S. political system. Here, the evidence revealed that the creation of the U.S.D.A. or the D.o.T. advisory committees were followed by falling levels of systemic delegitimation.

A second battery of tests was then pursued in order to discover the interactive effects of the sectoral and systemic delegitimation variables on advisory committee creations for the U.S.D.A. and the D.o.T. cases. Similar to the results from the non-interactive sectoral and non-interactive systemic delegitimation variables, the evidence from the cross correlations of the interactive delegitimation variables and the committee creation variables suggests the interactive effects of the sectoral and systemic variables was not as hypothesized, with advisory committee creations leading legitimating issues and not following them.

The statistical findings generated here suggest several overarching conclusions pertinent to Howlett's hypothesis on the creation of advisory committees. First, the decision by the government to set up advisory committees may not have anything to do with the levels of sectoral or systemic delegitimation since these variables in themselves do not provide a parsimonious explanation of these decisions. Simply stated, Howlett's theoretical model for the government's motivations in creating these advisory committees needs substantial refinement in light of the statistical evidence presented in this analysis. The findings from the American political context suggest the federal government's choices in creating the advisory committees are not being affected in the way hypothesized by the levels of sectoral or systemic delegitimation. Second, some of the empirical tests have revealed weak evidence that the deployments of the federal advisory committees are affecting the levels of sectoral and systemic delegitimation rather than the reverse. For example, where significant correlations between the various series were discovered, these were accompanied by positive lags in all cases. This finding, seemingly disputes Howlett's contentions that societal factors such as sectoral and systemic

delegitimation variables, are driving the government's rationales for creating the advisory committees. There is weak evidence from the American data suggesting the federal government is creating these committees for other reasons, with the incurred effect being observed in the levels of sectoral and systemic delegitimation. Third, in qualifying the empirical findings from the US agriculture and transportation sectors, it is important to note that the Howlett hypothesis may be prevalent in other policy sectors. The cases from these two sectors represent a minute subset of the entire institutionalised, industrial landscape of U.S. politics, where a 'snap-shot' from an 8-year period of the American experience was observed in order to compile time series data suitable for the test. Thus, verifying the general processes underpinning the dynamics of the authoritative instrument choice will require further empirical testing of different policy sectors and jurisdictions across larger spans of time. Fourth, the absence of a significant association between political delegitimation and the D.o.T.'s committee creations may have occurred because of the limited variability in the number of the D.o.T.'s committees that were created from 1997 to 2004.⁸⁶ As a result, the findings from the transportation case provide extremely weak and tentative evidence against Howlett's hypothesis for authoritative procedural instrument choice due to this low variability. Lastly, the Howlett model fails to incorporate a well-developed vision of the bureaucratic process- that is, of the

⁸⁶ Referring to Figure 4 above and focusing on the D.o.T.'s committee creations, there is a drastic reduction in the total number of committees from 33 to 24 committees beginning in the January 2003 quarter. This reduction in committees is explained by the transfer of various D.o.T. functions to the U.S. Department of Homeland Security. CCFs were produced for the D.o.T. case by censoring the data at January 2003 in order to determine whether this would have a statistical impact on the correlations between the levels of political delegitimation facing the federal government and their advisory committee deployments as hypothesized by Howlett's model. As a result of truncating the time series for both the independent and dependent variables in the D.o.T. case, there was little difference when comparing the CCFs of the original non-censored data to the newly created censored data.

administrative laws and rules that govern the government's bureaucracy. The model generalizes on a plane of abstraction far above the bureaucratic process, typically taking the government's choices for procedural policy instruments to be explicable by reference to societal factors driven by the levels of sectoral and systemic delegitimation faced by government. Howlett's model assumes, in other words, that it is possible to explain and predict procedural instrument choices without close attention to the bureaucratic-administrative process. Instead, the final decisions on instrument choices are taken to be a simple function of the inputs from the political delegitimation patterns faced by the government. Political delegitimation levels at the sectoral and systemic dimensions are key factors to understanding the government's procedural policy instrument choices. However, it is perfectly possible that the bureaucratic process governing the departments help shape the procedural instrument choices made by the government as much as the political delegitimation patterns faced by government (i.e., the President). Because the structure of institutions could possibly affect the choice for particular instruments, focussing strictly on the levels of sectoral and systemic delegitimation without consideration of how those instrument choices are channelled and reinforced by the bureaucratic decision-making environment may very well yield incomplete understandings of the instrument choices political actors, such as the President, make. While the bureaucratic process, in the name of parsimony, may be assumed away in Howlett's model, future research will have to scrutinize this assumption and determine what it buys and what it compromises.

That being said, however, what could possibly account for the empirical evidence present of the actual patterns of advisory committee creations in the U.S. cases

examined? One possible hypothesis deserving further study is provided by Guy Peter's recent arguments that the nature of policy problems may be the input variable affecting instrument choices rather than social context.⁸⁷ In his work, Peters develops a preliminary, but useful, analytical framework for understanding the relevant variations in policy problem characteristics which he argues affect the government's choice of particular policy tools. For Peters, "the ultimate end of the analysis is both to understand the nature of the problems, as well as the ways in which they may be matched with particular instruments and particular forms of evaluation to round out more fully a model of policy design."⁸⁸

The theoretical point suggested by Peters is that the choice of any policy instrument may be contingent on the prior processes and social constructions of the considered policy problem by public and private sector actors. If policy instruments are the 'means' of policy making process, then what Peters suggests is that prior conceptions (characteristics) of the actual policy goals and problems are significant factors affecting the choice of relevant instruments, not just contextual factors such as levels of legitimacy. While the hypothesis that advisory committee creations would be linked to sectoral and systemic delegitimation seems to be negated by the results of the cross correlation coefficients contained above, the evidence does suggest the plausibility of Peter's arguments; that is, there is no single policy instrument selected for similar contextual situations but rather only for similar problem situations. Departing from the questionable

⁸⁷ Guy B. Peters, "The Problem of Policy Problems," *Journal of Comparative Policy Analysis* 7, no. 4 (2005): 349 – 370. Policy problems are the perceived situations that some network actors believe are to be the subjects of the policy agenda of governments.

⁸⁸ *Ibid.*, 351.

links between sectoral and systemic delegitimation, Peters argues for the need to select particular instruments based on the type of policy problem(s) addressed by public and private actors. As he states:

If we were to understand completely the characteristics of the range of available tools there still would not be an algorithm for mapping tools into problems; the answer about in what circumstances to employ each tool is always, fundamentally, “It depends”...Therefore, we need to consider carefully the nature of policy problems that make them more amenable to interventions using mixtures of both public and private sector actors.⁸⁹

While Peters’ analytical framework is not examined here, he does provide seven variables which he argues can be used to characterize policy problems and understand those factors during instrument choice. The seven variables he lists are: *solubility*, *complexity*, *scale of the question confronting government*, *divisibility*, *monetarization*, *scope of activity*, and *interdependencies*.⁹⁰ The first three, he argues, relate to the problems themselves, and influence the selection of the procedural policy instruments. The other four variables relate more to the connection between problem characteristics and instrument choices that are substantive in their implications. Similar methodological strategies and time series data as the ones used above could be employed to focus on the theoretical and empirical linkages possibly existing between the input variables of solubility, complexity and scale and the choices of the procedural policy instruments, although the analysis must be left for another time and place.

Based on the preliminary evidence presented above, a reasonable hypothesis for future empirical testing would be that a policy problem conceived to be difficult to solve, highly complex, and requiring a comprehensive (rather than piecemeal) solution would

⁸⁹ Ibid., 352.

⁹⁰ Ibid., 364.

lead to some state-government procedural action, regardless of the sectoral or systemic delegitimation situation. On the other hand, without a pressing problem, that is one lacking the problem attributes of the former case, then the input variables regarding sectoral and systemic delegitimation might prove more significant when considering the motivations underpinning procedural instrument choices such as the advisory committee.

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