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FEDERAL INCENTIVES TO ADDRESS GUN VIOLENCE:
A MODEL OF SUCCESS AND FAILURE

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Carol Anne Zimmermann

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FEDERAL INCENTIVES TO ADDRESS GUN VIOLENCE: A MODEL OF SUCCESS AND FAILURE

By

Carol Anne Zimmermann

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ABSTRACT

FEDERAL INCENTIVES TO ADDRESS GUN VIOLENCE: A MODEL OF SUCCESS AND FAILURE

By

Carol Anne Zimmermann

The federal government invests billions of dollars to aid state and local jurisdictions in importing policies, but such efforts often are unsuccessful. This analysis is designed to provide insight into conditions that enhance or inhibit policy adoption. An example of such a federally incentivized policy is Project Safe Neighborhoods (PSN), which grants funds to the ninety-four federal judicial districts to address gun violence. This study investigates the competing external factors in PSN districts that are associated with the degree to which jurisdictions adopt the policy. Few studies have been undertaken to determine why federally-incentivized policy adoption succeeds or fails, but based on limited results and informed by organizational, economic, and risk theories, a model is proposed based on the premise that the less risky and the more beneficial a policy appears to be, the greater the level of policy implementation. It is argued that the more the policy is congruent with the needs, infrastructure, attitudes, and provides needed resources to the jurisdiction, the less risky the policy will appear and the greater the likelihood of adoption. Support was found for the external factors model, especially for factors related to the structure and infrastructure of the district.

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I wish to express my heartfelt appreciation for the scholarship and the guidance of the wonderful committee members who smoothed my path and challenged my ideas throughout my graduate work at Michigan State University. To Dr. Edmund McGarrell, Dr. Christina DeJong-Schwitzer, Dr. Steven Dow, and Dr. William Jacoby, I will remember and will reflect your legacy of intellectual vigor, personal ethics, dignity, and good humor in my academic career and my life. I especially want to thank my husband George, who gives me the support and the courage to go bounding off in pursuit of my dreams and my son Brian, a truly good soul, who reminds me why investment in the teaching of our children is important and joyful. I want to thank my parents who never had the luxury of a college education but fought fiercely to give that gift to me. Thank you to my faithful companions Pumpkin and Boots, reflections of unconditional love. So too my thanks go to the many friends, colleagues, and students who encouraged me to follow my passion. Finally, I thank God for taking me down this path, a teacher who treats me with more kindness, mercy, and gentleness than I could ever deserve.

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CHAPTER ONE: INTRODUCTION

The Promise of Federally-Incentivized Criminal Justice Policy

> Although there is high concern among politicians, professionals, and the general public with the outcomes of correctional policies, there has been little systematic study of the factors that affect policy adoption.
> (McGarrell & Duffee, 1995, p. 1)

Why do some jurisdictions fully implement criminal justice policies that are promoted through federal grants, while in other jurisdictions such strategies are ignored, rejected, symbolically implemented, or raised to the level of discussion but not meaningful action? The question is of import because the political and professional culture of justice and corrections promotes the paradigm of "policy uptake" or "policy grafting" and because billions of federal dollars are spent incentivizing the adoption of such policies (McGarrell & Duffee, 1995, p. 59). The federal government routinely provides fiscal incentives aimed at promoting national adoption of policies that are purported, assumed, or hoped to reflect the "best practices" available to the justice and corrections sector (GAO, 2003). The same process, to a lesser extent, exists at the state level with state governments attempting to influence local jurisdictions. Given the complex nature of crime and justice, federal policy incentives generally require collaboration among agencies and among levels of government. These grant-funded strategies may suggest or require the participation of community representatives, nonprofit and for-profit entities, along with the participation of public entities.

Examples of federally-incentivized criminal justice policies include the deinstitutionalization of status offenders in the 1960s, reintegration centers for adult offenders under the Safe Streets initiative in the 1970s, and current efforts to focus state

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and local jurisdictions on offender reentry from secure confinement and on the reduction of gun violence (McGarrell & Duffee, 1995; OJP, 2005a; Schwartz, 1989). The magnitude of the efforts and the funding that has cascaded to states and local governments in order to foster unified national criminal justice policies has been substantial, but the actual implementation and measurable impact of such efforts have been much less impressive (Cochran, 1992; GAO, 2003; McGarrell & Duffee, 1995).

Despite the failure of many federal incentives to equip and entice local jurisdictions into full and successful adoption of criminal justice policies, the efforts and the funding continue. It is argued here that an integration of various theoretical approaches can provide an explanation for the popularity of this paradigm of replication, despite the lack of results indicating that such strategies are cost beneficial or effective. It also is argued here that the integration of various theories can provide a model to explain how the perception of the risk associated with the adoption of a policy influences the willingness and ability of implementing agencies to engage in and invest in the activities required for successful implementation. It is further argued that until and unless we can understand the factors that promote or inhibit incentivized policy adoption by the collaborative groups tasked to such implementation, investments of federal and local resources will be wasted.

In terms of policy implications, a better understanding of competing factors in policy adoption would aid federal decision-makers in targeting funding incentives toward those jurisdictions that are primed for adoption. Funding directed to jurisdictions that are poor candidates for the proposed change could be linked to programs designed to

ameliorate those factors that limit the jurisdiction's readiness to adopt the proposed policy.

The Rise and Failure of Incentivized Policy Aimed at Collaborative Policies

The federal government's strategy of employing grants-in-aid for the promotion of federally-endorsed social policy began in earnest in the 1930s and funding of these strategies expanded through the 1970s (Salamon, 1983). Grants-in-aid are federal funds to "state and local action that advances a federal objective" (Salamon, 1983). The impetus for such federal grants in the 1930s was the poverty of the Great Depression and the intent of decision-makers at the federal level to equip state and local governments with programs and resources to provide jobs and job training for the unemployed (Anderson, 1975). Conditions associated with poverty and unemployment in the 1960s and during the Kennedy administration and continuing with the Great Society programs of the Johnson administration led federal agencies to provide grants to address a variety of societal problems. New agencies, including the Law Enforcement Assistance Administration (LEAA) and the Office of Juvenile Justice and Delinquency Prevention (OJJDP), were created to oversee newly initiated federal grants-in-aid to incentivize creation of programs to address issues associated with delinquency, crime, and public safety. Generally focused on the amelioration of social conditions theorized to influence delinquency and crime, these grants-in-aid spanned across levels of government and across local and state agencies and policy subsystems.[1] Federally incentivized programs continued through successive administrations, though the focus of those programs shifted

[1] An example of policy adoption that crosses policy subsystems is juvenile justice reform instituted during the Kennedy administration that attempted to integrate educational, judicial, and correctional subsystems (Marris & Rein 1970).

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over time. Deinstitutionalization and de-carceration were incentivized in the 1960s, while incentives to build more and more secure correctional facilities were incentivized in the 1990s (Torbet et al., 1996).

In the 1960s and early 1970s, few theories and models on policy adoption had been proposed (Lester, Bowman, Goggin, & O'Toole Jr., 1987). Two conjoined factors, that became routine aspects of federal incentivized programs, proved to confound theorists, researchers, and the implementers themselves. Those factors were the oft-mandated requirements that programs be planned to meet the needs of the local jurisdiction, and the requirement that planning and implementation processes engage a wide range of governmental agencies as well as stakeholders outside the formal structure of government. As the prevalence and visibility of these federally-funded policy adoption efforts increased, the interest of social scientists in investigating the mechanisms and the outcomes of such implementation likewise increased. Planning processes for this vision of collaborative implementation began to developed in the 1970s, and some implementation evaluations were conducted (MacIver, 1970; Marris & Rein, 1970).

An example of such endeavors in the early 1970s is a planning model proposed by MacIver (1970), to provide insight into the processes he proposed as key to successful implementation of these federally incentivized social programs. He envisioned a tree that branched from one central trunk in which that trunk was a clear definition of the problem. From the trunk, theories of causation branched off. Potential interventions sprouted off each theory, and the target populations affected by the interventions were growing from those intervention branches. Finally, value considerations would make up the highest limbs of the tree. The implementation group would then pick the path up the tree that

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best suited their particular situation and implement that policy. Federal policy frames envisioned that grants-in-aid, since they delineated both the goals of the policy and provided funding to at least seed the effort, would greatly clarify the path groups should follow up the planning tree. Not only was the government supplying funds for planning, it also was endorsing and incentivizing specific policy objectives. For criminal justice issues, federal support for local planning to implement federally- approved policies was prophesized to create a level of state and local cooperation and capacity that would, in the future, ensure implementation success.

> For the most part, the staffs of these units are too small, their resources too modest and their origins too recent to permit substantial progress toward complete models of comprehensive plans. However, as they build strength and get their bearings, these specialized state and local criminal justice agencies should be able to demonstrate increasing effectiveness and themselves assume major roles in providing technical assistance for coordinated criminal justice planning.
>
> (Skoler, 1970, p. 460)

This vision of coordinated criminal justice planning, spurred by federal support was not to come to fruition. For while the planning and implementation models proposed in the early 1970s identified many of the factors that would be included in later models and theories, such models failed to address the enormous problems that ensued when policy groups attempted to clearly define even the first step of the planning process. Defining the problem – let alone the planning morass associated with choosing what to implement based on value considerations was to stymie the action of many collaborative groups. As social scientists began to investigate implementation success or failure, they found the path to implementation success peppered with factors that often caused programs to be implemented in ways not envisioned by those crafting the federal policy –

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or not implemented at all. An evaluation of federally incentivized juvenile justice reform efforts targeting large cities in the 1960s produced results indicating such efforts resulted in no meaningful program implementation in areas where youth were at highest risk for delinquency and that "the strategy succeeded most where it was needed least" (Marris & Rein, 1970, p. 471). The study indicated that racial divisions in Chicago resulted in the inability to define the mission of juvenile justice reform. In Cleveland, social scientists could not provide a single, agreed-to causal theory for delinquency and the "absolute" answers that groups wanted before picking an intervention. That, coupled with the political differences and power struggles that arose between the Cleveland mayor, citizen groups, and the school board, a consensus choice on the intervention and the group to be served became impossible. Reform was implemented in Los Angeles, but the researchers termed it "bland" (Marris & Rein, 1970, p. 479). The goals and values within this racially heterogeneous city thwarted consensus decision-making. An uneasy compromise resulted in the implementation of a juvenile education and employment program targeted – not at non-white or black youth – the population most at risk, but only at Hispanic adolescents. The researchers note the lost potential of the program, and the failure of meaningful implementation, citing the 1965 riots in Los Angeles as proof of the unmet needs of black teens.

> A project boardroom is no magic circle, where long-standing conflicts dissolve under the spell of planning. On the contrary, it introduces new hopes and fears, new ambiguities, which can harden resistance and complicate intrigue, embittering old rivalries.
>
> (Marris & Rein, 1970, p. 479)

Researchers and scholars recognized the need for both a well-articulated theory for policy adoption and for a model delineating the factors theorized to promote success.

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By the mid-1970s and through the 1980s, theories and multiple models of policy adoption were developed (Lester et al., 1987). Top-down, bottom-up, adaptive, and evolution models were proposed (Sabatier, 1986; Sabatier & Mazmanian, 1980; Van Meter & Van Horn, 1975). Some theorists began to explore the importance of the interaction among levels of agencies and within and among policy subsystems (Goggin, Bowman, Lester, & O'Toole Jr., 1987; Sabatier, 1986).

As the 1990s dawned, theorists were beginning to understand the complexity of policy implementation and that multiple forces and factors influenced the level of policy implementation (Sabatier, 1993). Mazmanian and Sabatier's models identified seventeen factors to be considered (Sabatier, 1993; Sabatier & Mazmanian, 1980) and identified three domains or categories in which to organize the factors. Theories and researchers were beginning to focus on the environment in which policies were implemented and began to see relationships between the policy being incentivized and the locality into which it was being imported. While interest in implementation theory grew, researchers were somewhat frustrated by the lack of progress that had been achieved in building scholarly understanding and a viable model to predict policy implementation success. As Lester et al. note, "there is no shortage of variables purported to explain implementation" (1987, p. 19). Rather, what they found lacking was a framework in which to understand how those variables interacted and a means to weigh their relative importance in the policy implementation process

From this initial burst of theories and models, scholars have gone on to create policy implementation models that attempt to integrate the effects of competing factors using conceptual and theoretical frameworks based on concepts of networking, social

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capital, civic capacity, vertical and horizontal capacity. They borrow from theories in organizational studies, economics, political science, criminology, postmodernism, and even cellular biology (Agranoff & McGuire, 1998; Bardach, 2001; Bedian, 1980; Bolman & Deal, 2003; Clayton, Cattarello, & Johnstone, 1996; Cobb, Ross, & Ross, 1976; Colvin, Cullen, & Vander Ven, 2002; Csete & Doyle, 2004; Goode & Ben-Yehuda, 1994; Katz & Kahn, 1966; Kingdon, 1984; Lieber, 2003; Rengert, 1996; Weber, Lovrich, & Gaffney, 2003; Wright, 2005).

The Normative Choice

In tandem with the continuing debate over theories and models of federally-incentivized policy adoption, scholars such as Aaron Wildavsky (1971) entered into a debate over the normative question of whether or not the federal government should direct or coerce policy choice at the state and local level. The examination of this normative question is beyond the scope of this paper and will be left to those successors of Wildavsky who wish to continue that debate. However, Wildavsky's assertion that the federal government may be following a faulty paradigm in incentivizing policy adoption is worthy of note within the context of this paper. Wildavsky linked the modern federal strategy of policy adoption to the rise of the Planning, Programming, and Budgeting System (PPBS). This system, developed as a Department of Defense model, was a means of managing and advancing policy by linked funding to programs that directly supported the policy goal. Wildavsky claimed that this paradigm was then translated into a top-down, federal-to-local effort to manage policy through grants-in-aid. Wildavsky asserts that one fallacy in the reasoning that translated this policy adoption to social programs is that social policy, and crime policy specifically, is not implemented through

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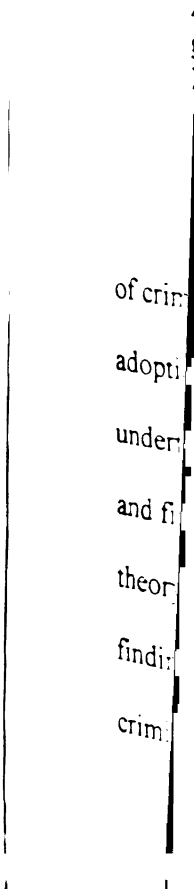

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a hierarchically controlled system but through a highly federated system of state, county, and city agencies that often overlap in jurisdictions and often fail to overlap in terms of core goals. Wildavsky asserts that a faulty assumption undercuts the possible success of such policy adoption, the assumption a system guiding policy implementation in a military context would be generalizable to other policy subsystems. His argument, as applied to the criminal justice system, would be that military culture and theories of engagement, while not universally held, provide much less ambiguity than theories about the source or prevention of criminal activity or what constitutes justice. Therefore, though the normative question will not be addressed, the factors Wildavsky argued complicate and hamper incentivized policy adoption resonate in later theory and research and in the arguments offered here.

Building a Model Based on Theory and Research

> Although there is high concern among politicians, professionals, and the general public with the outcomes of correctional policies, there has been little systematic study of the factors that affect policy adoption.
>
> (McGarrell & Duffee, 1995, p.1)

Upon review of the literature on federal-incentivized policy adoption in the area of criminal justice, it quickly becomes clear that few theory-based studies of policy adoption, and more specifically federally-incentivized policy adoption, have been undertaken. While this dearth of literature poses some challenges, there are still concepts and findings from which to build and test theory-based models. In addition, theories, theory-based models of collaborative policy implementation, and adoption research findings can be borrowed and translated from other fields. Theory-based research in the criminal justice field, even though not focused on factors influencing adoption, or not

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focused on incentivized adoption, are useful in the search for mechanisms that promote or inhibit policy uptake. Atheoretical evaluations in criminal justice also provide insights into the contexts and factors that influence the degree to which a federally-incentivized policy is implemented.

The model proposed and tested in this study hypothesizes that the adoption of such a policy is inversely related to the risk of that adoption, as perceived by the leaders of local agencies tasked with implementation. It is further hypothesized that the costs and benefits relate to factors external to implementing agencies, internal to those agencies, and internal to the task force or group given the responsibility to oversee such implementation.[2] The model predicts that: 1) policy adoption will be related to the level of organizational functioning of the task force; 2) the level of organizational functioning of the task force will influence, and be influenced by, the investment of member agencies in the task force; and 3) competing factors, internal and external to each participating agency, will influence the willingness and ability of agencies to invest. The more the policy complements the goals, infrastructure, attitudes, and survival of the implementing agencies, the less risky the policy will appear and the more agency leaders are willing and able to invest in the task force. Project Safe Neighborhoods, a national program intended to reduce gun crime, provides a laboratory for a test of the complex and inter-woven factors hypothesized to influence policy adoption.

[2] Recent federal incentivized policies in criminal justice have acknowledged the need to engage multiple agencies and entities in policy planning and implementation. To assure this collaboration, many policies require representation from specified entities in planning and implementation task forces.

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Project Safe Neighborhoods: A Natural Laboratory

The model will be tested on a federally incentivized policy initiative, Project Safe Neighborhoods (PSN). PSN provides fiscal support to each of the federal judicial districts to develop a broad-based local, state, and federal effort to address gun violence through the use of data-driven, collaborative strategies. This federal program provides a challenging but important research environment. It reflects the current trend in federal incentives to criminal justice agencies which mandate collaborative planning and implementation of programs and the use of data collection and analysis while allowing a good deal of flexibility in the choice of the target areas and the specific programs to be implemented. As theory and research will indicate, multiple actors and multiple implementation structures makes research designs complex. Defining, measuring, and modeling factors proposed to influence policy adoption raises difficult issues in terms of adequately reflecting theoretical concepts and creating a framework for analysis. Using theory and research to build and test a model of the influence of external factors on PSN adoption is offered as a step toward building better understanding of the competing factors and contexts that influence policy adoption and a model and methodology for exploring those factors through the lens of risk analysis.

Overview

The theory and the research that help explain why federally incentivized policy adoption continues to be employed by the federal government, and what factors are linked to the success or failure of that adoption will be addressed in Chapter 2. Chapter 3 reviews the research on the success and failure of such initiatives, and the theories that have and can be used to frame and test factors and contexts that could inhibit or enhance

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incentivized policy adoption and research findings related to those theories. This review will draw from fields beyond that of criminal justice to enrich the information available to identify potentially important factors and contexts for inclusion in the model of incentivized policy adoption. Chapter 4 introduces the elements of risk analysis and integrates those elements into the context of policy adoption. Chapter 5 presents a model for incentivized policy adoption, a research strategy based on risk analysis and a competing factors model developed by Quinn (1991). Chapter 6 outlines the research context, the hypothesis and key research questions, and the research design and methodology applied to the Project Safe Neighborhoods initiative to test the model. Chapter 7 focuses on variable construction. Chapter 8 presents the analysis and findings. In the final chapter, the potential for the utilization of the theory-based model, and the implications for scholarship and practice are discussed.

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CHAPTER TWO:
SHOULD FEDERALLY-INCENTIVIZED POLICY ADOPTION SUCCEED?

Several theoretical perspectives argue for the likelihood of adoption of federally-incentivized policies by state and local criminal justice agencies. Though differing in the manner in which they conceptualize the factors and processes supporting replication, all theoretically link some perceived benefit, or risk reduction, to the adoption of a policy that is, or is touted as, successful.

Rational Choice and the One Best Way

> In every case, one measure after another had been tried out, until the proper remedy has been found. That series of proper elimination, that evolution is what is called scientific management.
>
> (Taylor, 1996, p. 96)

Scientific management theory proposes that a best practice can be developed. Both this theory and rational choice theory offer related explanations of why adopting such a strategy would serve the goals of the entity. Scientific management, espoused by classic organizational theorists, such as Fredrick Winslow Taylor, held out the promise that the one best way to provide a service or product can be discovered or identified (Taylor, 1916/1996). With appropriate investment, protocols, and training, scientific management contended that the adoption of this "best way" would provide the most efficient and effective means to the desired outcome.

One of the simplest theories explaining why a public entity, or any entity, would adopt a seemingly successful practice from another is the rational choice model (Frank, 2000). Assuming that entities share a common goal, if one jurisdiction has greater

success in achieving that goal, then a rational choice would be for the less successful jurisdiction to import the strategy and, thereby, bolster its own success. In economic theory, market-driven models predict that firms that are able to innovate initially profit from the novel processes and products and enjoy a competitive advantage. However, this idea of rational choice predicts that, eventually, all firms in the sector will have an economic incentive to replicate or adopt similar processes (Frank, 2000). Based on this theory, any organization would be expected to make a rational choice to adopt the best practices in the field.

This theory was reflected, if not overtly, in public policy uptake efforts popularized in the 1990s, aimed at "reinventing government" by having public entities adopt policies from the private sector (Kettl, 1995; Osborne & Gaebler, 1992). Phrases such as "evidence-based", "exemplary," or "best" were used to describe policies and programs, imported from the private sector, that were held up as models for criminal justice and other public agencies to mimic (Osborne & Gaebler, 1992). The positive outcomes expected from the adoption of these private sector strategies often were expressed in costs and benefits and efficiency (Osborne & Gaebler, 1992). While the focus on replicating private sector policies has abated somewhat, the public sector is still focused on promoting policies that appear to provide beneficial results.

Such economic models, by the nature of the assumptions implicit in the models, reduce policy implementation to a rational and objective choice among alternatives aimed at obtaining the maximum positive outcome (Frank, 2000). As an example, economists Hennessey, Gray, & Conover (1977), propose a criminal justice policy implementation

model capable of predicting the mix of correctional alternatives that will produce the lowest recidivism.

> We treat the corrections department as analogous to a firm that must choose among production processes...
>
> (Hennessey et al., 1977, p. 266)

However, the development and utilization of such economic models of policy choice and policy adoption have been stymied by problems defining the expected criminal justice outcomes and monetizing those outcomes. As Noam (1977) notes, despite the huge investment in the criminal justice system, "the scarcity of an economic contribution to research of the criminal justice system is notable" (p. 41). In explaining the difficulty of utilizing economic models for criminal justice policy, Reich (1977) argues that the limiting factor is the inability to operationally define a state of maximum benefit, as "justice cannot be optimized" (p. 69). Pointing to the tension and competition between criminal justice goals, such as a speedy trial and a fair trial, Reich frames the fundamental hurdle to the construction of an economic theory of criminal justice policy uptake in the question "What, after all, is to be optimized?" (Reich, 1977, p. 59). To explain why rational choice and economic models are still linked to the popular notion that efficient criminal justice policies will stem from the uptake of model policies, Reich theorizes that these models provide a comforting paradigm in which crime, a threat to the fabric of society, is solvable and controllable - if only we devote sufficient research, time, and resources to its eradication (Reich, 1977).

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Wicked Problems and the Search for Legitimacy

Reich's question of what is to be optimized for a criminal justice program to be considered successful points to the goal-setting problems endemic to the criminal justice system. The problems of understanding, preventing, and controlling crime, of intervening with criminals, providing justice to and for victims and offenders, and assuring public peace and safety are what Rittel and Weber (1973) define as wicked problems. Wicked problems, they assert, defy the search for the one best answer. Wicked problems are laden with judgments about what is bad or good – not just effective or ineffective. How a wicked problem is perceived and defined may determine how people choose to solve it. The problem can often be defined as a symptom of another problem. Wicked problems elude definition in terms of when to stop, when the ideal state has been reached. Solving the seemingly intractable problem of crime fits the definitions well. Decision-makers in the criminal justice field are hard-pressed to offer clear and universally acceptable definitions of crime or justice and ever more hard-pressed to offer defined and measurable programs to meet those goals.

The value-laden and seemingly endless debate over the roots of and remedies for crime swirl around weighty issues of social conditions, discrimination, sexism, and even biological propensities. In assessing similar issues in education policy adoption Stone, Henig, and Perannunzi (2001) describe systems that deal with these wicked problems as "high reverberation systems" (p. 48). In these systems, value-laden ideas bounce back and forth among policy makers whose institutional boundaries overlap and whose goals are often unclear or conflicting.

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Organizational theories attempt to describe the factors outside and inside such institutions that both create high levels of reverberation and offer explanations of the advantage of adopting a "best practice" when coping with wicked problems. Classical organizational theorists, such as Max Weber (1922/1946) and Henri Fayol (1916/1949), conceived of the rule-driven bureaucracy as a way to overcome the complexities of administration.

> It is obvious that technically the great modern state is absolutely dependent upon a bureaucratic basis. The larger the state, and the more it becomes a great power, the more unconditionally this is the case.
>
> (Weber, 1946, p. 211).

According to this theoretical view, policy adoption of a standardized, federally incentivized policy would be seen as a rational decision, providing the policy provided documentation of rules and protocols sufficient to assure adequate organizational structure.

As organizational theory evolved, theories began to encompass a range of factors, internal and external to the organization, that were proposed to influence organizational behavior and survival. The change from a mechanistic view of organizations to a more organic perspective, changed the lens through which policy adoption was viewed, but these newer perspectives also predicted the allure and the benefit of incentivizing policy adoption, albeit through different motives and processes.

Beginning in the 1960s, theorists began to consider organizations as open systems (Burns & Stalker, 1995; Katz & Kahn, 1966). The internal functioning of the organization was a determining factor in the success of the organization, but ability to successfully manage meant the ability to manage in the context of the external

environment. For decision-makers in public entities in high-reverberation systems, such as criminal justice, theorists in the new institutionalism school offer concepts that explain why policy adoption or policy importation provides a benefit. New institutional theory predicts that when "when goals are ambiguous, or when the environment creates symbolic uncertainty" organizations may choose to model themselves after other organizations that appear to be successful (Dimaggio & Powell, 1991, p. 151). This mechanism - mimetic isomorphism - if it acts as theorized, predicts that a criminal justice agency struggling with conflicting, competing, or unclear goals but needing to maintain legitimacy with internal and external stakeholders might be more likely to adopt a policy that is touted as a model or as a national standard (Meyer & Rowan, 1977).

> Strategies that are rational for individual organizations may not be rational if adopted by large numbers. Yet the very fact that they are normatively sanctioned increases the likelihood of their adoption.
> (Dimaggio & Powell, 1991, p. 148)

Meyer and Rowan (1977) theorize that isomorphism, or mimicking successful policies from like entities, transforms policies into myths. These myths become credible symbols of success that provide some evidence that the entity is performing at industry standards. Myths increase legitimacy. While Meyer and Rowan see this as an aspect of all organizations, scholars attempting to research organization differences and outcomes between private and public sector organizations point out the added need for such myths in the public sector. Public entities, especially those with missions related to social issues, are high reverberation systems. These systems - such as the criminal justice system - deal with wicked problems, vague goals and conflicting goals, and with constituencies who often view the issue from very different perspectives. The ability to

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gain legitimacy through adoption of a policy with mythical qualities provides the insulation of legitimacy to agency leaders who, otherwise, might find proving program effectiveness to multiple constituencies difficult or impossible.

Policy Adoption: Mythical or Measurable Outcomes

The theories explored thus far present a framework for viewing the resilience of the concept of federally-incentivize policies on the basis of a perceived benefit or a lowered risk for those agencies adopting such a policy. Within these theoretical contexts there emerge two streams of benefit or risk: mythical or measurable outcomes.

> When output can be easily evaluated a market often develops, and consumers gain considerable rights of inspection and control. In this context, efficiency often determines success.
>
> (Meyer & Rowan, 1977, p. 354)

In 1940, V.O. Key (1940/1992) stated that, ideally, all policies instituted by a governmental entity would assure the same marginal return for investment (1940/1992). In order to gage the marginal return, policy implementation would involve a clearly defined goal, process, and measurable outcome. If each policy had such a clear process and product, myths would not be required as a substitute for measures.

In some criminal justice policy adoption, it might appear that despite the issues of wicked problems in a high reverberation subsystem, that simple measures might suffice. An example is a federal program that incentivized states to build pre-release centers to provide community-based correctional alternatives to state prisons (McGarrell & Duffee, 1995). Researchers were able to state with certainty how many centers and how many beds (or placements) were developed in each state as a result of the federal incentivized program (Duffee & Wright, 1990). Tangible, physical assets were added to the state's

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infrastructure and were, arguably, a measurable benefit accruing from the adoption of the federal policy. While, on its face, this example appears to be an example in which outcomes could be based on measure and not myth, in actuality competing factors in the adoption context of this example highlight the role of myth even in circumstances where outcome measures might appear viable.

While V.O. Key set the ideal of a budgetary theory to guide government action, the title of his 1940s article is "The Lack of a Budgetary Theory." In this work he noted that no theories had been developed that would guide government into such an ideal process. Scholars and theorists attempting to develop such a theory to guide policy implementation have found that concepts such as marginal return on investment become muddied by the attributes of public goals and public goods (Downs & Larkey, 1986). This issue becomes apparent if the measure in the example of the pre-release centers is scrutinized. The goal of the federal program was to shift from a prison-based correctional system to a system that focused on community-based corrections. The goal was not just to build a pre-release center or centers. In measuring the marginal benefit of the policy, a state that built a twenty-five bed, pre-release center but continued to fill prison beds in a massive system would meet the process goal of construction of a center, but not meet the goal of reducing reliance on prisons through the enhancement of community-based corrections. The benefit to the state would be increased capacity but the benefit in terms of the federal policy is far less clear. In terms of mythical outcomes, since the federal government is promoting pre-release centers as state of the art correctional policy, the state's building of one pre-release center might increase its legitimacy while allowing it to continue its correctional policy virtually unchanged.

Mythical Outcomes

> Institutionalized products, services, techniques, policies, and programs function as powerful myths, and many organizations adopt them ceremonially.
>
> (Meyer & Rowan, 1977, p. 340)

In the early 1900s George Sorel wrote on the power of governmental and societal myths (Sorel, 1908/1999). He described four aspects of such myths. First, they are social. Myths involve the action of people and often are framed to inspire or explain social action. Secondly, Sorel described myths as political. Myths are developed to change the ways in which the affairs of state and the affairs of men were conducted. Third, myths are intentional. Those who developed myths want to mold social conditions, not reflect the current reality. Lastly, myths are magical. In social science terms, myths cannot be falsified – they cannot be disproved.

The power of myths to provide the aura of legitimacy as an alternative to a measurable outcome is central to the idea of institutionalist theory and the value of isomorphism. Crank and Langworthy, (1992)studying policy adoption by law enforcement, adapted and updated Sorel's definitions, defining the characteristics of myths as having power, being contextualized by the social or geographic areas, marking the transformation of something, and being tied to political interest or interest groups (Crank & Langworthy, 1992, p. 34).

While some outcomes, such as the number of pre-release centers, can be measured, others cannot. Enhancing community options for offenders is subject to debate – not just about how that is measured, but as to whether community-correctional facilities are a better alternative to prisons, and a better alternative in whose view. If the building

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of community corrections centers is accepted as an indicator of state-of-the-art corrections, it becomes a myth in this policy environment and lends the power of legitimacy to those agencies adopting the policy. Yet, the lack of consensus at the local level on the value of community correctional centers may result in uneven adoption, ranging from symbolic, to minimal adoption, to more fundamental shifts in correctional practice.

Benefits to Criminal Justice Agencies of Myths and Coercive Mimetic Isomorphism

The concepts of coercive isomorphism and myths are easily integrated when applying them to federally-incentivized policies to solve wicked problems in high reverberation systems (Dimaggio & Powell, 1991). The federal government, by the use of such grants-in-aid, attempts to exert pressure on local governments to adopt a policy, which is the definition of coercive isomorphism. This is an intentional, social, and political act. The attractive and the potential benefit to the implementing agency is the insulation it provides when outcomes are not easily measurable. As important for criminal justice system agencies, adoption can provide insulation when outcomes are measured and that measurement is unflattering.

In most cases it is impossible to completely falsify or prove the value of a particular criminal justice policy. Controlled studies of policies are practically and legally difficult, and even if a control group is selected or a comparison region assessed, a host of uncontrollable social, political, and economic factors continually loom, threatening to confound the study. Policies well grounded in theory and well executed may not result in lowered crime rates or speedier trials due to factors well beyond the scope of one policy change. Adhering to a federally promoted policy provides some

insulation and some legitimacy when performance measures are absent or headed in the wrong direction.

Definitions of Success

When the federal government offers fiscal incentives to adopt policies it is a formal attempt to influence policies at the state and local level. Success to those driving the policy at the federal level may differ from success as defined at the state or local level. While the policy-makers at the federal level may have in mind the creation of a policy that molds social action, this formal coercive strategy may or may not result in hoped-for results. For the framers of the policy, modeling the policy in all aspects and institutionalizing that policy is the definition of success. Some local officials may share that definition of success, but for others the definition of success may be based on their own calculation of risks and benefits. The very characteristics of the wicked problems that create an incentive for agencies to embrace myths that lend legitimacy, in lieu of measurable results, create the conditions that may result in less than full and robust implementation.

According to Crank and Langworthy, effective myths are context-specific (1992). Federally-incentivized programs are developed outside the context of local jurisdiction and hence, may or may not be complementary to local context. Goals or protocols may conflict with local conditions, attitudes, and practices. Given this potential conflict and the often limited ability to provide measurable outcomes, agencies may decouple policy and practice. Success, as defined by the framer of the federal policy, is full implementation of the policy in every aspect. However, new institutional theory would consider such conditions ripe for decoupling (Meyer & Rowan, 1977). In the federally

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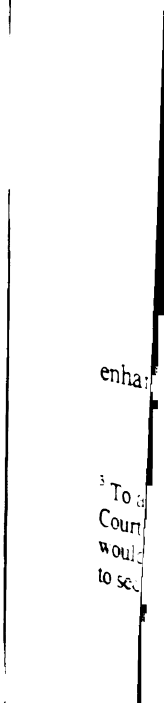

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incentivized policy aimed at deinstitutionalizing status offenders, such decoupling was found to occur. An example of such formal acceptance with little practical effect is illustrated by the adoption of deinstitutionalization in Ohio in the 1970s to the late 1980s. State law and policy were aligned with the new mandates for deinstitutionalization, and the state reported full compliance and was granted full funding. However, status offenders continued to be placed in secure detention at a higher rate than occurred in any other participating state (Grossman, 1999; J. Katz, 1982a; Schwartz, 1989).[3]

In terms of success, reports and evaluations indicate that some jurisdictions do successfully adopt incentivized policies. The degree to which this is true appears to be subject to some interpretation. To the degree that the processes or performance measures attached to the policy can be evaluated, it can be documented that policy adoption typically ranges from full implementation, implementation of certain aspects of the policy, or no meaningful implementation. For those policies for which such evaluation is not possible, not required, or cost-prohibitive to undertake, the level of implementation may be masked.

> Affixing the right labels to activities can change them into valuable services and mobilize the commitments of internal participants and external constituents.
>
> (Meyer & Rowan, 1977, p.350)

One manner in which local policy makers can harness the power of the myth to enhance legitimacy with no additional local investment is to rename existing programs to

[3] To accomplish this decoupling legally, the judges of the juvenile court used the charge of Violation of a Court Order (VCO). For example, to elevate a truancy from a status offense to a criminal offense, judges would place a child under charge order to attend school. If he or she were truant, the child was then subject to secure placement.

match the requirements of the federal incentive. Decoupling the policy from practice, espousing adherence to the policy but not translating that into activities could also provide some benefit to the local agency while requiring little local effort or investment.

The outcome of many studies, spurred on by the movement to "reinvent government" and import private sector policies and protocols found that accountability for profitability or cost-benefit were difficult to translate into the public sector (Foreman, 1995; Kettl, 1995; Osborne & Gaebler, 1992). Public agencies do not always enjoy the luxury of being assigned projects that are possible to accomplish. The expected rate of return of a public project is frequently less important to elected officials than the praiseworthy and electoral appeal of the goals that the project is supposed to accomplish (Thurow, 1986, p. 43).

When Thurow (1986) attempted to study the relative efficiency of private and public entities, he concluded that expected outcomes are subject to different forces in the public sector. At some level, costs versus profits limit survival of private sector firms. Funding and survival for government entities is more often linked to the perception that "praiseworthy" work is being accomplished (p. 43). Hence, the idea of importing a policy that has gained legitimacy in another jurisdiction provides the aura of credible, legitimate, and important policy adoption in the importing jurisdiction. This isomorphism allows organizations to "incorporate elements which are legitimized externally," reducing turbulence in the organization and with its external stakeholder and thus protecting "the organization from having its conduct questioned" (Donnermeyer & Davis, 1998, p. 348-349). Therefore, it can be argued that rather than offer a positive benefit, the importation of legitimized policies reduces agency risk. Not adopting those

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practices perceived as the industry standard could call the legitimacy of the organization into question and threaten its ability to obtain resources (Crank & Langworthy, 1992).

An example is Katz' study of the adoption of gang units in police departments (C. M. Katz, 2001). Katz concluded that many law enforcement entities mimicked other departments and set up units not because investments in those units provided a measurable return, but rather these were policy decisions "that have not been objectively tested, but are considered to be truths because they are known and accepted by all within the institutional environment" (p. 39).

Contagion and Diffusion: A Different Benefit

While open systems models and the new institutionalism predict the policy adoption through a perception of lowered risk and perceived benefits through increased legitimacy, contagion and diffusion models focus on another aspect of perceived benefits. Contagion and diffusion models, based on economic development theory, link transmission of a behavior or practice to a process that begins with modeling and then involves investment in the pattern (Berry, 1969). The success of the policy transmission is driven by the perceived risk or benefit of that investment. Such models have been translated into theories to explain the pattern of drug market emergence, the proliferation of gangs, and to promote the value of positive peer pressure programs for inmates (Rengert, 1996; Vorrath & Brendtro, 1985). In translating this model to incentivized policy replication, the federal government could introduce a "best practice' from another jurisdiction. The modeling and promotion of that policy could be aided by the infusion of federal funds. However, education policy researchers note the failure of this model in high reverberation systems (Clayton et al., 1996). While the initial investment from the

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federal government may assure some level of exposure to the new policy, Stone, Henig, and Persannunzi (1996) (2001) argue that factors in the local environment will greatly influence the perceived benefit or risk and influence of such adoption and, ultimately, whether the jurisdiction will invest in implementation. Among the factors they cite are public attitudes and political costs. Using the example of deinstitutionalization of status offenders, while the federal government provided funding to incentivize alternatives to placement for non-criminal youth, contagion was not automatic. Utah initially refused to participate as the governor believed the costs of adoption might outweigh the funds provided (Katz, 1982b). Similarly, Wyoming's leadership complained during Congressional hearings that, given low population density of the state, provision of alternatives was functionally and fiscally impossible in many areas of the state (*Hearings on Juvenile Justice and Delinquency*, 1977).

Enacted versus Crescive Change

The power of the federal incentive to create a contagion and diffuse policies to local jurisdictions may be a function of their power to lend legitimacy, as the new institutionalists would predict. However, as Stone, Henig, and Persannunzi (2001), assert that legitimacy may depend on the local context. Daniel Bell, in studying responses to enacted versus crescive change indicates that changes imposed from outside are more difficult to fully implement that those that those that are crescive, or growing out of local needs or changes in technology (Bell, 1961). Therefore, while many theories point to the attraction and the organizational benefits of policy importation, local context may temper those benefits and increase possible risks.

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CHAPTER THREE:
THEORY AND FINDINGS ON
FEDERALLY INCENTIVIZED POLICY ADOPTION

While theory suggests that adopting federally-incentivized policies could lower risks and increase benefits, research findings suggest that full implementation of such policies is less than a certainty. National and international studies of incentivized policies show limited success.

The U.S. Government Accounting Office's (GAO) evaluators stress the need to understand the level at which incentivized criminal justice policies are adopted, citing the fact that the U.S. Department of Justice (DOJ) spent nearly four billion dollars in fiscal year 2002 alone to provide grants-in-aid to encourage such policy adoption (GAO, 2003). This GAO study indicates that poorly-articulated plans limited the ability of the GAO to assess implementation in many of the programs under evaluation in 2003, but even in the eleven programs that began with well-designed implementation and evaluation strategies, more than half (six programs) failed in implementation (GAO, 2003). Another study by the GAO reviewed the evaluations of five justice programs funded through Byrne grants and five programs funded through the Violence Against Women Office (VAWO) (GAO, 2003). GAO investigators noted implementation and evaluation problems in all but one program. Data collection was hampered by the lack of a management information infrastructure in many of the implementing groups, interoperability problems among participating agencies meant limited data sharing, and together with legal and administrative barriers policy implementation was inhibited. In the majority of cases under evaluation, GAO investigators found that policies were not implemented, not

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implemented as planned, or only partially implemented. In researching the adoption of federally-incentivized efforts to remove status offenders from institutions, Schwartz (1989) found that the policy was not implemented in some jurisdictions and symbolically implemented in others. Even after a quarter of century of federal pressure and incentives, reports from the U.S. Justice Department's Office of Juvenile Justice and Delinquency Prevention show only seven states in full compliance (OJJDP, 1978).

In a theory-based study of policy adoption McGarrell and Duffee (1995) also noted a range of implementation outcomes. Their study of the adoption of community-based, correctional pre-release centers indicates that many "federal initiatives generated uneven and varied implementation at the state level" (McGarrell & Duffee, 1995, p. 15). Their investigations led them to conclude that to understand policy adoption, each case needs to be evaluated in light of the anticipated impact of that policy, the internal workings of the implementing organizations, and the environmental context (including the political context) in which that implementation will be played out. Starting from these insights and integrating theory and research findings, categories of factors and patterns of policy adoption can be drawn.

Theories and Patterns of Policy Adoption

> It seems clear that the rational-model approach uses a closed-system strategy. It also seems clear that the developers of the several schools using the rational model have been primarily students of performance or efficiency, and only incidentally students of organizations.
>
> (Thompson, 2005, p. 6)

Early organizational theorists, as well as contemporary theorists and researchers, have hypothesized about the relationship between employee attitudes and the ability of an

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organization to implement policy change. The neoclassical organizational theorists and those of the human relations school focused on the power of employee attitudes to influence the workings of an organization, including the ability of an entity to adopt and implement novel strategies (Follett, 1926/1996; McGregor, 1960; Roethlisberger, 1941/1988).[4] Chester Barnard, writing in 1938, noted the power of "ideal benefaction" or the desire of workers to participate in efforts that satisfied a need to contribute to the greater good and satisfy personal ideals (Barnard, 1938, p. 142). He also emphasized workers' needs for solidarity and an "enlarged feeling of participation" (Barnard, 1938, p. 146). This concept was born out in policy studies of education reform which found a relationship between wider understanding of the agency mission (as opposed to knowledge of only operational goals) and staff support for novel policies (Clayton et al., 1996). Studies of the implementation of problem-oriented policing found that staff members' perceptions of the value of the policy affect policy adoption (Cordner & Biebel, 2005).

Institutional theorists suggest that if employees of an agency are affiliated with professional organizations that sanction a particular policy, there is a greater likelihood that those employees will champion the adoption of that policy as a means "to establish a cognitive base and legitimation for their occupational autonomy" (Dimaggio & Powell, 1991, p. 70). Dimaggio and Powell (1991) link the power of professional groups to isomorphic change, a mechanism through which one organization takes on the attributes of another. They theorize that if professional staff from different organizations within the

[4] The power of employees or subservient workers, slaves, and foot-soldiers to enhance or degrade the adoption of a policy or strategy has been the topic of treatises through recorded time. Ideas not dissimilar to those expounded by human relations theorists can be found in The Prince and Discourses, written by Niccolio Machiavelli, circa 1513 (Machiavelli, c.1513/1950).

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same policy subsystem belong to associations that espouse support for – or opposition to – a policy, the greater the pressure there will be on these organizations to adopt strategies that are in harmony with the professional group's beliefs and to reject those in disfavor. Van Dusen's (1981) research on policy adoption of federally-incentivized deinstitutionalization of status offenders found that congruence between the stance of professional groups in juvenile courts and correctional systems and the philosophy espoused in deinstitutionalization influenced the level of policy adoption.

> The crux of this dimension of the theory is the matter of to what degree legislative philosophies are resonant or dissonant with the philosophies of practitioners who must implement the legislation.
>
> (Van Dusen, 1981, p. 802)

However, research results on the impact of professionalism on adoption have been mixed. Some studies have found no significance and other find professional groups to have measurable effects on policy adoption (Crank & Langworthy, 1992; McGarrell & Duffee, 1995; Thurman, Zhao, & Giacomazzi, 2001). The most compelling results appear to be associated with a specialized form of employee group, the union. Scholars have linked this affect not just to professionalism but also to a desire to maintain autonomy and job security (McGuire, 1997). Studies of juvenile correctional reform indicate that the most resistance for policy shifts came from labor groups who reframed the question from what will provide the best outcome for children to "what will protect my career?" (Campbell, Converse, Miller, & Stokes, 1965, p. 455).

While linked to employee and professional attitudes, the impact of unions also will be discussed in terms of the role such unions play as special interest groups. Studies, especially in the area of policing, have noted the power of unions and professional associations to inhibit, as well as promote, the adoption of a new policy (McGuire, 1997).

Researchers have found criminal justice agency culture is particularly resistant to change (Tong, 1984). The level of discretion and autonomy that is characteristic of many roles in this system has been proposed as a reason that change can be difficult. Policy adoption research indicates that implementation can be problematic in decentralized organizations where actors exhibit a good deal of discretion and autonomy (Agranoff & McGuire, 1998). Evaluations of policy adoption in criminal justice areas provide examples of that difficulty. Policies perceived as limiting discretion for those accustomed to exercising high levels of discretion, such as judges and police officers, often have been difficult to fully implement (Weisburd, 2000). In a sentencing experiment for those convicted of drunk driving, results indicate that judges did not follow the sentencing protocol in more than half of the cases (Weisburd, 2000). Craft standards for autonomous work have been noted in the failure of policy implementation within law enforcement agencies (Kuykendall & Roberg, 1982; McGuire, 1997).

Uneven policy adoption is not limited to the arena of criminal justice. Medical literature on adoption of evidence-based practices indicates adoption failure is linked to physicians' perceptions that the policy limited their individual judgment and devalued their training and experience (Spring et al., 2005). Another study from the medical literature assessed the adoption of an incentivized health education and screening protocol in medical clinics. The researchers noted that the autonomy with which the departments within the clinics operated contributed to the policy adoption failure in five out of the six clinics receiving the grants-in-aid (Cunningham, Michielutte, Dignan, Sharp, & Boxley, 2000). When organizations have a culture that is resistant to change or at odds with the particular policy, internal organizational issues are a significant predictor

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of adoption failure. The ability of an organization to fully implement an incentivized policy appears to be aided if there is a consensus among staff members that the policy is "necessary and possible" (Gargeya & Cydnee, 2005, p. 511).

Factors of Production, Protocols, Structures, and Infrastructure

While human factors are the focus of many theories used to develop a model of policy adoption, structures and systems within organizations also are hypothesized to affect organizational behavior. Organizational literature focused on administration and management stresses how the factors of production - such as the number of processes, the formality of the production protocols and oversight, the tools and training given to employees, and the physical infrastructure - and the relationships among those factors influence organizational functioning and change (Fayol, 1949; Simon, 2005; Weber et al., 2003). According to this perspective, the differences in technologies and the technical functioning of organizations, the manner in which physical resources and people are developed and deployed, and the degree to which the technical core of the organization can support the policy change may all determine the fate of an attempt at policy uptake (D. Katz & Kahn, 1966; Thompson, 2005). Broadly categorized, these factors of production are theorized to influence policy adoption through the impact of the level of organizational competence and the congruence of organizational assets to the policy being incentivized.

In terms of organizational competence, the better equipped the organization is to support its technical core and conduct routine functions, the greater its stability, a factor theorized as necessary for the organization to support the pressure of change (Kettl, 1995; Quinn, 1991). If payroll cannot be calculated and the computer system refuses to

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operate, implementing a new policy becomes more problematic than it might in an agency that has routinized such functions (Morley, Rossman, Kopczynski, Buck, & Gouvis, 2003). An example is found in the evaluation of a criminal justice program, SafeFutures, in which investigators found that agencies with poorly developed protocols and technologies had difficulty implementing the policy. Agencies that failed in policy adoption were less able to deal with "aspects of program implementation such as accountability, recordkeeping, reporting, program evaluation" (Morley et al., 2003, p. 3). Similarly, adoption of problem oriented policing was inhibited by the lack of technological resources and data collection protocols (Cordner & Biebel, 2005). Health care researchers find that even when agencies are supportive of policy adoption, lack of physical resources left agencies unable to implement the desired policy change (Tumiel-Berhalter & Hershey, 2005).

The second area in which factors of production are hypothesized to affect policy adoption is the congruence of organizational assets to the implementation requirements of the proposed policy. Public budgeting theories explain the power of fixed costs and investments in infrastructure (Frank, 2000; Hyman, 1999). These investments and costs can involve physical and human resources and the building of tangible assets, as well as the creation of standard practices and protocols. If the tools, technologies, and protocols that exist within the organization are the same, or closely related, to those needed to implement a new policy, this increases the likelihood of policy adoption.

In government agencies, as in any private or public firm, costs for the physical infrastructure represent an investment and a possible barrier to change. An incentivized policy requiring pre-release centers provides an example. If a state were heavily invested

in large, high-security prisons and the incentivized policy required shifting some inmates to small, low-security facilities, policy adoption might be impeded if this meant abandoning or under-utilizing existing resources. Closing down programs or facilities often requires legislative action and politically-mandated phase-down periods so operating expenses may continue for extended periods. In addition, since most jobs require an investment in training, policy changes may mean a loss of this investment and the potential of new training costs. Perhaps more importantly, since most government employees have civil service protection, employees also can be considered a fixed cost – at least for the short term (Hyman, 1999; Stillman, 1995).[5] Civil service and union protections generally require a substantial transitional period during which salary costs continue. Therefore, if policy uptake complements the physical plants as well as the staffing and training plans in which the organization has invested, uptake should be facilitated. If the reverse is true, implementation may be more problematic.

An example of the impact of infrastructure comes from a studies of adoption of new technologies among Fortune 1000 companies (Ettlie, Perotti, Joseph, & Cotteleer, 2005). Researchers found that companies were more successful at adopting the new systems if they were not heavily invested in an older technology and had a culture that

[5] The majority of jobs in government services, as opposed to those in the private sector, are under civil service protection and in many cases under collective bargaining agreements. It is estimated that more than 90 percent of civilian federal government employees are under civil service protection with similar estimates across the states. More than one-third of civilian state and local employees are estimated to be members of a union and covered under a state collective bargaining agreement (Stillman, 1995). In contrast to at-will employees in the private sector, if a policy eliminates a physical plant or a program, these protections generally afford the employee either continued employment in another position or an extended period of time in transition under the legal and procedural processes necessary to eliminate jobs or programs. Therefore, the cessation of operation of a facility or a program does not result in an immediate reduction in variable costs (Hyman, 1999). An example of this is the deinstitutionalization of the mentally ill. States attempted to institute policies that would shift both the mentally ill and the funding to local providers. However, the infrastructure of state hospitals and staff meant that the variable costs of running the physical plants and the time required to transition employees off the payrolls continued. Little of the

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favored importing such technologies from the outside rather than building the computer architecture themselves. This finding on upgrading computer systems reflects two aspects of organizational investment that may affect policy adoption. The investment in the physical system may inhibit the adoption of a newer system, even one that promises a good return on investment. In addition, structuring agency personnel and practice to build rather than buy technological advances creates a staff resource. That resource becomes ingrained in the organizational framework. Beyond the more tangible investments in systems and staff, setting up an organizational protocol for internal computer system development creates a decision-making and action structure that may inhibit openness to other alternatives. Organizational theories that distinguish between mechanistic and organic systems suggest that policy uptake may depend on the degree to which this internal investment in physical assets and organizational protocols creates an organizational mindset that options are limited and decisions are effectively "programmed" (Burns & Stalker, 1995).

> Non-programmed decisions involve much stirring about, deliberation, discussion and often vacillation...Programmed decision-making is what it is because of the existence of an institutional framework.
>
> (Burns & Stalker, 1995, p. 115)

Implementation is eased when the decision to adopt the policy fits well in the institutional framework. Rather than requiring rethinking and redirecting resources, the adoption of a policy with requirements congruent with existing structures and protocols brings the policy adoption choice closer to a programmed decision. This illustrates what Thompson refers to as "the search for certainty" or the desire to be a determinate system,

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variable costs, or operating funds were available to pass along to the local providers, thus crippling policy implementation (Mechanic & Rochefort, 1990).

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an organization that can control its own destiny (Thompson, 2005, p. 4). Contingency theorists offer the homeostatic principle to explain this search for stability and certainty (Burns & Stalker, 1995). That principle states that while most organizations are open systems "that any internal or external force making for disruption is countered by forces which restore the system as closely as possible to its previous state" (Burns & Stalker, 1995, p. 28).

Drawing on this concept, if policy uptake involves an expansion of current policies or just a repackaging of existing policies to meet funding requirements, uptake should be facilitated (Roth et al., 2000). Burns and Stalker (1995) also argue that the more the policy veers from existing practice and commonly understood goals, the more the organization must be nimble, organic, and less constrained if that new policy is to be adopted. In evaluating the adoption of offender reintegration programs, Duffee and Wright (1990) noted that reintegration programs that could be "tacked on" to the end of a prison stay were implemented across many jurisdictions (p. 188). These policies were congruent with "existing programs and did not require extensive changes in the sentencing patterns or large capital budgets" (Duffee & Wright, 1990, p. 188). Borrowing from environmental policy adoption literature, researchers find that the adoption of a multi-system approach is hampered by elements of organizational structure, including entrenched organizational policies and rigid organizational systems (Ma-Wen & Crawford-Brown, 1999). In a program funded by the National Cancer Institute, researchers found that five of the six health clinics that were financially incentivized to provide a new health education protocol to their patients failed to do so. Only the clinic that did not have a health educator on staff until one was funded as part of program

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implementation implemented the new protocol as intended. This finding led researchers to conclude that adoption was realized only when implementation did not compete with existing routine and protocols (Cunningham et al., 2000). "The structure of the health departments was such that changes could not be easily integrated into carefully defined routines" (Cunningham et al., 2000, p. 23).

The degree to which both the internal and external environment are formally structured also has been theorized to affect organizational behavior and policy uptake. Organizational scholars, building on the work of classical and neoclassical organizational theories, have investigated the relationship between internal organizational or bureaucratic structure and organizational behavior (Fayol, 1949; Merton, 1940; Simon, 2005; Weber et al., 2003). Fayol's (1949) ideas about the division of labor and chain of command and Weber's ideas about the systematic requirements and administration of organizations to achieve efficiency, shape current research on the degree to which factors such as centralization versus decentralization, unified versus differentiated systems, as well as size and complexity, influence the adoption of new policy directions (McGarrell & Duffee, 1995; Stone, Henig, & Perannunzi, 2001).

Especially in the area of policing, research into policy adoption has investigated the relationship of organizational structure to policy uptake (Kuykendall & Roberg, 1982; McGuire, 1997; Roth et al., 2000). Kurkendall and Roberg (1982) in studying the uptake of team policing (a variant of community policing) found that mechanistic departments with strict, hierarchical structures were less likely to adopt a team policing approach – which stresses individual discretion and accountability. More organic and less formally

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structured departments were more successful in this specific policy uptake (Kuykendall & Roberg, 1982).

These findings would appear to be in conflict with modern implementation theorists studying collaborative policy adoption who propose that implementation would be easiest to achieve if all the implementing organizations were similar in structure, highly hierarchical, and allowed little discretion in decision making (Agranoff & McGuire, 1998; Bardach, 2001). The intersection of these viewpoints may be sought in the amount of discretion exercised by various levels of staff and the type of policy that is proposed for adoption. Research into policy adoption in systems that are more specialized, decentralized, or fragmented as opposed to those that are more unified and centralized indicates that success may require congruence between the nature of the policy and the system structure, that policy adoption may "vary by the very nature of the reform itself" (McGarrell & Duffee, 1995, p. 5). Therefore, while one could propose that police departments with highly formal and militaristic practices would be able to dictate that team policing be employed, team policing protocols are incongruent with the protocols in such agencies. However, if the policy being proposed involved a structured protocol for employing S.W.A.T. teams, both the centralized structure of the agency and the culture of militarist practice might work together to enhance policy adoption.[6] Therefore, there are competing factors to consider when gauging the likelihood of policy adoption.

This idea of the mission of the policy reflecting the system structure also extends to the policy subsystem, what Dimaggio and Powell (1991) term the organizational field,

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and what economists might characterize as the business sector (Handler & Zatz, 1982, p. 81). That field or sector encompasses those entities that provide resources or services, participate in the production process, consume output, or provide substitute products. For public entities that policy subsystem is generally defined as "the major agencies involved in the particular substantive area and those responsible for the operation of the program, including the executive, legislature, judiciary, and various interest groups that have a stake in the issue" (Handler & Zatz, 1982, p. 81). The structure in the policy subsystem has been hypothesized to influence policy adoption. One example is the congruence between the degree to which the policy requires local decisions and actions and the degree to which governance of that sector and jurisdiction is federated, or the degree to which actions, power, control, and accountability are devolved to lower and local levels of government (Handler & Zatz, 1982). Policies that require more local activities and control, such as migration of some correctional services and inmates from state-controlled facilities to community-based pre-release centers, were more easily adopted in states systems with governance structures that distributed power to local entities (McGarrell & Duffee, 1995). The attributes of the subsystem also affect the ability of the agency to meet the technical requirements of the policy under consideration. If tools, technologies, and training do not exist within the agency, but do exist in the environment, the cost of implementation will be reduced if such resources exist in the policy subsystem, compared to the cost if such technologies need to be developed (Hyman, 1999).

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[6] S.W.A.T. is an acronym for Special Weapons and Tactics, or the original title Special Weapons Attack. Team. Such teams are highly trained to use specialized weapons and tactics in particularly perilous situations (Wells, Falcone, & Rabe-Hemp, 2003).

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In terms of policy adoption, research findings indicate that the more the new policy complemented the existing infrastructure and structure of the agency and the policy subsystem - be that physical plants, technical resources, staff skills, or organizational structure - the greater the likelihood of full adoption (Kuykendall & Roberg, 1982; McGarrell & Duffee, 1995; NIJ, 2000; Roth et al., 2000).

Goals and Policy Adoption

Congruence between the core goals of the agencies participating in the implementation and the goal of the incentivized policy is proposed to influence the level of policy adoption. Using contingency theory as a guide, the expectation is that policy uptake would occur most readily when it increases the ability of the participating entities to meet their goals and increases the resources available to do so (Burns & Stalker, 1995). While incentivized policies do, by definition, bring some new fiscal resources into the entity, the true effect of adoption may depend on the degree to which that policy provides a net gain or a net loss. If the implementation of the policy degrades the ability of the agency to perform its central mission or creates problems in the resource flow from other sources in the external environment, the policy might result in a net loss.

From a very practical standpoint, those policies that increase requirements and tax the resources of implementing agencies may increase adoption costs and reduce benefits (Sabatier & Mazmanian, 1980). In a study of problem-oriented policing, implementation requirements, including increased paperwork, degraded policy adoption as the requirements sapped resources that were expected to be expended in goal-oriented activities (Cordner & Biebel, 2005). As noted earlier, if policies require changes in protocols and infrastructure, costs increase as well and may increase substantially.

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This also leads to the question of whether adoption is more likely if the level of need is greater and the goal more pressing. Economic theory indicates that if there is a demand for a particular product or service, supplies will appear to meet that demand, and if the cost of that service is lowered by a subsidy that product may even more attractive (Frank, 2000). In terms of government policies, subsidies are offered with the presumption that they will increase the provision of the subsidized good or service (Ripley & Franklin, 1982). For federally-incentivized social policies, research indicates that often programs are best adopted in those sectors in which the need for the specific policy is lowest (Marris & Rein, 1970). Intuitively, congruence with documented need would seem a likely predictor of adoption. However, other factors that may be related to the need including lack of consensus on interventions to address the need, consensus on target populations for programs, and lack of organizational capacity to facility adoption have been positively associated with high need in problem areas (Clayton et al., 1996; Marris & Rein, 1970; Morley et al., 2003). For example, jurisdictions that have been unable to agree on the solutions for educational problems were both areas in high need of reform and areas least likely to adopt new policies (Clayton et al., 1996)

Just how much the policy and the incentives may enhance agency goals and the goals of the implementing group are dependent on a clear understanding of those goals. Cohen (2000) argues that successful implementation is not likely without a consensus on goals and a clear understanding on the part of the participants about the manner in which the goal and the proposed policy will influence human behavior in concert with greater societal goals. Research on collaborative policy adoption has found that the clarity of the goals in the coordinating group has been linked to adoption success (Sridharan &

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Gillespie, 2004). In research on federally-incentivized adoption of low-income housing programs, well-articulated goals led to greater implementation success (Basolo, 2003).

However, institutional theorists warn the relationship between the new policy and the overall mission of an organization or coordinating group may be difficult to discern. The complexity of goals in the criminal justice system and the difficulty of obtaining consensus on core goals for any policy can be illustrated by the effort to establish goals for trial court performance. According to the analysis of the Trial Court Performance Standards (TCPS) process, the working group of court officials was tasked to reach a consensus of goals for trial courts. The process was contentious and fraught with political and philosophical disagreement over the core missions of the court (Keilitz, 2000). In attempting to build consensus, the working group compiled seventy-five measures of "justice." Even this complex goal definition was not sufficient to quell debate.

Such research, as well an contingency theory and institutionalism, suggests that complex organizations often have competing and conflicting missions (Burns & Stalker, 1995). Herbert Packer points to an inherent conflict between two core models in the criminal justice system, the due process model and the crime control model (Packer, 1968). He contents that the tensions in the underlying assumptions and values of these models helps to account for the high reverberation and seemingly endless activities of framing and reframing policies. The fact that criminal justice agencies function within the political framework of representative government lays the foundation for even further complications. Rubin's (2000) theories of public budgeting indicate that the perception of agency legitimacy often is based more on public and political reactions than on proven

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performance, a premise that aligns well with institutionalism. A policy that calls into question the legitimacy of the organization could hamper the organization's political support that could translate into a loss of funding. In attempting to frame cost-benefit analysis tools for criminal justice, Mark Cohen notes that not only are costs difficult to estimate, but that the costs and the benefits can be perceived by different actors in very different ways and at different levels. Costs and benefits can be framed in terms of their costs to society as a whole – as social costs. Those costs also can be calculated as individual, external costs, meaning the cost imposed on one person through the activity of another (Cohen, 2000).

Whose Goal is to be Served?

The inflow of federal funds to support policy adoption may have wildly different impacts given the context of that implementation. The more novel the adoption, the more stakeholders and implementers must bond in a "community of interest" if the adoption is to be successful (Burns & Stalker, 1995, p. 121). The ability to have this level of commitment throughout the organization increases the chances of "put-through" or the ability of the organization to effectively use the resources gathered from the environment in service to the intended policy (Burns & Stalker, 1995, p. 28). One of the problems noted in collaborative policy adoption in high reverberation systems that deal with wicked problems is that it is often difficult to assemble a unified community of interest. How the problem is defined and who is perceived as benefiting from the policy can influence how broadly this community of interest is defined, and if a community of opposition will arise. These definitions are inherently political.

Politics here are stronger than the purse.

(Salamon, 1983, p. 9)

In evaluating the effects of federal grant-in-aid on policy adoption at the state and local level, Salamon (1983) noted that political power exercised at various levels of government and by various groups could, and often did, outweigh the power of the federal purse. Research in collaborative policy adoption indicates that when the goals of federal programs conflict with local goals, administrators often find themselves expected to support local attitudes and values as opposed to those espoused by federal policy makers "or expect to exit." (Agranoff & McGuire, 2004, p. 505). Political power was noted as a key factor in research on policy adoption in education (Clayton et al., 1996). Given the nature of criminal justice policies, that they are wicked problems, that any change in the manner in which an alleged or adjudicated offender is handled "may raise important political questions" and "for criminal justice practitioners, there may be political costs to experimentation" (Weisburd, 2000, p. 181).

In their research and critiques of theories of policy adoption in high reverberation systems, Stone et al. (2001) argue that politics is not sufficiently integrated into such studies. While political party affiliation or political ideology may be included as a factor in an equation or a case study, politics as "a way of resolving conflicts that cannot be resolved by other means" is not as easily or as fully integrated in social science research and particularly in criminal justice theory. According to Reich (1977), justice and correctional entities, compared to other public entities, are especially prone to political pressures, given the range of constituents and beneficiaries and conflicting goals. In attempting to frame the complexities of focusing on consensus goals for this sector,

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Reich notes that the political discussions of criminal justice goals do not center on the costs and benefits, but "how the problem is perceived and defined" (Reich, 1977, p. 67). While economic models have attempted to frame the mission of criminal justice entities as "maximizing social welfare with respect to the use of scarce resources," problems arise around the public and political consensus of what social welfare is and in what manner it might be maximized (Phillips & Votey, 1977, p. 89).

> Combating crime, therefore, is often just another way of subsidizing certain economic interests.
>
> (Palumbo, Levine, & Musheno, 1977, p. 86)

Mark Cohen's (2000) attempts to frame cost-benefit parameters for criminal justice evaluations points out the issue of beneficiaries. He notes that benefits and costs differentially accrue to – "taxpayers, crime victims, offenders, government agencies, and so forth" depending on the structure and goal of the policy (Cohen, 2000, p. 273). The provision of criminal justice policy, like the provision of any governmentally-funded public good, involves public choice (Hyman, 1999). Unlike a transaction with a private, for-profit firm, the person paying for a criminal justice program is usually not a direct client (Rubin, 2000). For example, taxpayers paying the cost of building and running government-operated prisons are not often direct clients or recipients of that service, but rather those taxpayers expect the indirect benefit of enhanced public safety. Public attitudes toward criminals, the degree to which criminals are constructed as "deviants or miscreants" has been found to influence support and funding for correctional programs aimed at treating health issues such as HIV/AIDS (Nicholson-Crotty & Nicholson-Croty, 2004). Ripley and Franklin's (1982) theories of policy implementation stress the power

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of public and political perceptions of beneficiaries and payers, of winners and losers, in the likelihood a policy will be supported or derailed.

According to these theories, beneficiaries of the policy and advocates for those beneficiaries can become important sources of public and political support for policy uptake. However, that power is balanced by the strength of groups opposing the beneficiary groups or from restricted clients (those who believe that resources channeled to this group of clients and beneficiaries drew resources away from them). The interplay of competing advocacy groups as well as their relative strength and their access to key decision-makers have been found to have dramatic effects on the adoption or abandonment of policies (Hyman, 1999). Using an example of instituting pre-release centers in the correctional continuum, direct clients would be prisoners. Advocacy groups for prisoners and better prison treatment could weigh in to support such a policy. However, in this case, prison system staff also could be beneficiaries. If the policy called for an increase in the number of state-run centers and the hiring of more prison workers, these individuals and their advocates could stand in support. In contrast, those opposing this policy could include advocacy groups who believe that prisoners should not have these (at least perceived) benefits. Restricted clients, or those people who feel they have been shut out of possible benefits, could also mount opposition. In this example, if state workers were slated to lose their jobs because the pre-release centers would be contracted out to private vendors and not state-run, these workers and their representatives or unions would be restricted clients and likely to oppose the policy.

> [In government] defining customers is much harder than it looks. Different people tend to want different things, and these preferences are not easily aggregated.
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> (Kettl, 1995, p. 59)

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How citizens perceive criminal justice policies, how advocacy and interest groups react, what media attention is aroused, how legislative decision-makers respond, and ultimately what political or legal action is precipitated are all dependent on the type of policy that is proposed. The dynamics of policy uptake for increased victim services will differ in terms of beneficiaries, opponents, restricted clients, and interested groups from the dynamics if the policy involves prisoner rights. Therefore, any integrated theory that attempts to capture the factors affecting policy uptake must recognize the dynamics of this interplay of interests and also evaluate support and opposition to each policy in terms of the parties most likely to support or oppose it. Research indicates that public support for government intervention in controlling crime is dependent on the level of perceived risk from crime (Gerber & Neeley, 2005). That risk may be influenced by the context of the public or publics viewing the need for and the appropriateness of the proposed policy adoption.

The need for a contextual model is highlighted by attempts to use political partisanship, state political culture, or political ideology as factors in models of criminal justice policy uptake. To date researchers investigating this relationship have not found consistent or significant relationships and have called for further research refining the manner in which political attitudes are described and may be influenced by regional or cultural contexts (Lieber, 2003; McGarrell & Duffee, 1995; Stucky, Heimer, & Lang, 2005). Similarly, structural factors such as economic development, urbanization (population density), industrialization, wealth, and geographic area have all been posed as possible factors affecting policy uptake (Elazar, 1984; Hero, 2003; McGarrell & Duffee, 1995; Stone et al., 2001). Unraveling the relationship between these factors and policy

policy uptake has been difficult. Different interpretations of the potential affect of these factors also have led researchers to propose both positive and negative associations. Those same researchers also have cautioned that the relationship between these structural factors and policy support may be confounded with other community-level factors (Hero, 2003; Leiber & Mack, 2003; McGarrell & Duffee, 1995). As an example, urbanization has been linked, through legal evolution theory, to modernization and the use of more formal and more punitive sanctions (Feld, 1973; McGarrell & Duffee, 1995). Feld (1973) found such a relationship in his studies of juvenile court policies, but noted that local context might confound the results. For example, Feld found that judges of juvenile courts in urban areas detained more children, but he also recognized that urban areas also had detention centers as a ready resource, and rural courts did not. In studies replicating some of the factors employed by Feld (1973), Traut and Emmert (2004) found citizen ideology influenced the severity of juvenile sentencing laws, but regional differences did not. A study by Leiber (2003) found less compelling the effects of urbanization on juvenile court processing, and found citizen ideology significant in predicting the severity of juvenile sentencing laws in the state, but regional differences had little effect. Given the complexity of the factors proposed to influence judicial decision, Leiber, like Feld, stressed the need to investigate structural factors in a richer context (Leiber, 2003).

McGarrell and Duffee (1995) in their study of policy uptake of pre-release centers for adult prisons, attempted to integrate institutional theory and legal evolution theory to develop a framework of factors representing the political dimension (incarceration rate), political culture, demographics (racial heterogeneity), characteristics of the correctional sector, and the institutionalization of the organizational form. In this research, they found

that the number of centers per inmate (as a measure of the effort devoted to community-based centers versus state prisons) was larger in jurisdictions with a more racially homogeneous population, where previous centers had existed for the longest time, and with smaller correctional systems. The number of centers in a jurisdiction was associated with more professionalism among staff and in states in which the state government shared more resources with local government. While racial homogeneity was associated with having more centers per inmate, the opposite was true and significant for predicting the number of centers.

Support or opposition to policy adoption may be related to various racial and demographic factors. Public support for the death penalty and for changes in the death penalty differ by race (Unnver & Cullen, 2005). However, these studies also indicate the need to view demographics and racial attitudes in a broader context. While attitudes about race appear to influence public attitudes and support for various criminal justice policies, social context, such as the level of racial heterogeneity or homogeneity in the community, have been found to influence support for criminal justice policies (Chiricos, Welch, & Gertz, 2004; Engen, Steen, & Bridges, 2002; Hero, 2003; Jackson, 2003; Leiber, 2003; Leiber & Mack, 2003; McGarrell, 1993; McGarrell & Duffee, 1995; Sampson, 1991; Sampson & Laub, 1993; Sampson, Morenoff, & Gannon-Rowley, 2002; Sampson & Wilson, 1995; Schwartz, 1989). An example is a recent study on the implementation of restorative justice programs which indicates that those programs were more often employed in more racially homogeneous communities (Rodriguez, 2005). Race may affect attitudes toward policy change, as studies show difference between whites and non-whites. An example is the 2004 study by Chiricos, Welsh and Gertz,

which found that support for punitive policies was associated with racial prejudice, but was also influenced by attitudes about crime, political conservatism, and regional culture (Chiricos et al., 2004).

These structural factors may need to be subsumed under the broader umbrella of attitudes. Research evidence on the impact of racial heterogeneity as it relates to support for punitive policies suggests that it may be attitudes - fueled by structural factors - that relate to policy uptake. Recent studies linking racial heterogeneity in the population to support for punitive policies indicate that when there are few minorities in the area, the relationship is not significant, but as the minority population increases, it passes a first threshold. Above that threshold, as the percentage of minority residents increases, so does support for sanctions until a second threshold is reached. When minorities become a substantial portion of the population, support for such punitive policies begins to decrease (Leiber, 2003).[7] Bridges and Crutchfield's (1988) research on imprisonment policies supported the hypothesis of a nonlinear relationship between minority population and punitive policies but noted that the relationship was more pronounced when other community-level factors also were present, in this case the degree of racial isolation in areas of concentrated disadvantage. Social control theory would predict that as a threat to economic, social, or political interest increases, "the level and scope of social control increases" (Liska, 1997, p. 50). The social movement perspective, more than functionalism, would predict this non-linear response, as the conflict can be seen not merely as a threat to the general or majority of the population, but between different segments in the population that differ in their interests and their power (Liska, 1997).

Therefore, the public or political definition and the support for correctional policy may depend on the perception of this policy as race-based and on the racial makeup of the community. The value of these results in building an integrated theory may be the idea that demographic and macro-structural variables may be researched and associated with attitudes, but then it is those attitudes that should be investigated for their congruence with the perceived winners and losers anticipated with the implementation of a specified policy.

Civic Capacity

The ability of a community or a jurisdiction to exercise control over law-breakers or those that violate the peace of the community has been linked to a shared value system and trust among community members. These ideas are reflected in concepts such as social capital or civic capacity (Clayton et al., 1996; Hero, 2003). Civic capacity differs from social capital in that it focuses not on interpersonal networks and relationships, but on actions that have a political and public component (Clayton et al., 1996).

Studies indicate that when community members are willing and able to identify specific issues that require action and potential interventions for those issues, policy adoption is facilitated (Clayton et al., 1996). Civil capacity, like social capital, appears to be linked to goal-directed interactions. Researchers studying the effects of DARE on middle-school students found that schools in which parents participated in additional anti-drug programs, and where community organizations also were involved in substance abuse prevention efforts, that students were more likely to resist using drugs (Clayton et

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[7] Leiber (2003) suggests that the relationship between racial heterogeneity and support for punitive policies is a non-linear function. He places the threshold for ascent at about one-quarter of the population of the area, and the threshold for descent at somewhere under one-half of the total population of the area.

al., 1996). A similar study of high school students also found that youth who attended schools in which other drug resistance programs were in place had lowered rates of substance abuse (Donnermeyer & Davis, 1998). Care has to be taken when inferring causation in such examples. Were students, families, and communities that participated more fully in the program already at less risk for drug and alcohol involvement by youth?

Goals and Formal Rules

While goal clarity is linked to effective and full policy adoption, goal clarity is often counterproductive in the legislative process. Unclear goals and vague policy expectations are useful when attempting to frame formal processes to address wicked problems. In a high reverberation system, such as criminal justice, the difficulty in reaching a public and political consensus on the goal, the processes, and the beneficiaries of policy often leads policy entrepreneurs, agency heads, and legislatures to draft and codify vague policies. Nonspecific language provides a means to gloss over highly contentious portions of the policy debate and focus negotiations on the over-arching goals over which there is little disagreement. Assuring public safety, for example, is much less politically volatile than debating the sentence length for powdered versus crack cocaine.

This lack of clarity, while a potent tool for passing legislation, creates two streams of implementation problems. First, some statutes are so vague that it is difficult for local implementers to determine they have the legal authority to implement the federally-incentivized policy. In Wyoming, a quarter century after the federal policy on deinstitutionalizing status offenders, administrators and legislators report that state law still needed redrafting to clearly comply with the federal mandates (CRC, 2004; Runner, 2004). Lack of clarity in the federal policy to be implemented also leads to adoption

problems. Since the politically-viable language often provides philosophical rather than practical and measurable processes or outcomes, adoption can be differently defined and interpreted.

Collaborative policies magnify some of the formal barriers to implementation. While agencies may struggle with legal constraints to policy adoption, requiring the participation of multiple agencies and groups, private and public, and from different levels of government increases potential barriers. Criminal justice systems, especially as they deal with sensitive information pertaining to victims, juveniles, witnesses, and those accused but not yet convicted of a crime, are constrained by scores of federal, state, and local restrictions. In collaborative policies that attempt to incorporate treatment or community support components, this network of participants can potentially expand to private and public agencies including health and mental health providers, welfare and social support agencies, substance abuse testing and treatment facilities, and community and religious groups. Attempting to determine which group can share what type of information with others and attempting to reframe rules or laws to allow for information sharing can be a confusing and resource-draining prospect for those attempting to fully implement collaborative strategies. The ability to negotiate through the politically constituted environment of expectations and constraints is considered by modern researchers of policy adoption to be a crucial, but poorly understood factor (Agranoff & McGuire, 2004).

Leadership, the Holy Grail

Leadership is often considered as the factor that will determine if and how well a policy is maneuvered through the political environment. Leadership has been linked to

staff motivation, overcoming barriers, and framing issues in ways that garner public support. However, a theory that captures the essence of effective leadership – or the ability to influence the behavior of a group toward a goal – continues to be the "holy grail" of organizational theory (Bryman, 1996, p. 276). In studying policy adoption, leadership appeared as an important variable, but investigators were left with questions about its relationship to other variables, "how much leadership" is required and how does leadership relate to other factors in the implementation environment (Handler & Katz, 1982, p. 209)? Several theoretical schools of leadership have developed including the trait approach, the style approach, contingency approaches, transformational, transactional, charismatic, visionary, and political leadership (Bass, 1985; Bass & Avolio, 1987; Sims & Manz, 1984; Stogdill, 1948). The first two approaches, trait and style, deal almost exclusively with the individual characteristics of the leader. The later-developing approaches attempt to frame leadership as a process that exists within and that is influenced by context. While differing in the processes that are hypothesized to influence group acceptance of the leader's direction, in all of these theories a common element is the leader's ability to manage and provide information that by some mechanism (such as exchange, value engineering, or inspiration) increases the likelihood that the group will follow the leader's direction.

Translating that component into research on policy uptake, Stone et al. (2001) found that leadership was a necessary but not sufficient condition to predict policy uptake success. These researchers noted that in the public sector, leaders often have short tenures and frequently move from one jurisdiction to another. However, transplanting a leader from a jurisdiction in which he or she has had some success implementing a

particular policy did not assure success in the new arena (Clayton et al., 1996). Similarly, contextual factors such as organizational structure (especially fragmented organizational cultures or sub-cultures), legal or regulatory constraint, the economic environment, as well as social and cultural changes have been found to limit the ability of leaders to shape change (Leavy & Wilson, 1994; Marris & Rein, 1970). Quinn (1991) conceptualizes effective leadership as the ability to recognize organizational strengths and weaknesses and to take the appropriate action to minimize threats and maximize the opportunities available to the organization. This concept of leadership is one that assumes the effective leader is a "tenant of time and context" (Leavy & Wilson, 1994, p. 113). Therefore, one concept of leadership in policy uptake would consider effective leadership in terms of the leader's ability to function in a given context (Fielder, 1967).

The concept of leadership also has been expanded and viewed as permeating all layers of the organization, not only as a top-down process (Bass & Avolio, 1987; Bolman & Deal, 2003). Leadership and human relations theories have merged ideas of professionalism, ideal benefaction, commitment, and leadership to frame the idea of informal leadership at all levels of the organization (Bass & Avolio, 1987; Bolman & Deal, 2003; Bryman, 1996; Marris & Rein, 1970).

CHAPTER 4: THROUGH THE LENS OF RISK

> It is a kind of warfare. Although it is possible to find policies or changes that are for the benefit, as people themselves see it, of almost all, ordinarily, despite some possible common benefits, changes benefit some people by injuring others.
>
> (Lindblom, 1959, p. 265)

The theory and research on policy uptake indicates both the need to find a means to integrate and assess the often-competing factors that originate from internal and external sources and develop some framework to judge how those factors interact to make policy uptake more or less likely. The work of organizational theorists can be helpful in framing and expanding a means to understand internal and external factors in relationship to each other. The concept of risk or risk analysis may provide a new lens through which to view the interplay of these factors.

Risk analysis can be simply defined as "weighing the cost of the strategy against the potential benefits" (Crocker, 2003, p. 13). While this seems a simple enough idea, the ability to judge risk is complicated. First, there is the question of certainty. In all but the simplest analysis, every source of risk and every possible outcome cannot be anticipated (Machima, 2003). Second, there is the subjective component of risk. Risk analysis shows much more robust results when studies take into account the particular level of risk aversion for each decision-maker, although modeling individual risk attitudes remains a difficult task (Crocker, 2003; Machima, 2003; Pope, 2003).

Despite these hurdles, the lens of risk analysis can bring fresh eyes to the study of criminal justice policy uptake. Informed by theory and research, those factors hypothesized to influence policy adoption can be arranged on a continuum as to their

likelihood of minimizing risk to the entity if adopted or increasing costs and liabilities. Using a framework that allows competing risk factors to be mapped, an image of the potential risk associated with implementation can be drawn. This provides a starting point for developing an integrated theory and a model to predict barriers to successful implementation.

To address the issue of the subjective side of risk analysis, leadership will be woven back into the framework. As noted previously, the relationship between leadership and innovation remains a tantalizing but poorly understood concept, the "holy grail" of organizational theory (Bryman, 1996, p. 276). Using a model developed by Quinn (1991), effective leadership in policy uptake will be defined as the ability to recognize risk and either avoid that risk or maneuver the organization into a position where that risk is minimized.

Risk: The Perceived Need and the Expected Return

> Although there are exceptions, first and foremost, politicians and those they appoint, including correctional policy makers are committed to survival, which usually translated into an aversion to what they perceive as risk taking.
>
> (Latessa, 2004, p. 547)

Risk can be defined as the likelihood of an adverse event occurring. Risk, unlike disaster, is related to events that occur with some regularity and, therefore, have a better – though certainly not certain – chance of being anticipated. For example, risk planning for a warehousing company would involve preparing for burglary or theft. A disaster plan would involve a less routine event, such as a tornado or an anthrax attack. While risks may involve circumstances that occur more frequently, risk is not fully calculable as risk is dependent on knowledge filtered through perception.

The availability and the quality of information available to decision-makers influence the perception of risk. Those researchers attempting to understand decision making in policy adoption find that the amount and quality of information may not be associated in a positive, linear fashion with certainty or goodness in decision-making. Decision-making strategies have been posed as means to deal with missing, unknown, or unknowable factors, as well with potentially huge numbers of factors that influence the perception of risk in competing directions. Variants of incrementalism, satisficing, and garbage-can methods all have been proposed as ways for decision makers to reach decisions in a risk environment (Lindblom, 1959; Machima, 2003). While not yet adequately tested or proven, the hope of risk and disaster-planning agencies is that expert systems will be able to aggregate information and provide rich, yet mentally digestible information for decision makers.

However, decision-theorists and those studying risk analysis caution that risk is still a matter of perception. Research indicates that the perception of risk is constructed based on documented information, but also depends on less tangible factors related to culture, context, and power (Gwillim, Dovey, & Wieder, 2005; Thompson, 2005). An illustration of risk perception is given by Machima (2003). He poses the simple example of making an omelet. You have been given six eggs. You crack five of the eggs into a frying pan and then receive information that the sixth egg has a thirty percent chance of being spoiled. Do you risk adding the egg to have a bigger omelet or do you stop with the certainty of a five-egg breakfast? Assuming that some people would break the egg and others would not, the question becomes how well can we model the competing factors that influence any one omelet-maker's decision to break or not break that final

egg? Machima cautions that risk involves uncertainty, that the perception of risk may be based on differences among people in their calculation of the likelihood of some event occurring based on their beliefs. Beliefs are difficult to represent in a statistical model, and perceptions of costs and benefits are state-dependent, or dependent on the perceived source and context of the risk.

An assessment of the effectiveness of personal decisions on risk is most certainly context-dependent. Investment strategies, insurance plans, even decisions as to whether or not to buckle a seatbelt bespeak the differences in perceptions of risks and benefits among individuals. When looking at the context of the working of a single public agency, decisions on the policy to employ and the level of implementation can no longer be assessed only in terms of their congruence with personal perceptions of risk. Effective leadership in policy adoption efforts may be tantamount to the ability to judge the risks and benefits accrued by various levels of adoption in the context of the entire implementation environment. Even in a single public agency, communication flow among staff and stakeholders is necessary in a fluid environment in which communication about policies both informs and shapes the perceptions of risk and benefit.

Limiting Risk

> We make trade-offs in our personal and business lives between the burden of risk exposure and the cost of risk mitigation. Financing the costs associated with a bad outcome becomes the question.
>
> (Crocker, 2003, p. 13)

Loss prevention involves tactics to limit the chance of a negative outcome (Crocker, 2003). Decisions about whether to invest in policy adoption may depend on

the expected losses compared to the expected gain associated with adoption. One facet of federally-incentivized policy adoption that is assumed by federally policy framers to influence that perception of risk is the infusion of federal funding. This incentivized policy adoption has the potential of lowering risk through cost-shifting (Crocker, 2003). Research into the adoption of tax policy provides some insight into efforts to manage risk in a context that includes the possibility of cost shifting. A study of the local imposition of a sales tax by local governments in Georgia was more likely in jurisdictions with a high property tax burden that could be off-set by the sales tax, providing what the researchers labeled "motivation" (Zhao, 2005, p. 721). However, such motivation to reduce taxes was insufficient to predict adoption. The model was improved by the inclusion of the potential benefit of shifting the burden of the tax to non-residents (such as visitors and tourists) and the inclusion of the perception of risk posed by tax competition.[8]

In assessing perceived risk and its effect on decision-makers, Gwillim, Dovey, and Wieder ((2005) contrast "push" factors, or factors that enhance the perception of the value of adoption, in relation to inhibiting factors. Mental calculations in the mind of the decision-maker determine his or her level of perceived risk (Gwillim et al., 2005). These researchers point to the power and autonomy of the decision-maker as a key component in this risk evaluation. Linking back to both contingency and institutional theories, the more the decision-maker is dependent on others for survival, the risk is evaluated in relation to the need for support and legitimacy with those external entities.

[8] Tax competition among jurisdictions involves the threat that if residents are able to move or shop elsewhere, lower taxes in one jurisdiction will make living or shopping there more attractive. Where high tax competition exists, raising taxes creates a risk of a lose in revenue, rather than a gain, from the tax increase.

Hierarchical, Closed-System, Multi-agency Adoption

Returning to Wildavsky's (1971) idea that federally-incentivized policy adoption is modeled after the Performance Base Budgets System, the most simplistic model of collaborative, federally-incentivized policy adoption involves adoption among government or non-governmental entities that are similar in structure, are hierarchically controlled, and allow limited discretion in the actions of staff. Policy adoption, in this highly simplified model, requires only that staff of each agency modify their actions in the context of their existing workplace. As Wildavsky argues, this type of policy adoption would be possible when the goal and the protocols were commonly understood and held among all the adopting entities, and where oversight and control of such entities provides sufficient power to limit discretion and variations in interpretation in adoption.

Figure 1. Simple Hierarchical Collaboration

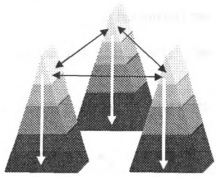


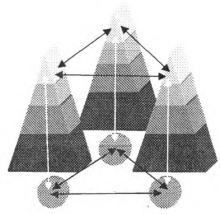
Figure 1 illustrates this simplistic decision-making collaborative. In this sort of collaboration, policy is coordinated at the top level of the entity, communication is top down with little or no room for discretion by staff. An example of such implementation might be a declaration by the federal government that a certain drug should be considered a controlled substance. States and local jurisdictions, as well as public and private entities, have well-established protocols that govern the distribution of such controlled

substances. The oversight mechanisms and the risk faced by entities for subverting such a policy make decisions for such adoption fairly clear-cut.

Matrix or Process Structures

Collaborative policy often involves an implementation group that mirrors the organization structure described as matrix or process structures (Rainey, 2003). These collaboratives involve the creation of a task group to plan and implement adoption (Figure 2). These groups, even within the context of one organization, can be problematic if the authority over the task group members is not clear. This can be particularly problematic in task groups assembled from various organizations that receive competing or contradictory messages from the home organization and the task group.

Figure 2. Matrix and Process Structures

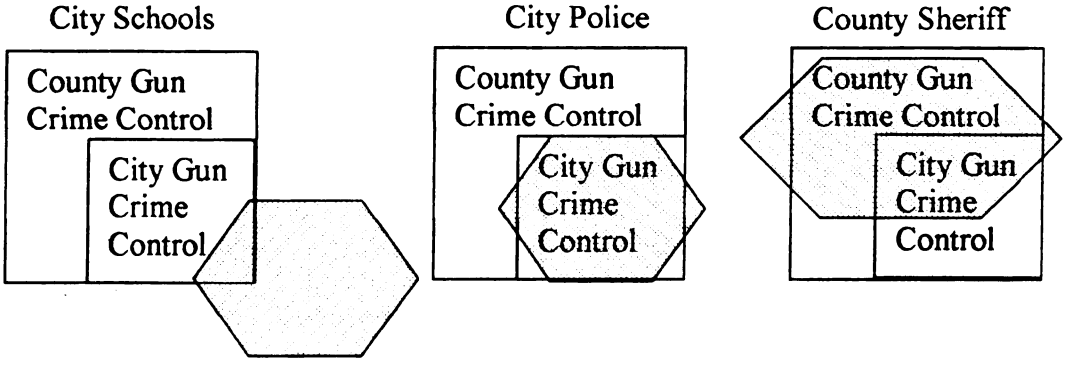


Goal and Governance Congruence and Partnership Competency

Collaborative policy groups also may include members who differ in terms of the centrality of the policy goals to the mission of their particular organization. While a policy may be envisioned as implemented by a task group that is inclusive, some members of the group may view the goals of the groups as somewhat peripheral to the mission of their home organizations. Figure 3 illustrates this incongruence of central

goals. In this case, a collaboration of three agenices - a city school district, a city police force, and the sheriff from the county in which the city in located – are incentivized into a task group to address gun crime. The control of gun crime is much more likely to be one of the major goals of a sheriff's department and the city police force, and they address this goal in an overlapping area. In contrast, while student safety and juvenile crime are, no doubt, concerns for the city school system, goals related to the educational achievement of students are the core goals and legal requirements central to the school system. Research on collaborative policy adoption refers to partnership competency as the ability of these member organizations to work together toward a common goal (Bardach, 2001; Weber et al., 2003).

Figure 3. Example of Goal Foci Incongruence



Borrowing from research on environmental policy adoption, this partnership competence, is proposed to be a function of both horizontal and vertical competency (Weber et al., 2003). Vertical competency is the ability of a group to meet the goals and expectations as drafted in the policy. Horizontal competency is the ability to organize a collaborative effort in the local jurisdiction for support and implementatation of the policy. Horizontal competency can be conceptualized as including all members of the

affected community or jurisdication, or only those agents who are directly involved in the policy adoption process. For the purpose of the development of an adoption model horizontal competency will refer to the ability of the implementing agencies and groups and will not extend to public reaction and support. That public reaction and support will be considered as a factor affecting risk decisions of the implementing agencies and agents.

Networks and Information Flow

In keeping with theories of organizations as open systems, for a task group to function, it must be able to take in energy and convert that energy to some useful purpose in order to complete the cycle by justifying continued investment. A simple model of collaborative interaction might suggest a dense and highly reciprocal network (Scott, 1991). In such a model, all members of the group would communicate with all other members and would provide as much information (outdegree) as they received (indegree). In practice, collaborative groups appear to be highly unbalanced in terms of density and information sharing. Sridharan and Gillespie's (Sridharan & Gillespie, 2004) network analysis of collaborative problem-solving groups tasked to implement the federally incentivized juvenile crime prevention program indicates inequities in the frequency – or density – of contacts among groups members. Some members indicated no contacts at all.

Risk and Investment

One of the major hypotheses offered here is that members of collaborative policy adoption groups will differ in their perspective of the risk and benefit of participating in the adoption of the proposed policy. Given that, and the theories and findings on the

factors and processes that influence collaboration, some group network formations are posed as most likely given the nature of criminal justice policy.

One step in building understanding of the interaction and investment of group members in these collaborative groups is to explore potential models of participation and information exchange. Building from recent models of collaboration, three models of PSN collaboraton are proposed. The first model is the bowtie model, borrowed from cellular biology. The second is recognition-based decision making and a varient of that from social networking theory on ego-centric models. The third is a model of symbolic or non-productive interactions.

While models are proposed as discreet representations of interactions and investments of group members, this is an oversimplification. Groups, for the most part, probably do not possess all the characteristic of one model or another. This categorization is meant to provide a framework for describing and predicting group behavior. Borrowing from cellular biology, theory would predict that information and resources flowing into a fairly complex system and from different sources requires some mechanism to manage the information and energy flow. The cellular biology model is called the "bowtie" model (Csete & Doyle, 2004).

Dealing with Interoperability Problems

Those studying organizational behavior in collaborative groups have turned to cellular biology for a model that appears a useful heuristic for group interactions. As noted previously, projects such as PSN ideally involve members from organizations with very different structures, from different levels of government, from public organization, from community groups, profit and non-profit entities, with different core goals and

missions, with varying resources, and different levels of power and autonomy. These differences can be thought of as creating problems of interoperability. While originally a term used to describe the ability of communication systems to work together seamlessly, the definition of the term has been expanded to mean the ability of humans, rules, protocols, and management information systems to exchange information without barriers. For collaborative task forces, such as those in Project Safe Neighborhoods (PSN), interoperability issues can be legion. The more all human, legal, and mechanic resources are interoperable, the less the cost of participation for collaborating members and the less the risk faced by participants.

A truly interoperable collaborative would have law and rules that do not inhibit, but actually promote, information sharing among members, common definitions for variables of interest to the collaborative, common protocols for data collection, storage, and analysis, congruent administrative policies and practices, and management information systems and other resources that have complementary architecture. In practice, completely interoperable systems within as varied a group as promoted by the PSN initiative would be highly unlikely. Therefore, the three models posed here have been theorized and found to be strategies that collaborative groups use to reduce the investment cost and the risk of participating in these cross-entity policy adoption processes.

The Bowtie Model

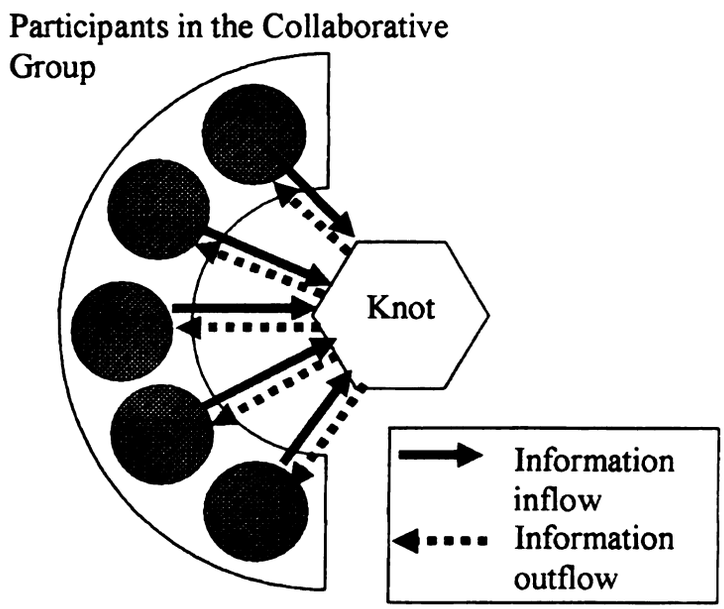
> This architecture uses selective homogeneity...to facilitate control, organization and management of the enormous heterogeneity in enzyme specificity, action and regulation, and in substrate size, flux and concentration. All modern technologies, from manufacturing to the power grid to the internet, are organized in bowties.
>
> (Csete & Doyle, 2004, p. 447)

While very small groups with simple tasks and infrastructures might be able to function as a dense social network in which information is shared in a fairly symmetrical pattern, this investment becomes costly and cumbersome as complexity and membership grows. To model the interactions and investments of complex, collaborative groups, theorists turn to cellular biology (Csete & Doyle, 2004). The bowtie model of information and energy exchange is so named for its shape. Information and energy flow in from a variety of sources to a hub – or knot of the bowtie – and then fan out again in a usable form. When adapting this theory of resource transformation from cells to collaborative groups, one can consider the vast amount of data, ideas, needs, requirements, goals, and resources that can be brought into the collaborative by various members. While potentially useful to the collaborative, these factors may be non-interoperable. A simple example would be data collection. In a given jurisdiction, the sheriff might gather data based on individual offenders and keeps that data in paper files, the criminal court might code by individual case and keep information in a hierarchical database, and the corrections department for the state might code each inmate on his or her most severe committing offense and store that information in a proprietary relational database. While data sharing across these systems might provide a strategic resource to the collaborative group, there is a cost to making the information interoperable. In terms of human interoperability, a community member or representative of a faith community might have difficulty understanding the wealth of acronyms and the bureaucratic norms that might be more easily communicated among state and law officials. Confidentiality or due process requirements might be part of routine functioning for some members of the group while completely foreign to others.

In order for these needs, requirements, and resources to be gathered in and transformed into a form that powers the work of the group some mechanism – the knot of the bowtie – needs to be functional. Whether that mechanism is a person or group formally or informally assigned, some collaborative infrastructure needs to be in place to decrease the cost to members of this information and energy exchange. In the Quinn (1991) organizational model, this would be related to the organizational competence and infrastructure. As data definitions, rules, communication structures, and protocols become routinized for the group, the group is best positioned to perform as a high-functioning organization. Groups following the bowtie model of collaboration would be expected to be associated with a more inclusive, multi-functional task group and with the greatest ability to act strategically.

Csete and Doyle (2004) note that this model is both robust and fragile. The ability to draw in resources from disparate forms and translate it into something that is more universally useful provides entities (cells in their research) with a potent agent. However, if this central hub is missing, damaged, or non-functional the system

Figure 4. Fan Model – Based on the Bowtie Model (Csete & Doyle, 2004)

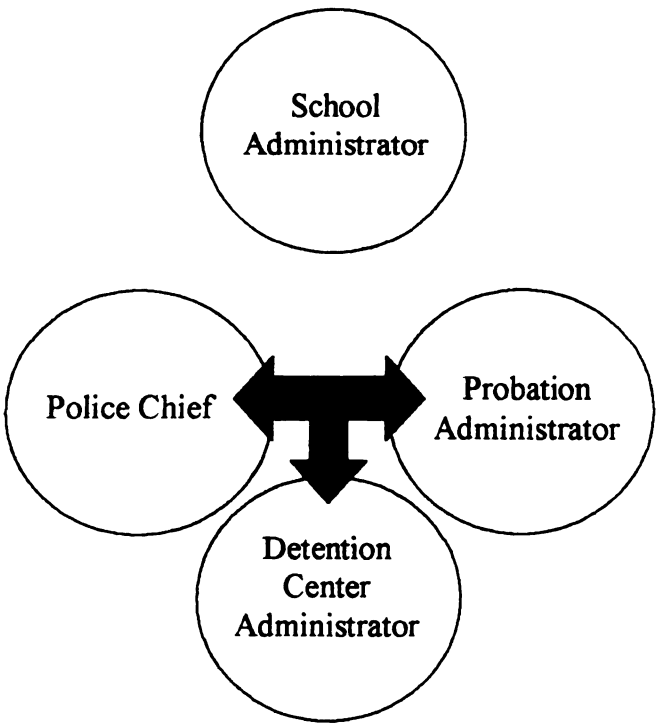


fails. As illustrated in Figure 4, for the purpose of looking at problem-solving networks, the model is perhaps better pictured as a double fan. The information would fan into a central source (or knot) but then return (fan out) in its modified form to the same participants.

Recognition-Based Models

Given problems with interoperability in a group with a diverse membership, one way to lower the cost of participation is to edit the group membership to those best able to communicate and participate in a recognition-based decision making model. Those researchers studying collaborative groups that attempt to respond in cases of high risk or disaster note that effective, yet narrow responses can be expected from recognition-based decision-making groups. These groups lower the cost of information and energy sharing by limiting information and activities to those for which patterns of communication and use already exist. An example from risk and disaster response literature is the recognition-based decisions of firefighters (Comfort, 2002, , 2005). Firefighters, be they state, local, federal, inmate firefighter or professional, have common tools, language, training, and

Figure 5. Example of a Recognition-Based Group



protocols. Brought together, even on foreign territory, members and teams have the ability to make decisions based on shared perceptions of risk and benefits, with the cost of information and decision-making lowered through a shared vocabulary, and common policies and practices.

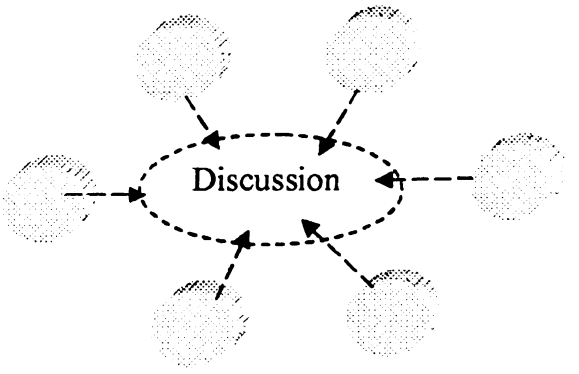
A collaborative policy adoption team that followed the recognition-based decision-making model would ground their interactions in shared experiences. This would mean that while this type of network would be open to information search and analysis, the limitation would be the tendency to focus on information with which the members have the most shared interest and knowledge, thus limiting problem definitions and potential solution to those that align with the group focus. If this were not the case, the costs of interaction and information would rise and the value of the recognition-based decision-making strategy would be lost. So, while this interaction pattern benefits those with shared experiences, it would isolate members and increase the costs of information and participation for those outside the recognition-based decision-making group. As illustrated in Figure 5, this isolation of members who have dissimilar experience bases has been noted in studies of policy adoption for juvenile programs in which groups of juvenile justice system professionals and school officials were incentivized to merge into a policy group. In general, participation by school officials were peripheral to the policy adoption processes (Lerman, 1975; Morley et al., 2003; Sridharan & Gillespie, 2004).

The Symbolic Group

In the symbolic network, members do not make meaningful investments in information exchange and decision-making. They may be physically present and engage in discussions, but a means of transforming individual entity inputs to energy and

information that can and is used to drive corporate decisions and actions does not occur. The participation levels and the information may be symmetrical, as portrayed in Figure 6, or widely asymmetrical. Symbolic policy adoption groups may report policy adoption in public statements or required documentation but may decouple those goals from actual processes and practices.

Figure 6. Symbolic Group



Risk and Policy Adoption

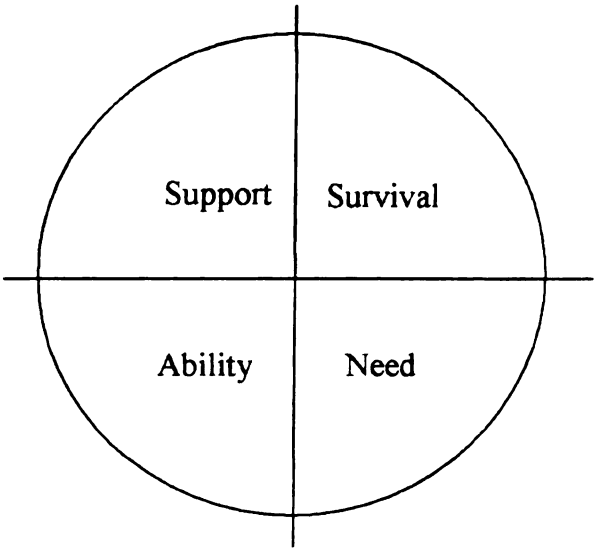
Risk analysis provides a different lens, a different perspective from which to view incentivized policy adoption. Some implementation or adoption research has asked if the system is open to change, sometimes linked to public attitudes and political windows of opportunity (Andersen, 1999; Kingdon, 1984; Miller & Ohlin, 1981). Policy adoption in criminal justice often has been linked to major, and generally negative, events. Storied examples are Jerome Miller's use of abuse in training schools to close those facilities in Massachusetts and the adoption of Boston's Operation Night Light, a joint police and probation effort launched in response to a rash of homicides of and by juveniles (Jordan, 1998; Schwartz, 1989).

Through the lens of risk, adoption is linked to a balancing of factors. In the case of a pressing problem, the risk analysis perspective suggests that the entities that could become involved in the policy adoption would choose to participate in policy adoption if they believed that this would lower risk. In extreme cases, such as the abuse of institutionalized children or a rash of homicides, some investment cost in policy adoption

is generally assumed to be a good tradeoff if it has the potential to lower an immediate and high risk situation.

In incentivized and collaborative policy adoption, risk analysis provides a means to model two facets of adoption decisions – how decision-makers balance the risks of adoption versus the risks of non-adoption, and how such decisions could be conceptualized in a group setting. Risk of implementing, which is defined as the perception of the potential costs versus benefits of adoption, can be conceptualized as dealing with four major factors. Those factors are illustrated in Figure 7. One decision area is the need, including the symbolic need, for the product or service promised by the policy goal. The second is the perception of the costs associated with adopting that policy, given the current status of the agencies that will be tasked to that adoption. The third is the level of opposition or support for the policy within the agencies and outside the agencies that could increase the costs and liabilities of adoption or ease and support it. The fourth is the perception of the potential gains and losses in power and resources that may be associated with policy adoption. The risk decisions can be summarized as 1) Is this policy answering a need? 2) How much will in cost to implement it? 3) Who will support it, and who will oppose it? and 4) Will it increase or diminish the agency's power and resources.

Figure 7. Risk Decision Factors



In terms of collaboration among agencies, the decision of any one agency to invest in the policy involves the assessment of risk, in terms of the factors noted above. In addition, participating in the task group or task force implementing the policy involves risk – or costs – as well as potential benefits. The decision-making models outlined earlier in this chapter provide three different means of balancing the risks of organizational participation (Figure 8). In the symbolic group, members limit risk by non-participation, balanced against no expectation of actual benefit from policy adoption. In the recognition-based decision group, members reduce the costs of participation by limiting group membership to those with common protocols and goals. The task group or task force can develop into its own organizational form, but the benefits of a truly strategic policy cannot be realized. Bowtie model groups reduce the cost of member participation, not by limiting membership to those with similar schema, but by creating an organization that can collect and translate information. The costs of participation in this type of task force are balanced against the perception of full and strategic policy implementation.

Figure 8. Risk Decisions for Group Participation

	Agencies' investment	Organizational Development of the Task Force	Adoption
Symbolic Group	No	No	No
Recognition-Based	Mixed Yes and No	Limited	Narrow
Bowtie Model	Yes	Yes	Strategic

The next question in creating a model for policy implementation, grounded in the analysis of risk, is what factors in what contexts influence decision-makers perceptions of the risk, the costs, and the benefits, of participating in policy adoption.

CHAPTER FIVE:
A MODEL OF INCENTIVIZED POLICY ADOPTION

Framing the Factors

> Hence, implementation efforts can vary according to the composition, disposition, and interaction of the actors and the conditions of the environment.
>
> (Nakamura & Smallwood, 1980, p. 23)

One of the difficulties in studying the behavior of criminal justice entities – or any organization – is developing a means to categorize the organization fully enough to build a rich profile of the entity, detailed enough to make research results meaningful and generalizable. In any organization, but especially given the highly politicized nature of criminal justice organizations, organizational values and characteristics may compete and conflict (Quinn, 1991; Reich, 1977). Those researching criminal justice policy have identified the need to utilize an organizational model that captures the competing factors present in and around the organization (Cochran, 1992). Bolman and Deal (2003) have proposed that organizations be evaluated in four frames: structural, human resources, political, and symbolic. Reflecting much of the same structure, Quinn (1991) developed a model that attempts to capture the major characteristics of organizations and represent the relative power of those characteristics, and importantly, represent those characteristics in relation to one another.

The Quinn model provides a framework for developing a means to identify and analyze sources of perceived risk. The competing values described for the purpose of developing a model of risk perception within the organization are taken directly from Quinn (1991). The external model of competing factors and the risk continuums for both

the internal and external model use Quinn's model as a base and attempt to integrate theoretically-based factors into an expanded framework to model risk in policy uptake.

The Quinn Model

The model Quinn (1991) developed outlines four quadrants of factors that he found influenced the functioning of an organization (see Figure 9). When assessing the functioning of one organization, Quinn found that the ability of that entity to balance four areas leads to high organizational performance. Those four focus areas are:

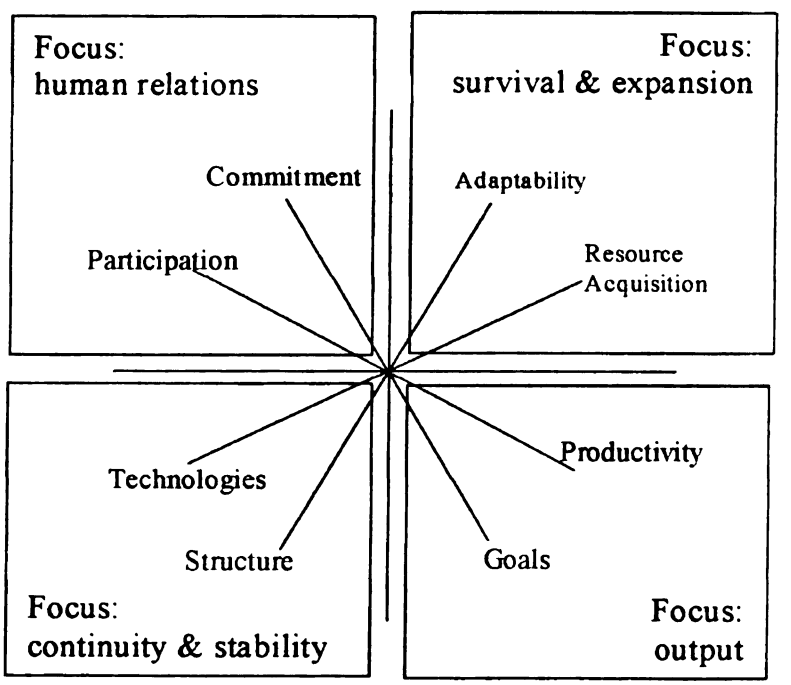
1) output or productivity,

2) continuity and stabilization,

3) human relations, and

4) survival and expansion.

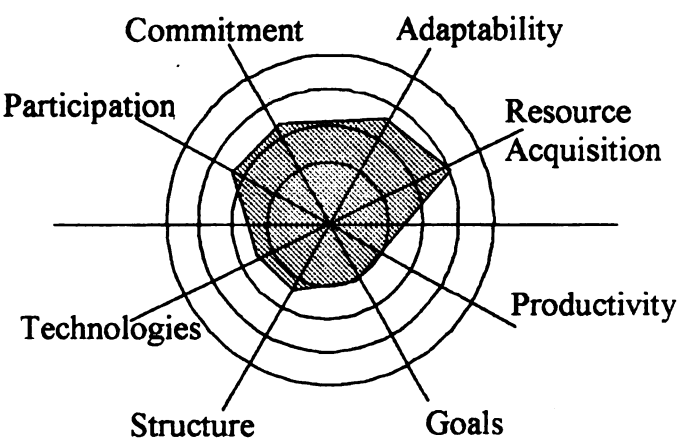
Figure 9. Competing Values Model (Quinn, 1991)



The Quinn model would predict that an organization with 1) well-defined needs and agreed-to goals, 2) a stable and appropriate infrastructure (roles, rules, and policies) and information system, 3) highly committed and prepared members, and 4) with few constraints on adaptability and access to funding and political capital is a high functioning organization.

Quinn has developed a series of instruments and a scaling system to analyze and display the effects of these competing factors on an organization's performance. As an illustration, Figure 10 is Quinn's display of scaling of an ineffective organization that he characterizes as a chaotic adaptive organization (p. 98). This scaling illustrates organizational dysfunction based on overinvestment in staff issues and efforts to garner resources in comparison to the investment in setting and meeting goals and building the infrastructure needed to support the processes needed to produce goods or services.

Figure 10. Chaotic Adaptive Organization

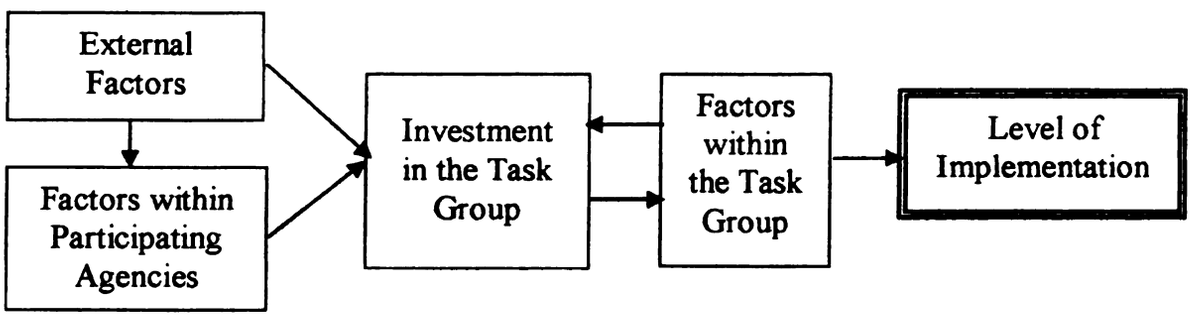


Adapted from Quinn, 1991, p. 98

While Quinn designed this tool to help leaders and planners diagnosis organizational dysfunctions and move toward high performance within one organization, the model is a valuable starting point for identifying, organizing, testing, and displaying the manner in which competing factors affect the functioning of various levels of agencies and collaborative agency task forces engaged in incentivized policy adoption. The sectors of the model align with the four major questions proposed as influencing risk decision – does this meet a need, what costs are associated with meeting adoption, who will support or oppose, and how does this influence resources and survival?

However, while this model provides an attractive base upon which to investigate the influence of competing factors, both current scholarship and current federal funding programs stress the need to integrate programs, policies, and practices to address complex problems, such as gun violence, that cut across the jurisdiction of many agencies. The crux of the problem in understanding implementation by a task force is what influences the willingness and ability of members to create and participate in this collaborative venture, and what hinders such collaboration. The model, outlined in Figure 11, indicates the level of policy implementation will be based on decision-makers' perceptions of risk or benefit, based on competing factors at three levels: external environment, within the internal environments of participating entities, and within the task group. Within each level, competing factors in the same four focus areas are hypothesized to influence the degree to which members can and do invest in the task force. The challenge is then to use, expand, and translate the framework suggested by Quinn (1991) to address the various levels at which competing factors influence the risk associated with policy adoption.

Figure 11. Model of Implementation Based on Task Force Dynamics



Viewing the Quinn model through the lens of risk analysis, a competing factors model for such collaborative policy adoption would involve the scaling factors in four

major categories – or sectors – and at the three levels noted in Figure 11 – external, within agencies, and within the task force. The four sectors proposed in the model are:

1) Needs and Products

2) Structure and Infrastructure

3) Human Factors

4) Resources and Survival

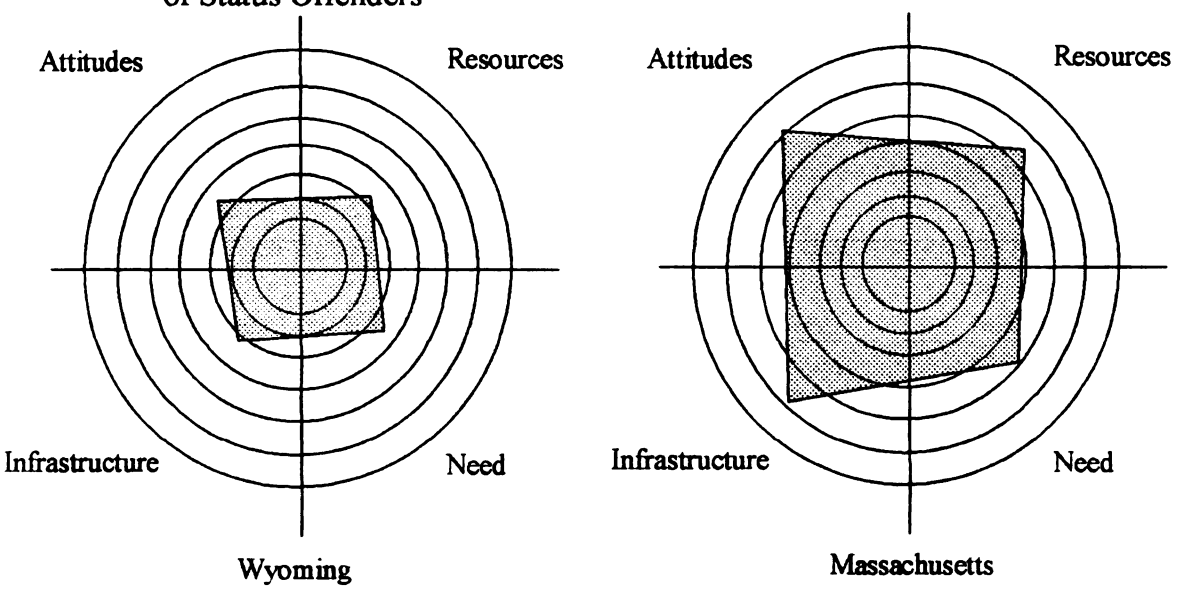
The External Level of the Model

At the external level, the competing factors that would be identified and translated into variables are the system's current need for the goals offered by the incentivized policy, and its current ability to meet that need. The second area of structure and infrastructure would assess the congruence between the structures and infrastructure in the jurisdiction with those required for policy adoption. In the human factors sector, public attitudes and pressure for or against the policy would be scaled. In the survival sector, the fiscal and tangible resources offered as incentives as well as the political gains or losses would be charted to complete the image of external competing factors.

To illustrate this, a simplified model of external factors gleaned from the literature on deinstitutionalization of status offenders is presented in Figure 12 (CRC, 2004; Handler & Katz, 1982; Handler & Zatz, 1982; J. Katz, 1982a, 1982b; Runner, 2004; Schwartz, 1989). Four factors are constructed for the states of Wyoming and Massachusetts. The four external factors proposed to influence perceptions of risk or benefit in policy implementation are the number of status offenders, the population density, public attitudes toward deinstitutionalization, and the funds provided as an incentive. Since funds were offered on a per capita basis, Wyoming's fiscal incentive

were far less than that offered in Massachusetts. Also given the low population of the state, the actual number of status offenders in Wyoming was relatively small. The states also diverged on public support and geography. Massachusetts is a compact state with a

Figure 12. Illustration of External Competing Factors in Deinstitutionalization of Status Offenders



population density per square mile of 820 residents. In contrast, Wyoming's population density is 5 residents per square mile. Preceding the initiation of this federal incentive, Massachusetts had barraged a public relations campaign by the juvenile corrections director and heavy media coverage of abuse of children in institutions and the need for deinstitutionalization. Wyoming residents had long supported a wise parent model of juvenile justice allowing local judges to determine placements and sanctions for local children. In statements that appear to reflect at least a tacit risk analysis, Wyoming officials noted that accepting the funds could create a net negative result for the state as there were too few status offenders in any one area to make the creation of alternatives economically efficient (CRC, 2004; Runner, 2004). With the perceived negative fiscal outcome coupled with, at best, public indifference toward the problem as conceived by

the federal policy framers, leaders in Wyoming did not even attempt a pilot period or ceremonial adoption, fearing that the risk of either was too high. In contrast, Massachusetts was an early and successful adopter.

Within Agency Competing Factors

The second level of competing factors, those within agencies, again categorizes those factors in the same four sectors. However, the focus of those factors shifts to factors that are proposed to influence each agency's perception of the risk of adoption. This model diverges from the Quinn organization model in that it attempts to capture the relationship between the policy and the functioning of the organization, rather than focus strictly on organizational functioning. For example in the goals sector, the question is not whether the agency has goals and universally agreed-to goals, but whether the goals of the agency are congruent with the policy goals.

Figure 13. Within Agency Competing Factors Model

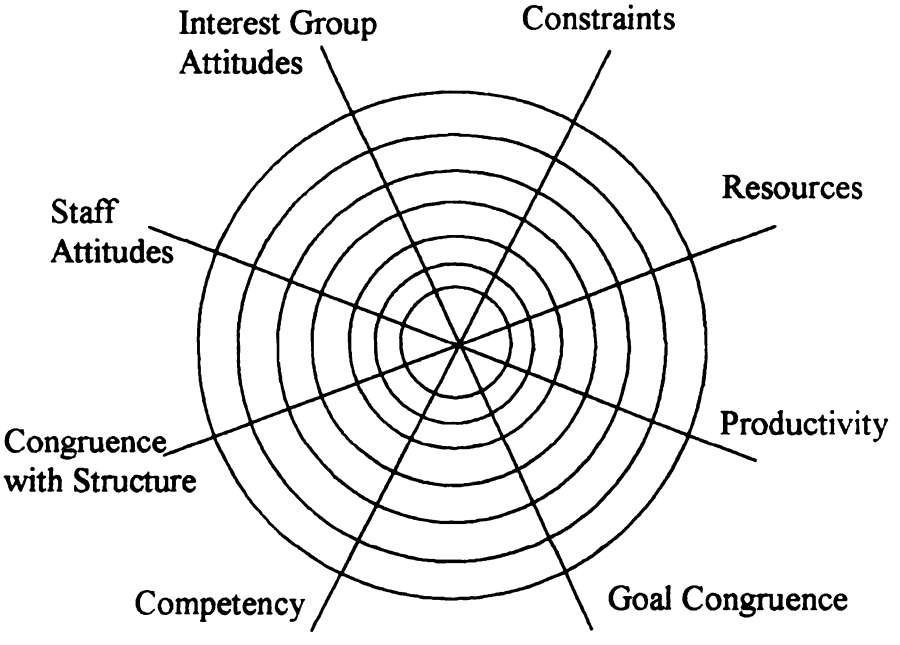


Figure 13 illustrates the Within Agency model of competing factors. In the context of each policy, factors would be identified to determine the extent to which each

agency perceived risks in each of the sectors. In the goal sectors, the factors proposed to influence the perception of adoption risk are the degree to which the goal of the policy is congruent with the goal of the agency, and the degree to which that goal is or was not already being met. In the structure and infrastructure sector, the ability of the agency to meet its basic operating needs is proposed to affect the perception of risk endemic in attempting to implement novel strategies. The congruence of such structural components as existing programs, physical plants, skills sets, protocols, and information management systems are proposed to influence the perception that the new policy is more or less costly to adopt. Human relations risks pertain to staff and professional group support for the policy and the support or opposition to the policy by the agency's constituent groups and those interest groups that attempt to affect agency policy. In the survical sector, the extent to which the agency is able or constrained or encouraged by law or rule to adopt such a policy as well as the potential resources garnered by the agency are proposed to influence the perception of benefit or risk.

Competing Factors in the Task Force

To access the factors influencing the functioning of the task group, the Quinn model could be most directly applied. Since the premise of the overall model is that a high functioning task group should be associated with full implemenation, the task force can be assessed much as any other organization. This organizational assessment also includes an assessment of leadership. It is hypothesized that groups may reduce risk by not forming a meaningful task group, limiting membership to those with similar professional schemas, or enhancing task force operations to allow for broad membership and broad data analysis. In the goals sector, the factors relate to the degree to which the

task group shares clear goals and has the sense that those goals are being accomplished. In the structure sector, the formation of standard practices and standardized membership along with the ability to collect and disseminate needed information are assessed. The level of participation and the commitment and morale of the task force are measured in the human relations section. In this sector, the willingness and ability of the leader to invite in and enage a broad range of members is assessed and will be related to the decision making group models. In the survival sector, the factors to be assessed are the ability of the task force to adapt and innovate and to gain resources – political and fiscal.

Testing and Utilizing the Model

To fully test, improve, and utilize the model, factors in each sector of each level of the model would need to be indentified and translated into a measurable variables. The influence of each level of the model and of the aggregate model would need to be analyzed. To truly build a model of adoption success, theory would dictate building an understanding of the perceptions of risk at all levels of the model. However, from a policy-maker's perspective, the external competing factors may be the most critical component of the model.

For those framing incentives the most accessible measures would be those in the external environment. Official data on needs and products, infrastructure and structure, public attitudes, and resources are much more easily obtained and less sensitive than information about the functioning of and dynamics within agencies proposed to be part of the collaborative effort. While similar information about the functioning of the task force charged with implementing the policy would be valuable to judge the factors influencing adoption, this could not be done until the task force was in operation. Therefore, if the

external competing factors component of the model provides some predictive capacity, it would be the portion of the model most easily and readily employed by legislators and federal agency leaders as they attempted to frame incentives and determine the best candidates for funding. If the external factors component of the model has some predictive capacity, it could be used to craft incentives targeted at those jurisdictions with a higher probability of policy adoption and to framing alternatives for those distrists facing barriers to success.

Given the difficulties defining policy adoption in the environment of a flexible, incentivized, criminal justice policy, this study will be limited to construction of measures of policy adoption success and the investigation of the extent to which the external factors within the greater model can predict the level of adoption. The model will be tested on Project Safe Nieghborhoods (PSN), the federally-incentivized policy aimed at reducing gun violence. This study will will examine the extent to which patterns of adoption can be found to support the theorized interaction of collaborative groups. The possible policy implications of both the external factors on policy adoption success and the patterns of adoption will be explored and discussed.

CHAPTER SIX:
RESEARCH CONTEXT, DATA, METHODS, AND ANALYTICAL STRATEGIES

This chapter will describe the context of the study, the hypothesis and research questions, and the methods that will be used in an attempt to test the model. How concepts in the model will be linked to variables, the collection of data, and the construction of those variables will be discussed.

The PSN Initiative

> Project Safe Neighborhoods is a nationwide commitment to reduce gun crime in America by networking existing local programs that target gun crime and providing those programs with additional tools necessary to be successful.
>
> (OJP, 2005b, p. 1)

Funding and Organization

Federal funding was allocated to fund Project Safe Neighborhoods (PSN) beginning in 2001. The funding was intended to support hiring additional federal and state prosecutors, target juvenile gun crime, distribute gun locks, promote community outreach efforts and train law enforcement and other public and private members in the Project Safe Neighborhood (PSN) programs (USDOJ, 2001). From the inception of the program until federal fiscal year 2006, PSN implementation groups were required to expend funds to contract with a researcher partner or crime analyst and with a person or entity to provide a media outreach and a community engagement program.

Funds are distributed by the U.S. Department of Justice to the ninety-four federal judicial districts through the fiscal agent. Accountability for the program and program funds rests with the United States Attorney in each of those districts. A task force of at

least three members was to be appointed by the U.S. Attorney to decide how the funds are dispersed. One person is to be designated as the project manager for each federal judicial district. Funding for 2003 ranged from the lower bound of $285,000 and was capped at $1,300,000 per district (BJA, 2003).

National and Local Missions

> The goal is straightforward and clear – to disrupt gun violence strategically and comprehensively, using all available enforcement and prosecution tools; uniting federal, state and local efforts; and leveraging new resources at all levels. (USDOJ, 2001, p. 2)

The federal guidelines indicate that the U.S. Attorney of each of the ninety-four federal judicial districts is to oversee a collaborative team to plan and implement strategies to address gun violence. The U.S. Attorney in the district must file reports with the U.S. Department of Justice by January 31 and July 31 of each year to certify that a PSN strategy is being implemented. PSN efforts are to address, and reports are to document, the adoption of five core elements of the PSN policy. Those five elements are:

1) partnerships,
2) strategic planning,
3) training,
4) outreach, and
5) accountability.

The general mission of the program is to enhance public safety by addressing gun violence, but jurisdictions are given latitude in developing strategies specifically aimed at solving the gun violence issues that affect their area. The team implementing PSN in

each of the jurisdictions can choose the geographical area that team wishes to target. PSN can be implemented jurisdiction-wide (which in some cases means an entire state or could mean one-fourth to one-half of a state), in a city, in a county, in a political jurisdiction – such as a Native American reservation, in a sector of a city such as police precincts, or a combination of such areas. PSN implementation has taken on all of the forms listed above.

Partnerships

> To implement Project Safe Neighborhoods, the Attorney General has asked each United States Attorney for a commitment to assume a leadership role for coordinating this effort and heightening awareness and involvement at the local level.
>
> (USDOJ, 2001, p. 2-12)

The United States Attorney in the district is charged by the Attorney General of the United States to facilitate the PSN effort. U.S. Attorneys are to coordinate the efforts of all agencies in their jurisdictions and all initiatives that have a relationship to gun violence (USDOJ, 2001).

> Partnerships should include local district attorneys, chiefs of police, sheriffs, as well as representatives from federal law enforcement, including the U.S. Attorneys, United States Marshals Service, INS, ATF, FBI, and probation and parole authorities. In some cases, it may also be appropriate to include other community leaders, such as faith leaders, educators, and citizen activists.
>
> (USDOJ, 2001, p. 3-1)

Partnerships (PSN taskforces) are to include representatives of the public agencies in the jurisdiction that are involved in policing, prosecution, parole, and probation of law offenses and offenders. As noted earlier, the team also included two members or entities whose services are provided under contract, a media consultant and a research partner.

Partnerships or collaborations with other representatives or leaders of communities or faith communities is mentioned, but specifically left to the discretion of the task force in the jurisdiction. PSN task forces are to join with other gun-violence oriented task forces that may already exist.

According the U.S. Department of Justice, each of these PSN taskforces should have written organizational documents including:

1) goals,
2) sub-goals,
3) methods,
4) activities,
5) responsibilities,
6) schedules,
7) resources,
8) and anticipated contingencies relating to the project (USDOJ, 2001, p. 3-5)

The United States Department of Justice (DOJ) also encourages the PSN task forces to formally adopt one of two problem-solving models, either:

1) SARA (scanning, analysis, response, and assessment), or
2) the SACSI model (Strategic Approaches to Community Safety Initiative).

In addition, USDOJ also recommends formally developing a logic model for program implementation, documentation of programs that are to be implemented, and the articulation of impact (outcome) measures. Task group members are encouraged to adopt

a "risk-taking orientation" in order to move beyond current practices to embrace novel strategies that appear to be supported by the data analysis (USDOJ, 2001, p. 3-6).

Strategic Planning

> Although the specific approach to combating gun violence will accordingly vary from district to district, Project Safe Neighborhoods asks each district to incorporate three national priorities in the federal enforcement component or the strategic plan.
>
> (USDOJ, 2001, p. 2-21)

The three national priorities the PSN taskforces are to address are:

1) increased prosecution of violent organizations (prosecution under conspiracy laws, or 18 U.S.C. § 924c, for the prosecution of armed drug dealers),
2) increased enforcement of gun trafficking laws, and
3) enforcement of federal laws against gun possession by felons and others prohibited from such possession.

Each district is charged with collecting local information (from local law enforcement and the ATF), and analyzing the extent, source, and location of gun crime. This information is then to inform strategic planning. The strategic plan is to include information gathering on the nature and location of gun crimes, the venues where gun crime is prosecuted (state or federal), and the results of prosecution. Follow-up information collection should be used to identify success and failure of strategies.

Training

This component encouraged task force members to provide training classes. Existing classes and workshops, such as those offered by ATF, were to be augmented by newly-developed regional training and locally-delivered workshops.

Outreach

> By conveying the priorities and subsequent results of this enhanced enforcement effort to the media and community members, the district partnerships can help shape the attitudes of law-abiding citizens and deter those who would otherwise believe they can violate our gun laws with impunity.
>
> (USDOJ, 2001, p. 2-30)

Media efforts were to be framed to educate citizens and build support for aggressive prosecution (OJP, 2005b). The message is to be "gun crime means hard time" (USDOJ, 2001, p. 2-31). One complication in the PSN strategy involves the mission to create a non-profit corporation or foundation to provide ongoing support for public education and media efforts. U.S. Attorneys are prohibited from forming such non-profit organizations. Therefore, other members of the task force were asked to take the lead in creating such entities to ensure the sustainability of outreach efforts (USDOJ, 2001).

Accountability

U.S Attorneys are required to report on the implementation and impact of PSN twice a year. A formal report is to be filed on January 31 and July 31 of each year (USDOJ, 2001). A form for such reporting was developed and covers four areas:

1) the nature of partnerships with federal, state, and local agencies,
2) how gun crime is being strategically addressed (the nature and extent of gun crime, the strategies employed, and how impact is measured),
3) the media strategy, and
4) the training conducted and/or attended.

In the final analysis, the officials from the Department of Justice, Office of Justice Programs, counsel the U.S. Attorneys and those participating in the adoption efforts that

the success of Project Safe Neighborhoods will be based on the ability of multiple agencies to collaborate effectively.

> The effectiveness of Project Safe Neighborhoods is based on the ability of federal, state, and local agencies to cooperate in a unified offensive that is led by the United States Attorney in every one of the 94 federal judicial districts across America.
>
> (OJP, 2005b, p. 1)

The Rewards and Challenges for Research Design

In the largest sense, this study attempts to enhance scholarship and inform policy not by looking at whether or not a policy reduced criminality or crime, but what factors increase or inhibit the willingness and ability of a jurisdiction to actually put that policy in force. For policy makers, such knowledge could provide immense efficiencies in terms of funding jurisdictions or agencies that are both willing and able to adopt the policy, thereby enhancing the potential benefit of federal funding. However, most criminal justice policy research has focused on outcomes, such as crime reduction, after – and assuming – policy adoption has taken place. Very few studies have attempted to build understanding about the context in which adoption is most likely to take place, take place with the most fidelity to legislative intent, and take place most fully.

Chen (1989) and other scholars writing on the need for zealous, theory-driven program evaluation, note that too often policy adoption or program implementation is viewed as a black box. Success or failure in the outcome measure is assessed without well-defined and documented measures of the degree to which the core elements of the policy were put in place. For policy-makers, this limits the ability to improve policies or funding criteria. Often policy makers, and those attempting to evaluate the effect of

policy adoption, do not have the luxury of in-depth case studies to determine the extent to which core elements or protocols prescribed actually were followed (Weiss, 1998).

Both theory and research indicate that official reports may fail to capture the reality of adoption (GAO, 2003; NIJ, 2000; Roth et al., 2000). Research attempting to gauge the efficacy of a program, such as PSN, often assumed policy adoption based on formal reports. Studies of PSN have used formal self-reports of policy adoption and have reported universal compliance, at least to some degree.

> Every district seems to have experienced an increase in collaboration and planning among local, state, and federal law enforcement agencies
> (Ludwig, 2005 p., 690).

Ludwig's (2005) assessment that PSN increased every district's inter-agency collaboration and planning was based on official reports. However, surveys with PSN members call the validity of those official reports into question. District representatives preparing the reports may vary in their definitions and interpretations of the policy, or some may have decoupled goals from actual performance. Comparing surveys of PSN research partners to the information contained in official reports indicates a reason to question the sole reliance on official reports to provide valid and reliable measures of policy adoption.[9] One research partner surveyed noted that even though members of the task force were listed in the official report, the task force existed only symbolically, did not meet, and that the PSN effort was planned and directly by staff in the U.S. Attorney's office. According to this research partner, this form of adoption resulted in increased federal prosecutions, but no progress toward collaboration and cross-agency strategic

[9] The survey conducted by the PSN research partners is explained later in this chapter, and the survey instrument appears in Appendix A. Research partners were assured that their direct responses would not be linked to their name or district, so the quotes are not attributed.

planning, "...prosecutions may have been up, but there appears to be no meaningful bonds that were made in this federal/state interagency project."

Similarly, while all PSN districts provided evidence of a legal contract with a research partner, surveys of the research partners indicate that the presence of a contract with a researcher or research team was not always a valid indicator of the intent or ability to engage in strategic planning. Responses from research partners indicate aggressive strategic planning efforts in some districts. One research partner described task force efforts to seek out information from a wide variety of sources including "... data from corrections, schools, police, sheriff, plus local interviews to determine local government crime issues." In contrast, other research partners indicated that data-driven decision-making was actively discouraged despite the presence of the research contractor. One researcher indicated that "[the researchers] were explicitly told by the USA [U.S. Attorney] that they were not interested in using data to identify problems." Discrepancies between survey responses and formal reporting also indicate that collaborative implementation of programs may, in some cases, be over-reported. Despite reports of universal adoption, research partners offered counterclaims, such as "...the task force has not yet chosen and implemented an intervention, so there is nothing yet to evaluate." Given the threats to the reliability and validity of measures that rely primarily on formal statements of compliance with PSN adoption, the construction of policy adoption measures is of great import.

The Need to Address Policy Adoption by Element and in the Aggregate

Because the elements of policy adoption involve potentially different protocols and processes, those elements will be constructed as variables, and those variables will be

aggregated to create an overall measure of adoption and patterns of adoption. For example, enhanced federal prosecution of gun offenders will be defined as one of these lower-level dependent variables or measures of an element of policy adoption. However, an argument can be made that patterns of policy adoption could result in scenarios that would be associated with static or declining federal prosecution of gun offenders. An example would be a district in which the collaborative task force planning process informed by research, resulted in the task force deciding that enhancing local and state prosecution of gun crimes, as opposed to federal prosecution, would be the most effective within the context of their district. Similarly, a district that identified gun carrying by parolees as the major source of gun crime and social support programs as potentially the most effective means to lower that recidivist activity might craft a range of prevention-based services that actually lowered federal prosecutions.

Definitions of implementation success also are complicated by the fact that while PSN is framed as a unified policy, adoption or rejection of one element of that policy does not assure adoption or rejection of the other elements. For example, research-driven strategic planning is mandated as an element, but the ability to produce good information and create a plan does not guarantee that task forces will be willing or able to translate that information into programs aimed at reducing gun crime. Similarly, adopting a wide range of programs can be done based on history or the interests and attitudes of the group, but in the absence of any meaningful research.

Research Design

The Population Under Study

PSN is a full coverage, non-competitive federal program. Funds are distributed to each of the ninety-four federal judicial districts. In this case, the entire population, rather than a sample from the population will be studied. The only districts excluded from the research were the four serving U.S. territories. Given the differences in governance and the lack of consistency across data sources between districts within the United States and those districts in unincorporated territories and commonwealths, these four districts were eliminated.

Analytical Strategy

From a research standpoint, a major limitation of recent federally-incentivized criminal justice policies is that they are designed as full coverage or non-competitive, so that funding is – if not universal – it is virtually so.[10] Ideally, to test a model that predicts how the context and the perceptions of decisions and decision-makers affect the level of policy adoption of an incentivized criminal justice policy, would involve a true experimental design with districts randomly chosen for a funded group or for a control group. While a true experimental design is the gold standard for research and evaluation, full coverage programs are a reality, and dealing with this limitation has been addressed in the literature on research and evaluation design (Chen, 1989; Rossi, Freeman, & Lipsey, 1999; Weiss, 1998). Many strategies, including reflexive control designs using time series, simple pre-post studies, or connoisseurial assessments are utilized for full coverage evaluations (Rossi et al., 1999). However, in this case, the mission of the

[10] An example is DOJ's offender reentry, "Going Home" grant. This grant is non-competitive so funding has been received by all states (OJP, 2005b).

research is not a classic study attempting to measure the effect of a treatment and link that effect back to factors in the subjects or entities under study. In this case, the mission and design is much simpler and better suited for study with a full coverage sample.

In this study there is no treatment component in the traditional sense. Rather the goal of the research is to determine if certain factors in the external environment of each district make that district more or less likely to adopt the policy. Such a question lends itself well to a multiple regression analysis (Allen, 1997). For each case, or district, multiple factors within a model were defined and tested to determine the extent to which the model predicts variation in the level of policy adoption, and the extent to which each of the factors in the model contribute significantly. Three dependent variables for the three core elements of policy adoption were constructed. The scores then were normalized, and the model tested on the aggregate policy adoption score, using Ordinary Least Squares (OLS) regression. This allowed the external competing factors model to be tested for its ability to predict variation in overall adoption and in each of the elements. The assumptions and limitations of the use of a multiple regression analysis are discussed at the close of this chapter.

Beyond Regression Analysis

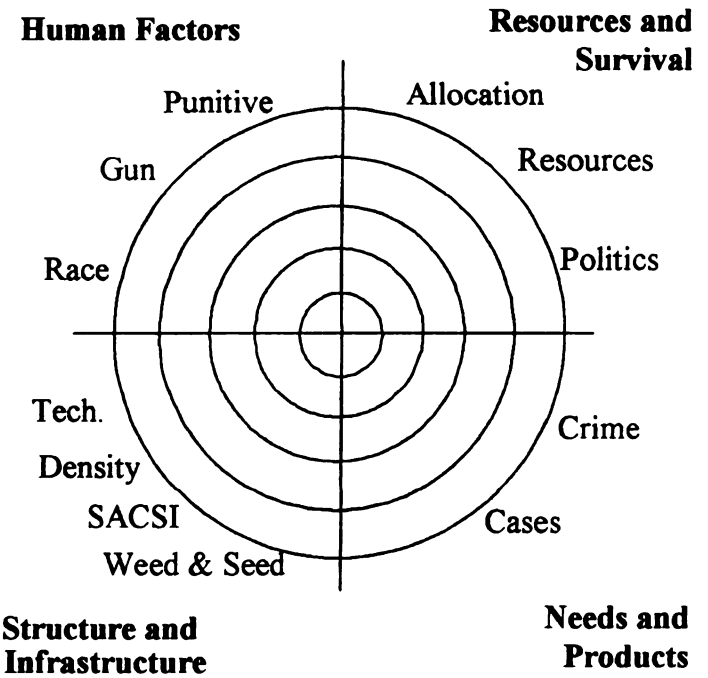
Risk theory predicts that patterns of policy adoption are likely to occur as a means of managing risk. Given that, districts will be ranked on levels of implementation for each policy element. Districts will be sorted to determine if patterns of policy adoption reflecting symbolic, recognition-based decision groups and strategic groups emerge. The attributes of those groups will be analyzed, and research questions formulated to inform

further testing of the two remaining levels of the model: perceived risk to agency decision-makers, and risk factors within the task group.

The Model and the Hypotheses

The external competing factors model that will be tested in this study is illustrated in Figure 14. The model is divided into four sectors: needs and products, structure and infrastructure, human factors, and resources and survival. The central research question is the extent to which this model of external competing factors can predict the level of policy adoption of PSN. To address this general question the following hypotheses will be tested.

Figure 14. The External Competing Factors Model



Hypothesis 1. ***The external competing factors model will predict the level of PSN policy adoption.***

The first hypothesis to be explored was the degree to which the model predicts the level of policy adoption. It is theorized that to truly understand the risk or benefit of adopting a policy such as PSN, that lowered risks and higher benefits in each of the sectors will affect the level of adoption. The influence of each of the variables in the

model are outlined in the following sub-hypotheses, each of which is based on the hypothesized influence of the sectors within the general model.

Hypothesis 1A. Within the needs and product sector of the model, the greater the need for the product associated with policy adoption, the greater the level of implementation.

The degree to which the proposed policy provides a product or service that is needed in the jurisdiction is theorized to lower the risk of policy failure. In this case of Project Safe Neighborhoods, since the product or service promised by the federally incentivized policy is the lowering of gun crime, a jurisdiction with no – or exceedingly low -- gun crime would be hypothesized to have a lower potential return on investment for adoption than a district with a higher gun crime rate, in which the costs of adoption could be outweighed by potential benefits.

Hypothesis 1B. Within the structure and infrastructure sector of the model, the greater the congruence of the competencies and the congruence of the structures within the adopting jurisdiction with those needed for policy implementation, the greater the level of policy implementation.

The structure and infrastructure within the implementing jurisdiction is hypothesized to influence the degree to which policy implementation is a risky endeavor. Jurisdictions that have experience with similar programs are hypothesized to have increased competency with related policies and, therefore, a lower risk associated with adoption. If the infrastructure is congruent with the framework of the policy and supportive of the policy, the risk also should be lower. In this case, since the policy requires groups to be formed that use data-driven strategic planning processes to address gun crime, it is hypothesized that two facets of the implementation environment could influence the capacity and the level of risk. The degree to which information technology

is integrated into public agencies is theorized to be linked to the general competency with data collection, aggregation, and system interoperability. These are the types of infrastructure capacities that should enhance inter-agency strategic planning efforts and decrease the risk of failure. Population density also is proposed to increase or decrease the risk of failure. Highly diffuse, very rural, low population districts are proposed to be less congruent with the policy structure. PSN policy mandates that task groups from a broad array of agencies work closely across governmental levels and across agencies to research, plan, frame, and implement gun policies. For very low density districts, agencies are widespread, federal officials (such as ATF or FBI) may not have a presence in the district, and the locus of the proposed programs or interventions may be difficult to determine.

Hypothesis 1C. Within the human factors sector, the greater the congruence of public attitudes with the mission of the proposed policy, the higher levels of policy adoption.

For the human factors sector, the model predicts that attitudes that are congruent with the policy would be associated with higher levels of adoption. A district in which the public and interest groups supported more stringent gun regulation, were more punitive, but felt lower levels of racial threat, were hypothesized to be more supportive of PSN adoption. Measured as codified laws or public action, attitudes that support tough restrictions on gun use and ownership and higher punitiveness should lower the risk that that PSN policy goals will be inconsistent with local norms and lower the risk of opposition. In terms of attitudes toward minorities, racial threat theory would predict that in localities in which the dominant population group imprisons minorities at rate greater

than their percentage in the population, that the dominant group would oppose limits on their ability to defend against the perceived threat and would oppose higher levels of control of guns. An alternative prediciton would be that greater the racial threat would lead to support for the aggressive prosecution component of PSN (Liska, 1997).

Hypothesis 1D. Within the resources and survival sector of the model, the greater the degree to which the policy increases the resources and survival capacity of the adopters, the greater the level of policy adoption.

The risk associated with policy adoption is theorized to be partially based on the degree to which the resources provided by the federal program enhance the overall well being of the decision-makers and citizens of the jurisdiction, when taken in the context of the costs of policy adoption. If the fiscal resources provided are low, that increases the likelihood that - given some level of fiscal, human, time, and political investment required for policy adoption – the return on investment might be low and the policy at higher risk of failure. The need for funding in specific areas also may affect the perception of risk versus gain. If the allocation provides resources in a critical area of need, that additional infusion of funding may lessen an existing risk. A policy such as PSN, in which federal prosecution of gun offenders can and does result in federal incarceration of those offenders, provides an opportunity to cost shift. Especially in jurisdictions with low levels of fiscal effort for correctional systems, there could be considerable risk reduction by shifting the cost of incarceration to the federal government. In terms of political capital and survival, it is likewise hypothesized that it would be less risky for a local official to adopt policies if those policies were championed by his or her political party as opposed to those offered by the opposition.

Hypothesis 2. The external competing factors model will differentially affect the elements of policy adoption.

The second general hypothesis focuses on the differing elements of policy adoption that are imbedded in the adoption of complex, multi-goal policies, such as PSN. Theory informing the external factors model would predict that the elements of policy adoption would be differentially affected by external factors due to differing risks associated with each. The risk associated with each element would depend on the ability of the district to perform tasks associated with that policy element and the potential gains or losses associated with its adoption.

Hypothesis 2A. Adoption of collaborative programs should be associated with all sectors and factors within the model.

Since collaborative implementation of programs requires broad-based participation from multiple agencies, all sectors of the model - need for gun violence intervention, experience and competencies with similar programs and with planning processes and structure, congruence with local attitudes, and increased political and fiscal resources – should enhance the level of policy adoption.

Hypothesis 2B. Adoption of research integration into strategic planning should be most influenced by the structure and infrastructure sector within the model.

To integrate research into strategic planning, having both a technical infrastructure and a culture that supports research-driven decision-making would be hypothesized to be key to the adoption of this policy element. So while applying research to gun violence issues would involve competing influences from all the sectors and factors in the model, it would be hypothesized that the factors in the structure and infrastructure sector of the model would assert the most influence.

Hypothesis 2C. ***Adoption of enhanced federal prosecution should be most strongly influenced by the factors in the needs and products sectors and those in the resource and survival sector.***

Increasing federal prosecution of gun offenders can be accomplished with little in the way of collaboration across agencies in a jurisdiction. In the most narrow adoption context, if resources were sufficient and were targeted toward the hiring and training of federal prosecutors, and providing there was sufficient gun crime to allow for an increase in such prosecutions, this policy element could be achieved. As will be discussed in the analysis of Hypothesis 3, this policy element is the one which is hypothesized to be the most likely candidate for recognition-based, or narrow, adoption and adoption to the exclusion of other elements. In practice, narrow policy adoption also could involve recognition-based groups, beyond the office of the federal prosecutor, but limited to those most intimately involved in the apprehension and prosecution of gun offenders, namely state and local prosecutors and law enforcement officials. The ability and willingness of local and state prosecutors and law enforcement to support protocols to apprehend and prosecute gun offenders is hypothesized to be influenced by all the factors in the model, but bounded by the level of gun crime and enhanced by the level of political and fiscal capital the policy would provide. Therefore, all elements of the model are theorized to influence the acceptability of prosecuting gun offenders, but the needs and product sector and the resources and survival sector are hypothesized to be most critical.

Hypothesis 3. ***Patterns of policy adoption will be found that reflect symbolic groups, recognition-based decision-making groups, and strategic groups.***

Theories on the ways in which groups deal with the risk and costs of participating in collaborative enterprises reflect three patterns of group interaction: symbolic,

recognition-based groups, and strategic groups (Comfort, 2002, 2005). While the dynamics of groups will differ, and these patterns are proposed to fall along a continuum, if the hypothesis be correct, the expectation would be examples of extremes, or pure forms, of these groups could be distinguished. Given the nature of PSN, the three patterns reflecting risk reduction group dynamics are hypothesized to be symbolic, recognition-based, and strategic.

Despite no district reporting a failure to adopt PSN, it is hypothesized that a pattern of symbolic participation will be found. Symbolic groups, in their purest or most extreme form, would be those that do not implement any element of the policy. Another means of reducing the cost and risk of investing in incentivized, cross-entity collaboration is to limit active participation to a recognition-based group. In other words, group members that share very similar core goals, lexicon, and protocols can communicate and operate at a lower cost than groups that must expend resources on finding or developing common goals, common protocols, and common communication systems. In theory, narrowly-focused or recognition-based groups could involve any sub-system or closely linked sub-systems, but in practice for PSN the most likely scenario is a federal prosecution-focused group. Since PSN is based out of the Office of the U.S. Attorney (USAO) and since the USAO is accountable for reporting results, the most likely scenario for a limited and targeted group would be one centered on the protocols and processes of federal prosecution. Finally, those groups with the capacity to share information, transform that information so that is useful to all members, and to drive decision with information are hypothesized to take on a strategic or full implementation structure.

Sources of Data

As previously noted, Project Safe Neighborhoods information is available from a variety of sources. The Attorney General of the United States requires formal reports on various aspects of the program to be filed by each United States Attorney's Office (USAO) twice a year. In addition, contracts with research partners were required as part of the PSN grant, and research partners were required to provide information to a national research team, based at Michigan State University (MSU). While much of the information that is routinely collected is useful and has been integrated into the measures of policy adoption, gaps in information and limited variation in some measures required an additional survey to be conducted.

Research Partner Survey

A survey instrument was drafted and constructed as an electronic form. The survey focused on strategic planning within the district's PSN task force and included closed-ended, numerically-coded questions using modified Likert scales, yes or no responses, and open-ended fields for comments and clarifications. The survey form appears in Appendix A. The research partner or lead researcher of the research team under contract with the district's U.S. Attorney's Office (USAO) was identified. The names and email addresses for all research partners were identified and entered into a database. The electronic form and instructions were emailed to the research partner of record. To promote candor, research partners were assured that their responses would not be specifically identified with their district. Surveys were returned via email or were faxed. Three formal email communications were used to follow-up with research partners who did not respond within the requested timeframe. During that timeframe, faulty

contact information was corrected and messages resent.[11] If responses were still not forthcoming, phone calls were made and responses elicited. Of the 90 federal judicial districts (excluding the territories), seventy-nine researchers, or 87.9 percent, completed the survey.

Formal Reports from the USAO to the U.S. Attorney General

Formal reports are mandated to be filed twice a year by each United States Attorney's Office to the Attorney General of the United States. Officials of the U.S. Department of Justice determine the format of the reports and the material that is to be reported during that period. While some remain consistent, questions may vary from reporting period to reporting period. These questions include lists requiring the responder to check all that apply, modified Likert scales, and narrative sections. The questions that were used to construct scales are listed in Appendix B.

Secondary Data Sources

Secondary data sources were used to construct independent variables on external factors and are discussed specifically under the section on independent variable construction.

Data Reports to the PSN National Research Team

District research partners are to submit information to the national research team on a variety of gun crime measures in the district. To be completely in compliance with data submissions, researchers submit monthly reports on federal and local gun crime

[11] Some email addresses were originally miscoded, one research partner had passed away and several had changed positions, so the lists were updated with those researchers performing the task at the time of the survey.

prosecutions, arrests and seizures for gun possession, arrests and reports of gun crime and crimes involving the use of a weapon, calls for service on gun-related incidents, and illegal firearm sales and interdictions. Researchers coded data submissions according to the criteria listed in Figure 15.

Figure 15. PSN National Research Team Data Quality Rating Scale

Very good	Submitted most or all of the requested variables in monthly form
Good	Submitted most or all of the variables in monthly form and usually some additional ones in place of missing variables
Poor	Submitted some data in monthly form but it is severely limited (generally only URC data)
Very poor	Submitted limited variables in annual form or submitted data that was hard to interpret
None	No data submitted

Assumptions and Limitations

While ordinary least squares (OLS) multiple regression analysis is a robust tool and well suited to the framework of this study, there is a flaw in the application of this tool to this population. Federal judicial districts are nested in states. Linear model analysis assumes linearity, normality, homoscedasticity, and independence. In the case of federal judicial districts, we cannot assume that the last two assumptions are true. The influence of the state in which the district is nested may mean that the amount of variance that policy adoption exhibits across the independent variables may be influenced by that nesting. This nesting also threatens the assumption of independent observations (Allen, 1997). Ideally, this problem would be addressed by using hierarchical linear modeling (HLM). However, only twenty-four states have multiple districts, and the greatest

nesting occurs in California, New York, and Texas in which the highest number of nested districts is four. This nesting pattern is insufficient to meet the requirements of HLM (Raudenbush & Bryk, 2002). Another option to control for the effect of nesting is to insert dummy variables to control for the influence of each state (Allen, 1997). For this population, twenty-four such dummy variables were required. Survey responses limited the number of cases to seventy-nine. Regression models were run with and without the inclusion of these variables, and the affect of the full model and restricted model were analyzed. The inclusion of the state dummy variables tripled the number of independent variables in the model from twelve to thirty-six, increasing the degrees of freedom to an untenable level. As illustrated in Appendix C, only two dummy variables rose to significance. The model was run including dummy variables for these two states. One state was significantly associated with higher levels and one with lower levels of adoption. In comparing the models with and without the dummy variables for these two states, the results remained consistent as the same variables rose to significance under either condition. The state effects are discussed in Appendix C, and the simple model without dummy variables was employed in the study.

Additional diagnostics were conducted to assess the possibility of collinearity, or the problem that independent variables will be highly correlated, thereby inflating standard errors and increasing the likelihood that a false null hypothesis will be rejected (a Type II error). Analyses were conducted to identify relationships among independent variables that could lead to problems with collinearity in the model (see Tables C2 and

C3, in Appendix C).[12] Some significant associations did exist among variables. The level of violent crime was significantly associated with the number of federal gun cases brought by federal prosecutors, with population density, with the number of prisoners per capita, and with the level of the allocation (which, as this is based on a modified per capita funding formula) is highly related to the number of residents in the district. Crime was negatively related to the per capita spending on an inmate per year. The number of gun cases brought by federal prosecutors also was significantly related to population density and to the allocation. Cases were negatively related to the restrictiveness of gun laws. Levels of racial threat were higher in districts that were more punitive and had more Republican leadership. Gun laws were more restrictive in higher population districts. More punitive districts spent less on inmates. The presence of a Weed and Seed program was significantly associated with high crime and high allocation districts. These relationships indicate potential problems with collinearity could be present in the model. Therefore, further diagnostics were performed.

The variance inflation factor (VIF) and its inverse, tolerance (TOL) were computed (Appendix C). Tolerance statistics for the restricted model ranged between .56 and .92, which, according to Fox (1991) is well within the acceptance range. Linear dependence was examined using a condition index. Proportions of variance among the independent variables, found in Appendix C, indicated that none of the factors shared proportions of variance above .50 that threatened a violation of linearity. Standardized residuals and Cook's Distance (D) statistics were computed and reviewed. As suggested

[12] A correlation matrix was constructed for scaled variables, an analyses of variance (one-way ANOVA) were conducted to gauge relationships between categorical and scaled variables, and Chi Square analysis compared categorical variables.

by Berk (2004), the studentized residuals and the Cook's D values were examined, and no problematic cases were identified or deleted.

Summary and Introduction to Variable Construction

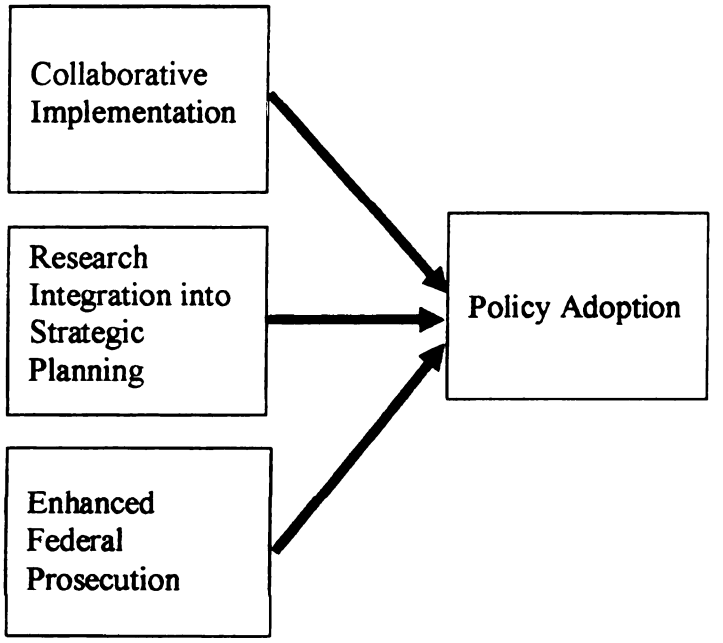
This chapter provides an overview of the theory driving the external level of the model. Along with testing the hypotheses related to competing external factors model and the sectors within the model, if is hoped that this investigation will help to hone questions to be posed and answered by further research into the context of the agency and task group levels of the full model. In addition, the construction of measures of success for these complex, incentivized policies poses particular challenges, which this research effort strives to overcome. Because the construction of elements of policy adoption pose particularly interesting and important challenges for this research, the construction and the description of variables are covered in some detail in the following chapter.

CHAPTER SEVEN:
VARIABLE CONSTRUCTION AND DESCRIPTIVES

Policy Adoption Elements and Measures

PSN is not a unitary policy in any sense. True adoption of PSN entails the adoption of core policy elements framed by the Department of Justice. Those elements can be characterized as strategic planning that integrates research into decision-making, collaboration among federal, state and local groups to craft and implement programs, media outreach, training, and enhanced federal prosecution of gun offenders. Therefore, to begin to capture the extent to which PSN actually is adopted by the districts, separate measures would need to be developed for each of these core elements. However, formal reports from the United States Attorneys' Offices (USAO) included documentation from all districts that the media partner for each district had adopted a media outreach strategy, and that training had been provided. Since no variation was found in these two

Figure 16. Diagram of Policy Adoption and Policy Adoption Elements



policy elements, they effectively became constants and hence were not included in the policy adoption models. The remaining three elements of policy, illustrated in Figure 16, became the component elements of PSN policy adoption.

Collaborative Implementation

The policy element of collaborative implementation (collaboration) was constructed from the formal reports submitted by the USAO. All districts reported cross-agency collaboration so that direct responses provided no variation. Therefore a measure was constructed using a listing of programs reported to be implemented as part of the PSN process. In the report form the USAO, the United States Attorney was to place a check next to each strategy the PSN task force had implemented. To determine which groups were active in the collaboration, the programs were categorized by group. An example would be whether law enforcement agencies were an active part of PSN. If the report indicted that any law enforcement-focused intervention, such as directed patrol or street-level enforcement, were implemented as part of PSN, that district would be given one point for engaging law enforcement. Unlike the direct questions about collaboration, there was variation in these measures. The responses that were used to construct the measure are described below and listed in Appendix B.

The following responses were coded by category, with a point given if any intervention pertaining to the category were checked, and zero points given if none of the interventions were checked. The exception in this scoring was for the engagement of the community. Unlike the other categories, for which there were one or two possible responses, community involvement had ten possible interventions listed. Over all the districts, the mode value for community engagement was two. Therefore, to discriminate

between those districts with no or little engagement of community members from those with more active engagement, districts with responses above the mode value were given one point and those below the mode value received zero points for this category.

The maximum possible score for collaborative implementation was seven and the lowest possible score was zero. The questions and the scoring for this are as follows.

1. Federal Prosecution: check box indicating yes or no.
2. Enhanced Local and State Prosecution: check box indicating yes or no.
3. Law Enforcement: check boxes for directed patrol or street-level enforcement.
4. Parole and Probation: check boxes for offender notification meeting or offender home visits.
5. Community Programs: districts reporting more than the mode value were scored as one (see Appendix B).
6. Supply-Side Intervention: check box indicating yes or no.
7. Gang or criminal organization interventions: check box indicating yes or no.

Research Integration into a Strategic Planning Process

To construct a measure of the integration of research into the strategic planning, three sources of information were used: the research partner survey, the formal reports by the United States Attorneys, and the data submitted to the PSN national research team. The following questions were used from the research partner survey (see Appendix A.). Question one, part B asked the degree to which data were translated into decision-making. Answers were given on a four-point scale indicating that data were not translated (score of 1) to data had been used to create programs or strategies (score of 4). Question three, parts A and B were yes or no questions, asking first whether the research

team was able to conduct an analysis of gun crime in the district and, if so, whether the task force used the information to shape policy. The district scored a one if an analysis had been conducted, and the information from that analysis had been utilized. The district scored a zero if either were not true. Question six asked about the overall impact of PSN in terms of the use of problem-solving processes and was scored on a five point scale from no impact (score of 1) to PSN creating an environment in which data analysis drives decision making (score of 5). From the formal reports from the USAO to the U.S. Attorney General, a three-point scale graded the helpfulness of data and research. A score of one reflected the response "not really," a score of two reflected "somewhat," and a score of three indicated "very helpful." The last measure used to construct this variable was the quality of the information submitted to the PSN national research team. Because of the overall poor quality of data reporting, a limited scale was used. Each year the PSN research team reported the data received as falling into five categories reflecting its overall quality from none, very poor, poor, good, or very good. A binary scale was used to rate data quality. If the mode value for data in the PSN period (2001 to 2004) were good to very good, the district was given a one, if not the district received a zero. This construction created a scale with possible values between three and fourteen.

Enhanced Federal Prosecution

Two measures of enhanced prosecution were used to create a factor score for the measure of enhanced federal prosecution. The number of federal cases for gun violence was compared for the year prior to PSN implementation (2000) and four years into the policy adoption process (2004).[13] The numeric increase in cases captures some

[13] The cases used were those filed under 18 U.S.C. 922 and 924.

information about the increase in effort in the district, but fails to place that number in the context of the population of the district. Therefore, the numeric change and the change in the per capita prosecution rate for the districts were reduced to a factor score using principle component analysis and an oblique rotation. One factor was extracted. The factor loading was .66, and the one extracted component explained 82.9 percent of the variance.

Overall Policy Adoption Variable

To create an overall implementations score, the scores from the three policy elements were converted to a standardized form and added.[14]

Describing the Policy Adoption Elements and Overall Score

For the policy elements of collaborative implementation and prosecution, measures were available for all ninety districts (Table 1). For research integration, and therefore for the overall adoption score, seventy-nine districts had valid measures. Collaborative implementation scores indicate that no district reported a total absence of program elements. Measures of central tendency and dispersion for the elements of policy adoption and the overall level of policy adoption are listed in Table 1. The average across districts indicated collaboration in 4.33 areas out of a possible seven. Research integration measures indicated that some districts reported no integration while others reported the maximum levels. The measure of federal prosecution is a factor score, and the overall policy adoption score combined standardized values.

[14] Scores were converted to z scores.

Table 1. Measure of Central Tendency and Dispersion for Dependent Variables

	N	Mean	Minimum	Maxium	Standard Deviation
Collaborative Implementation	90	4.33	1.00	7.00	1.78
Research Integration	79	8.73	4.00	14.00	3.20
Federal Prosecution	90	0.03	-1.73	4.44	1.00
Overall Adoption	79	0.07	-3.99	6.79	2.08

Since the sample size is less than one hundred, the Shapiro-Wil W statistic was used as a test for normality. The null hypothesis that the distribution was not normal could be rejected (at $p<.01$) for all distributions except research integration. A review of that test, and normal probability plots and box plots generated using the Univariate procedure and tests of normality in SAS indicate a fairly normal distributions for the overall measure, federal prosecution, and collaborative implementation. The null hypothesis for a non-normal distribution for the research integration measure could be rejected, at the 0.06 level of significance. Review of the normal probability plots and box plots indicate a research integration distribution that skews right.

Construction and Description of Competing External Factors

In accordance with the model, variables were constructed to reflect concepts within each of the four sectors. As the independent factors are related to the forces proposed to enhance or inhibit policy adoption, the information is taken from the year 2000, the year immediately preceding implementation, as this reflects the conditions that faced decision-makers as the policy was introduced. Unless otherwise noted, the measures are for the year 2000 and for federal judicial districts. For scaled independent variables, measures of central tendency and dispersion are illustrated in Table 2. Frequencies for dummy variables are found in Table 3.

Table 2. Measure of Central Tendency and Dispersion for Scaled Independent Variables

	N	Mean	Min.	Max	SD
Need and Product Sector					
Crime	89	490.63	43.58	1507.36	253.85
Federal Gun Cases	90	2.88	0.5	23.82	7.5
Structure and Infrastructure Sector					
Information Technology	89	7.08	2.00	11.00	1.90
Population Density	90	362.32	1.26	9358.98	1145.13
Human Factors Sector					
Racial Threat	90	0.34	-0.09	0.76	0.16
Gun Laws	90	9.19	-10.00	76.00	18.77
Punitiveness	89	405.99	114.61	775.09	151.01
Resources and Survival Sector					
Resources	90	24,413	9,131	72,517	10,043
Allocation	90	584,841	285,000	1,300,000	345,347
Politics	87	0.85	0	2	0.64

Needs and Product Sector

The stated overarching goal of the PSN policy is the reduction of gun crime. Therefore, a measure that appears to best capture the level of need in the district is the level of such crime in the federal judicial district. Uniform Crime Report (UCR) data were used. Since gun crime is not a specific category within the reporting structure, the level of reported crime in four violent crime categories was used as a surrogate measure. Information on the number of homicides, robberies, aggravated assaults, and rapes were gathered and organized by judicial district (FBI, 2000). Rates of reported crime were computed as the rate per one-hundred thousand in the population for each district (USCB, 2000). Crime and census data from 2000 were used to indicate the level of need prior to the initiation of the incentivized policy. As noted in Table 2, these rates ranged from a low of just under 44 crimes per 100,000 in Eastern Oklahoma and 85 per 100,000

in North Dakota to highs hovering around 1,500 in the District of Columbia (1,465) and Northern District of Illinois (1,512). The mean rate was 490, a rate close to that in the Southern District of California (489), and the Middle District of North Carolina (496).[15]

A second variable used to capture the degree of need for gun crime intervention was the number of federal gun cases per 100,000 people in the district in 2000, the year prior to PSN initiation. Information on the number of cases brought was submitted to the PSN research team and was available for all ninety districts.[16] The rate for federal gun crime cases ranged from 0.05 to 23.82. The mean was 2.88. An example of a district falling around the mean is the Northern District of Texas. The largest city is this district is Dallas, and 176 federal gun crime cases were prosecuted during the year 2000.[17]

Structure and Infrastructure Sector

This sector deals with the structural factors that may influence policy adoption. The three concepts to be captured within this sector were the general level of competence with technology in the public sector, past history with programs with like elements to PSN, and the district's population density. Four variables were constructed to reflect these concepts.

The general level of technological competence in the district is a scale constructed from Barrett, Greene and Mariani's rating of public sector competency with computer technology (2001). While rankings could have been as low as 0, the minimum rank was

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[15] This variable uses a state-level measure. As noted in the discussion of assumptions and limitations in the previous chapter, in twenty-four instances states have more than one district. As discussed in Appendix C, the limitations on this research, including the size of the population, and the pattern of nesting did not allow for hierarchical linear modeling or the use of dummy variables to control for state level influences.

[16] The cases used were those filed under 18 U.S.C. 922 and 924.

2, the mean score was 7.08 and the highest was 11 (Table 2). As part of the Government Performance Project, more than one thousand state officials were surveyed. To assess the state of information technology (IT), the officials were asked to provide information on the following areas: enterprise-wide technology systems, central coordination of information, multi-year information technology planning processes, ease of procurement of information technology, training for IT staff and end users, requirements for cost-benefit analysis or return on investment (ROI) for IT projects, use of IT by citizens, and ease of use to conduct state business (Barrett & Greene, 1999; Barrett et al., 2001).

The history of implementing similar programs within the district was captured in two dummy variables.[18] The first was a self-report by U.S. Attorneys in the semi-annual reports of the presence of Weed and Seed, a program that shares common elements with PSN. The Weed and Seed program encourages community and governmental collaboration to address crime and neighborhood decay through combined community

Table 3. Frequencies for Independent Variables for Similar Program Implementation

		Frequency	Percent
SASCI			
	Present	10	11.11%
	Absent	80	88.89%
	Missing	0	0.00%
Weed and Seed			
	Present	66	73.33%
	Absent	21	23.33%
	Missing	3	3.33%

[17] While these factors are significantly correlated (see Table C2, in Appendix C), the number of cases regressed on the crime rate indicates that only about 11 percent of the variation in the number of cases can be explained by the variation in the level of crime.

[18] In both cases, a score of one indicates the presence of the program and a zero indicates its absence.

development and law enforcement efforts (CCDO, 2006). The presence of Weed and Seed programs was reported in nearly three-quarters of the districts (Table 3). The second dummy variable (value of one) indicates that a Strategic Approaches to Community Safety Initiative (SACSI) program had been funded within the district. SASCI is a policy initiative with many elements in common with PSN. The Office of the United States Attorney (USAO) is the lead agency in this research-driven, problem solving effort aimed at reduction of criminal activities (Coleman, Holton, Robinson, & Stewart, 1999). As noted in Table 3, compared to the wide adoption of Weed and Seed, only ten out of the ninety districts, or 11.1 percent, had received funding to adopt SASCI.

In the structure sector, theory suggests that policy adoption may be related to population density (Feld, 1973; McGarrell & Duffee, 1995). It is theorized that in very low density areas, where people and the criminal justice agencies that serve them are widely spread, it would be more difficult to specify a target area and more expensive, and complicated to organize the task force and routinely share information. In addition, with no economics of scale implementing programs across a wide area might be cost-inefficient. Information to construct this variable was taken from the U.S. Census (2000).

Bivarate analyses (see Tables C2 and C3, in Appendix C) indicate only one significant relationship among the structure and infrastructure factors. Having a better information technology infrastructure is significantly related ($p=.05$) to high population density in the district.

Human Factors Sector

Public attitudes translated into some measurable public action were the focus of this sector. One concept to be translated into a variable was perceived racial threat. The

measure of racial threat was constructed by comparing the percentage of white inmates to the percent of white residents. The possible scores ranged from negative one to one. The extreme scores of negative one and one are possible mathematically, but improbable in practice. What the scale represents is the level of minority over-representation in secure confinement. If the district had no white population at all, but 100 percent of inmates were white, that would be a score of negative one, in effect reverse racial threat. If the percentage of whites in the general population was exactly equal to the percentage of white in the inmate population, the score would be zero, indicating no difference in incarceration rates between black and whites. If the general population in the district were 100 percent white and all the inmates were black, the score would be one, indicating the highest possible level of racial threat. While many factors are proposed to explain the differences in incarceration rates between whites and nonwhites, this measure is used to capture the relative difference in over-representation among jurisdictions (Leiber, 2003). The greater the difference between the white prison percentage and the white population percentage, the greater the score on this measure of racial threat.

To illustrate the measure, the District of Utah's score on racial threat is very close to zero. The district population in Utah is roughly 86 percent white. The inmate population mirrors that percentage almost perfectly. Therefore, minority over-representation in the prison population as a measure of racial threat is approximately zero. In contrast, in the District of South Carolina the population is about two-thirds white (66 percent), but only 28 percent of the inmate population is white. Therefore, the racial threat measure for this district is 38 percent. In the District of Connecticut, white

residents make up roughly 80 percent of the population but only 23 percent of the prison population, resulting in a racial threat score of 57 percent.

The second variable was a scale indicating the degree to which gun sales, ownership, and carrying is regulated when compared to federal regulations. A score of zero indicates congruence with federal statutes, positive scores indicate the net number of provisions that have been codified that increase restriction on gun sales and gun ownership above the federal laws, and a negative score would indicate the net number of federal restrictions that are not reflected in the state statutes (ATF, 2000; OSI, 2000). Scores ranged from negative ten to 76 (Table 2). The most restrictive districts were those in the District of Hawaii (71) and the District of Massachusetts (76) and the least restrictive was the District of Maine (-10). An example of the differences in the level of regulation is that Maine has no restriction on sellers of ammunition while Massachusetts requires those wishing to sell ammunition to formally apply and pass a criminal background check. In Maine, ex-offenders may apply for gun permits if they remain crime-free for five years post discharge. In Massachusetts, gun ownership is prohibited for all ex-felony offenders and also for ex-offenders who were convicted for specified misdemeanors. In addition, Massachusetts has specific language prohibiting gun purchases for some other non-criminal classifications such as drug addiction or habitual drunkenness, with a doctor's certification of recovery required for the application to be approved (ATF, 2000).

A third human factors variable, punitiveness, was constructed from census data and from information on prison day-counts collected by the American Correctional Association (ACA, 2000). A rate of incarceration per 100,000 was computed as a

measure of the level of punitiveness. Punitiveness was lowest in Minnesota, Maine, and North Dakota, with fewer than 150 inmates for every 100,000 residents to more than 650 inmates for every 100,000 residents in the states of Texas, Louisiana, and Delaware.

One of the limitations of this, and the other human factor variables, relates to the fact discussed earlier that these are state-level, not district-level variables. Since districts do not function as government units for the purposes of imposing gun laws or incapacitating offenders, the overarching public acts and actions, such as regulating firearms or and imprisoning offenders, reflect state-level, rather than district specific measures.[19]

Bivarate analyses of the relationship between variables in this sector (see Table C2, in Appendix C), indicates that higher racial threat is significantly correlated with higher punitiveness, but not with more or less restrictive gun laws. Gun laws and punitiveness are not significantly correlated.

Resources and Survival Sector

Three concepts represented by variables in the survival sector were: fiscal resources provided by PSN, the level of resources currently available to the criminal justice sector, and potential political gains or losses related to PSN participation.

The resources provided by PSN variable is represented by the amount allocated to the district during one funding cycle under the PSN program (Table 2). Funding for PSN is allocated on a per capita basis, based on district population. However, the allocation has both a floor and a ceiling amount. The lowest population districts, such as the District of Wyoming with a population under 500,000, receive a base amount regardless

of population. This held true for twenty-four districts with populations below 1.36 million.[20] On the other end of the spectrum, seven districts, with populations above seven million residents, received the maximum, capped amount.[21] The district with the highest population is the Middle District of Florida with more than 9.2 million residents and the lowest population district is Wyoming with less than 500,000 residents. The mean funding amount across all districts was $584,840.57. This reflects the allocation to a district with roughly three million residents, such as the Eastern District of North Carolina.

The second variable in the survival sector is a surrogate measure for financial support for criminal justice. It is the expenditure per inmate per year, based on surveys conducted by the American Correctional Association. Information from those surveys on correctional budgets and the average daily population (ADP) in the prisons was used to compute a per inmate per year expenditure (ACA, 2000; USCB, 2000). States with the lowest investment per inmate (the districts in Alabama) expend roughly nine thousand dollars per year per inmate while the highest resourced districts, such as Oregon, will spend eight times that amount. The mean expenditure is about twenty-four thousand dollars per inmate per year, reflecting districts such as Kansas, New Jersey, and the districts of Florida. As with the variables in the human factors sector that rely on

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[19] As noted in the assumptions and limitations sector in the previous chapter, the ability to address the nesting of districts in states was constrained by limitations in the population size.

[20] The lowest allocations districts were Alabama Middle, Alabama Southern, Alaska, Delaware, the District of Columbia, Georgia Southern, Hawaii, Illinois Southern, Iowa Northern, Louisiana Middle, Maine, Mississippi Northern, Montana, New Hampshire, North Dakota, Oklahoma Eastern, Oklahoma Northern, Rhode Island, South Dakota, Vermont, Washington Eastern, West Virginia Northern, West Virginia Southern, and Wyoming.

[21] The six high population districts receiving the highest and capped amount were California Central, California Northern, Florida Middle, Illinois Northern, New Jersey, New York Eastern, and Texas Southern.

correctional system information, this variable too suffers from the limitation of being measured at the state, not the district level.

The potential political gain or loss from participation was represented by the congruence of political party affiliation (Republican) with the President in the year 2000, who proposed and championed the policy. Since a core mission of PSN is to engender collaboration among federal, state, and local leaders and programs, variables were created to represent the political affiliation of key leaders at two levels of governance, city and state. A scaled variable was constructed to represent either no congruence at the local or state level, one leader in congruence, or both of the same party as the president championing the policy, in this case a Republican. For state-level leadership the task is straight-forward. Local leadership is much more difficult to difficult to represent. A surrogate measure for the political alignment of local officials was used, the political party affiliation for the mayor of the largest city, which was also, with the exception of one district, the city with the most violent crime.[22] The reasoning for this selection was that the support for or opposition to the PSN initiative by the mayor of the largest city and the city in which violent crime was most likely to occur would have some influence over policy adoption in a key area of the district. In terms of Republican-affiliated leaders, in contrast to state leaders, 60 percent of mayors were not Republican. As some cities consider mayor to be a non-partisan office, the non-Republicans include Democrats, other party affiliations, and non-partisan mayors. In 12 percent of the districts, both the state and local leadership were aligned with the President's party.

[22] The only district for which the largest city was not the city with the highest violent crime rate was Virginia. The mayor for the city with the highest crime rate was used.

Bivariate analyses (see Table C2, in Appendix C), indicates that none of the variables in this sector are significantly related.

Summary

A major challenge to the study of policy adoption in criminal justice, and the adoption of multi-goal, federally-incentivized policies in other fields, is the difficulty defining what constitutes success and how such success can be scaled. In the next chapter, a variety of analyses will be conducted to attempt to use these variables, not just to find relationships between the external competing factors and success, but also to attempt to differentiate the ways in which external factors may inhibit or enhance the key elements that together constitute adoption.

CHAPTER EIGHT:
ANALYSIS AND FINDINGS

With the construction of the model and the construction of measures of policy adoption, the external competing factors model and the hypotheses outlined in Chapter 7 were tested. The examination proceeded from a test of the overall model to tests of the components and elements of the model.

Hypothesis 1. The external competing factors model will predict the level of policy adoption.

The first hypothesis addressed the overall research question, which is the extent to which the external competing factors model predicts the level of policy adoption. Prior to conducting a regression analyses, a bivariate analysis was conducted to investigate the relationships between the independent variables in the model and the overall level of policy adoption.[23] The results, presented in Table 4, indicate that, that all of the variables in both the needs and products sector are significantly and positively correlated. Higher levels of violent crime are correlated with higher levels of policy adoption ($p<.01$), and higher per capita federal cases filed for gun offenses are significantly correlated with higher levels of policy adoption ($p = .01$). Therefore, prior to controlling for the other factors and other sectors of the model, the need for the policy proposed is associated with higher levels of policy adoption.

Similarly, all of the factors in the infrastructure sector were significantly correlated with the level of policy adoption, and in the predicted direction (Table 4). Higher population density in the district was associated with higher levels of policy

[23] Correlations were computed between scaled variables and an ANOVA for the relationship between categorical and scaled variables.

adoption (p<.01). A better information infrastructure was associated with higher levels of policy adoption (p<.01). Districts with prior experience with a Weed and Seed Program had higher levels of policy adoption (p<.01), as did districts with prior experience with a SACSI program (p<.01). These bivariate correlations lend support for the potential importance of this sector.

Table 4. Bivariate Analyses of Policy Adoption and the Independent Variables

Bivariate Correlations		**Policy Adoption**	**ANOVA Results**			
Need and Products Sector						
Crime	Pearson Corr.	0.37				
	Sig. (2-tailed)	0.00 **				
	N	78				
Cases	Pearson Corr.	0.28				
	Sig. (2-tailed)	0.01 *				
	N	79				
Structure and Infrastructure Sector				**N**	**Mean**	**sig.**
Population Density	Pearson Corr.	0.33	Weed and Seed			0.00 **
	Sig. (2-tailed)	0.00 **	Present	59	0.60	
	N	79	Absent	17	-1.14	
Information Technology	Pearson Corr.	0.35	SACSI			0.00 **
	Sig. (2-tailed)	0.00 **	Present	9	2.17	
	N	78	Absent	70	-0.20	
Human Factors Sector						
Racial Threat	Pearson Corr.	0.08				
	Sig. (2-tailed)	0.47				
	N	79				
Gun Laws	Pearson Corr.	0.09				
	Sig. (2-tailed)	0.42				
	N	79				
Punitiveness	Pearson Corr.	0.00				
	Sig. (2-tailed)	0.98				
	N	78				
Resources and Survival Sector						
Correctional	Pearson Corr.	-0.01				
Resources	Sig. (2-tailed)	0.90				
	N	77				
Allocation	Pearson Corr.	0.12				
	Sig. (2-tailed)	0.28				
	N	79				
Politics	Pearson Corr.	0.09				
	Sig. (2-tailed)	0.41				
	N	78				

** p< .01
* p< .05

While bivarate correlations indicated significant relationships between the factors in both the needs and products sector and the structure and infrastructure sectors, no variables in either the human factors sector or the resources and survival sector were significantly correlated with policy adoption levels (Table 4.)

To test these associations while controlling for the other variables in the model, a multiple regression analysis was conducted.[24] The composite dependent variable for policy adoption was regressed on the external competing factors model. Table 5 presents the results of that regression. The model of external factors predicted 50 percent of the variation in policy adoption. In terms of the influence of various sectors of the model and factors within those sectors, the significance of their contributions to the model varied widely and are discussed under the sub-hypotheses dealing with each sector.

Hypothesis 1A. Within the needs and product sector of the model, the greater the need for the product associated with policy adoption, the greater the level of implementation.

It was hypothesized that the more a policy under consideration focused on producing a product or service that met a district's need, and the greater the level of that need, the greater the perceived benefit and the less the perceived risk of investing in policy adoption would be. In this case, the level of gun crime per capita and the number of federal gun crime cases per capita that were brought in the year prior to PSN initiation were employed as indicators of the level of need for gun crime interventions. However, though the bivariate analysis indicated that both were significantly correlated with policy adoption, once the other factors in the model were controlled for, neither significantly contributed to the model (Table 5). Therefore, in the needs and product sector, the

[24] This analysis used an Ordinary Least Square (OLS) Regression, produced using SAS software.

hypothesis that the level of need would significantly predict of the level of policy adoption was not supported.

Table 5. Policy Adoption Regressed on the External Competing Factors Model

$R^2 = .50$

N= 72

intercept = -2.20 F value = 5.04 Pr < .000

Variable	Coeff.	SE	Sig.	Beta
Needs and Products Sector				
Crime	0.00	0.00	0.17	0.15
Cases	-0.01	0.14	0.93	-0.01
Structure and Infrastructure Sector				
Information Technology	0.35	0.10	0.00 **	0.33
Weed and Seed	2.09	0.49	0.00 **	0.45
SACSI	1.90	0.59	0.00 **	0.32
Density	0.01	0.00	0.69	-0.05
Human Factors Sector				
Gun Law	0.01	0.01	0.57	0.06
Racial Threat	-0.71	1.34	0.61	-0.06
Punitiveness	0.00	0.00	0.08	-0.21
Resources and Survival Sector				
Correctional Resources	-4.89	0.00	0.03 *	-0.26
Allocation	-2.50	0.00	0.34	-0.10
Politics	0.08	0.32	0.80	0.02

** p< .01
* p< .05

*Hypothesis 1B. **Within the structure and infrastructure sector of the model, the greater the congruence of the competencies and the congruence of the structures within the adopting jurisdiction with those needed for policy implementation, the greater the level of policy implementation.***

In the infrastructure sector, all factors except population density contributed significantly to the model. The level of information technology ($\beta = .33$) and prior experience with a Weed and Seed ($\beta = .45$) or SACSI program ($\beta = .32$) were all significant. This supports that portion of the hypothesis that higher policy adoption is

associated with technological competence and with prior experience implementing collaborative criminal justice policies. However, the portion of the hypothesis that low population density would make it more difficult to structure a policy target was not supported.

Hypothesis 1C. Within the human factors sector, the greater the congruence of public attitudes with the mission of the proposed policy, the higher the levels of policy adoption.

For the human factors sector, it was theorized that the attitudes of the public and the positions of public interest groups could facilitate policy adoption or inhibit it. PSN is a policy led by the federal prosecutor and with a core element of enhanced prosecution of gun offenders who violate federal law. Therefore, it is theorized that districts in which gun laws are less restrictive than federal laws would have constituent groups that would view PSN as counter to local attitudes. The results of the regression analysis do not support this contention.

Similarly, while PSN does support prevention programs, federal prosecution and the collaboration of law enforcement and correctional agents (probation and parole) to assure arrest and prosecution are core elements of the policy. Therefore, a state with greater support for punishment, operationalized as the per capita imprisonment rate, is theorized to positively influence support for PSN. However, as with gun laws, this was not supported (Table 5).

The third variable, racial threat, was similarly postulated to be negatively related to support for PSN. If the majority (white) population felt a high level of threat from the minority (non-white) population, it is proposed that this threatened population might resist any federal program that they viewed as limiting their right to buy and bear arms to

protect themselves from the perceived threat. This third variable, as with the previous two, did not significantly contribute to the model.

Hypothesis 1D. Within the resources and survival sector of the model, the greater the degree to which the policy increases the resources and survival capacity of the adopters, the greater the level of policy adoption.

There was limited support for this hypothesis. In the resources and survival sector, political party alignment and the amount of the allocation did not contribute significantly to the model. However, the measure of current fiscal effort did[25]. Those districts with the lowest levels of per inmate funding adopted PSN at higher levels ($\beta = -.26$). This supports the contention that lower fiscal support for corrections may be related to enhanced PSN policy adoption as a means enhance the survival prospects elected or politically appointed agency leaders. Increasing federal prosecution of gun offenders could shift the cost of incarceration away from local and state coffers to the federal system. Collaborating with social support or other prevention and social intervention entities also could hold the promise of shifting costs away from, or preventing the expenditure, of criminal justice system funding. In either case, decreasing the strain and/or increasing the resources for the state and local criminal justice systems could lower the actual and perceived risks and enhance policy adoption.

[25] The word "effort" is used as it is in budgeting to denote the current amount of fiscal or other resources put to a particular purpose. This captures the concept behind the construction of the variable which is to find a means to indicate the degree to which the jurisdiction is both willing and able to support the criminal justice system. Lack of fiscal effort indicates a low level of resources available to, in this case, correctional systems.

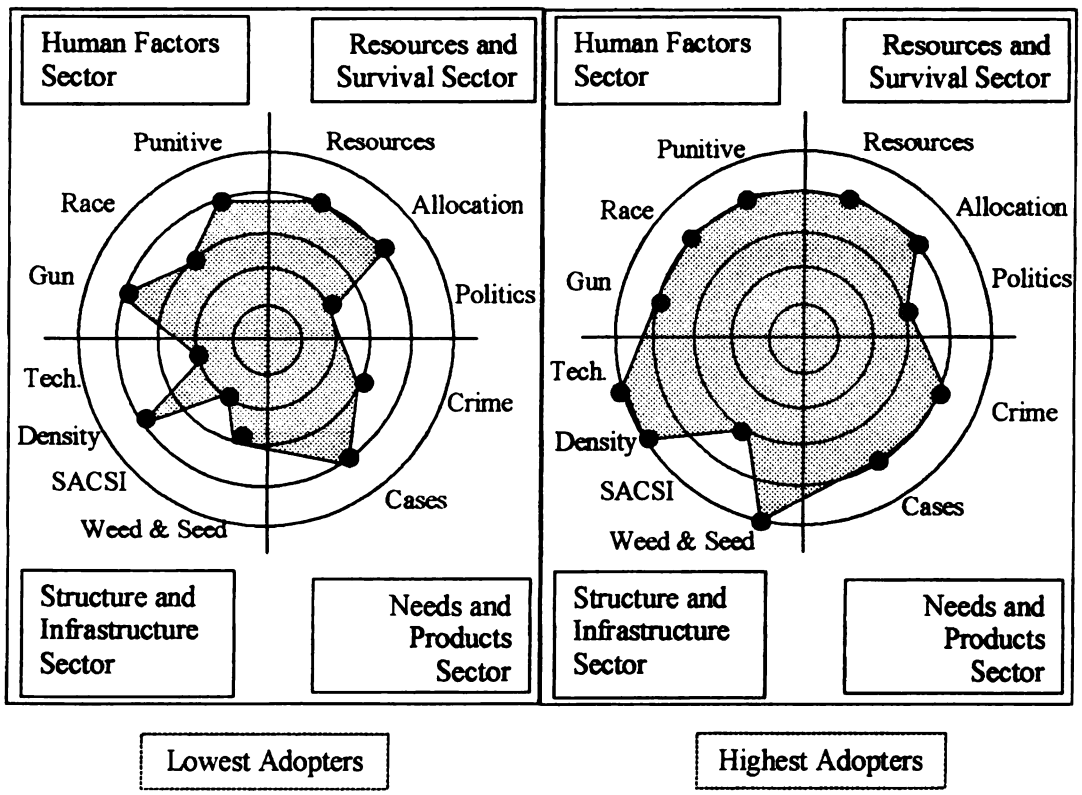
Mapping Competing External Factors

To continue the investigation of the patterns of external competing factors that could influence the level of policy adoption, a modified version of Quinn's (1991) sector map was constructed. This mapping technique has two major purposes. The mapping of variables or factors within each of the quadrants helps to visualize the influence of factors and sectors in order to spur further analysis and to focus the researcher on potentially interesting relationships among factors or sectors that warrant further investigation. Secondly, to help inform decision-makers and practitioners, the maps provide a more accessible, though simplified, visual representation of the relationships among variables captured more richly in a regression analysis.

Table 6. Lower Bound of Quartiles for Independent Variables

Lower Bound of Quartile	**1**	**2**	**3**	**4**
Needs and Products Sector				
Crime	43.58	318.33	466.81	626.09
Cases	0.50	1.27	2.68	3.73
Structure and Infrastructure Sector				
Information Technology	2.00	6.50	7.00	7.25
Weed and Seed	0.00	0.25	0.50	0.75
SACSI	0.00	0.25	0.50	0.75
Density	1.13	53.06	96.95	230.98
Human Factors Sector				
Gun Law	-10.00	-4.00	2.00	17.25
Racial Threat	-0.09	0.26	0.35	0.44
Punitiveness	114.61	313.55	386.06	482.45
Resources and Survival Sector				
Correctional Resources	9,130.97	17,514.61	23,794.56	29,244.19
Allocation	285,000.00	285,001.00	432,015.00	868,276.50
Politics	0.00	0.50	1.00	1.50

Figure 17. External Competing Factor Maps Comparing the Independent Variable Means of the Highest and Lowest Quartile of Adopters



To create the maps, four sectors were created and the variables, or competing factors, were placed within the sectors. Using the data from all the districts, four levels were constructed and represented by concentric circles on the map. For each independent variable, cases were grouped into quartiles. An upper bound was found for each quartile, and that became the scale for each level on the map. For example, for violent crimes per 100,000 in the population, one-quarter of the districts felt below 318.3, so values between the minimum of 43.6 and 318.3 were scored as a level one on the map (Table 6). Dummy variables cannot be similarly scaled, so instead the levels were simply divided

into four equal values.[26] Again, following the Quinn protocol to examine and contrast the influence of competing factors on "effective" and "ineffective" organizations, districts in the highest quadrant of policy adoption success were aggregated and mapped and compared to those in the lowest quadrant (Quinn, 1991, p. 95). For each group, the high and low adopters, the group mean for each of the independent variables was computed and mapped. As noted in Figure 17, the maps visually illustrate the results of the regression analysis and highlight the influence of the structure and infrastructure sector's influence on policy adoption.

Summary of Findings for the Broad Test of the Model

While the overall model predicted half of the variation in the level of policy adoption, some sectors contributed little. The human factors sector, perhaps because the external human factors, measured by legal and administrative actions at the state level, do not truly reflect district factors. Alternative concepts, measures, and interpretations will be discussed in the final chapter. In the resources and survival sector, one variable, the level of current correctional resources, did rise to significance. While no variable in the needs and products sector contributed significantly to the model, the bivariate correlations indicated a relationship, prior to the inclusion of other factors. The maps reinforce the findings, again indicating the preeminence of the structure and infrastructure sector and the importance of prior program experience and public agency adoption of information technologies as the two factors that prime PSN adoption. Harkening back to the literature on policy adoption, research findings suggest that structural factors may create a tipping point for adoption. Examples of policy adoption failure in both health

[26] For the politics variable, only three values were possible. Like the dummy variables, values were divided

care and criminal justice systems was found in entities in which public attitudes and professional standards supported the adoption, a need existed, and resources were provided. In those studies, traditional protocols and organizational support structures, such as accounting and data systems, were incongruent with the new policy or so poorly developed that the entity could not support change (Cunningham et al., 2000; Morley et al., 2003). To explore the idea of the structure and infrastructure sector as having a priming effect on the other sectors in the model, further analyses were conducted.

Subgroup Analysis: High and Low Technology Groups

Since aspects of the infrastructure sector appear to be significantly associated with the degree to which PSN is adopted, this sector was explored further. Districts were divided into two groups, low and high information technology groups.[27] The differences between measures of central tendency and dispersion policy adoption in all districts and in the high and low technology subgroups are illustrated in Table 7. Since original scores for information technology were discrete numbers, the groups could not be divided into equal subgroups (Table 7). While this limitation exists, t-tests indicated that there is no significant difference between groups on the independent variables at the .05 level. However, population density did differ, if the significance level is relaxed to .10.

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into equal parts, and means for the groups charted accordingly.

[27] To confirm that that these subgroups did differ on policy adoption, a one-way analysis of variance (ANOVA) was conducted, and the results indicate that the subgroups (high and low information technology) differed significantly ($p<.01$), with high technology associated with higher adoption.

Table 7. Descriptives of High and Low Information Technology Subgroups

Measures of Central Tendency and Dispersion

Sector	Low Technology				
Variable	N	Mean	Minimum	Maximum	SD
Needs and Products Sector					
Crime	54	482.33	43.56	1,465.36	243.24
Cases	55	2.59	0.50	0.07	1.65
Structure and Infrastructure Sector					
Density	55	175.22	1.13	1,023.66	231.04
Racial threat	55	0.33	-0.01	0.66	0.05
Human Factors Sector					
Gun Laws	55	7.95	-10.00	76.00	21.99
Punitiveness	55	434.40	133.18	746.50	165.28
Resources and Survival Sector					
Allocation	55	572,016.44	285,000.00	1,300,000.00	572,016.44
Resources	55	23,624.51	9,130.97	72,517.35	1,133.52
Politics	54	0.87	0.00	2.00	0.58

Sector	High Technology				
Variable	N	Mean	Minimum	Maximum	SD
Needs and Products Sector					
Crime	34	473.9	184.57	911.28	212.33
Cases	34	2.74	0.57	6	1.52
Structure and Infrastructure Sector					
Density	34	400.36	10.03	5,558.07	967.83
Racial threat	34	0.36	-0.09	0.76	0.08
Human Factors Sector					
Gun Laws	34	11.41	-6	43	12.24
Punitiveness	34	360.02	114.61	775.1	112.19
Resources and Survival Sector					
Allocation	34	614,404.32	285,000.00	1,300,000.00	309,308.79
Resources	33	25,726.79	14,104.57	54,614.13	7431.9
Politics	33	0.82	0.00	2.00	0.73

Frequencies for Dummy Variables

Sector	Low Technology			High Technology		
	N	Freq.	Percent	N	Freq.	Percent
Structure and Infrastructure Sector						
Weed and Seed	55			34		
present		42	0.76		23	0.68
absent		12	0.22		9	0.26
missing		1	0.02		2	0.06
SASCI	55			34		
present		5	0.09		5	0.15
absent		50	0.91		29	0.85
missing		0	0.00		0	0.00

Regression analyses, regressing policy adoption on the external factors model sans the information technology variable, were conducted on the low information technology and the high information technology subgroups. Given the small numbers in the subgroups and the small number of districts with SACSI programs (ten out of ninety districts), the dummy variables for SACSI and Weed and Seed were reduced to a single variable, indicating experience with, or lack of experience with, a similar program.[28]

High Information Technology Subgroup

When this model was applied to the thirty-four districts categorized as the high information technology subgroup, the model predicted 80 percent of the variation in the level of policy adoption. As indicated in Table 8, for those districts with a good information technology infrastructure, the model is more predictive than it is when applied to the population of all districts.

Within the needs and products sector, the level of violent crime contributes greatly to the model ($\beta = .71$). This is in contrast to the findings when all districts were analyzed. In that case, no variable in the needs and product sector significantly contributed to the model. In the structure and infrastructure sector, the programs variable, which combined the Weed and Seed or SACSI dummy variables, remains significant ($\beta = .37$). This result begins to lend some credence to the possibility of a tipping point or priming effect of a structure that is congruent and capable of supporting change.

However, within the structure and infrastructure sector, one factor rose to significance, but in a direction counter to that predicted by the model. Population density

[28] This reduced the degrees of freedom in the model from eleven to ten.

becomes a significant contributor to the model ($\beta = -.64$). This result indicates that for this subgroup, lower population density districts would have higher levels of adoption. Diagnostics on the regression failed to show the effects of outliers or any other issue that provided insight into this unexpected relationship. Therefore, further exploration of this result was conducted and is explained following this discussion of the subgroup analysis.

Table 8. Subgroup Analysis: High Information Technology Group with Adoption Regressed on the Simplified External Factors Model

$R^2 = .80$
N= 25
intercept = -7.84
F value = 5.91 Pr > F = 0.000

Sector	Variable	Coeff.	SE	Sig.	Beta
Needs and Products Sector					
	Crime	0.01	0.00	0.00 **	0.71
	Cases	0.36	0.26	0.18	0.25
Structure and Infrastructure Sector					
	Programs	1.26	0.59	0.05 *	0.37
	Density	0.00	0.00	0.01 *	-0.64
Human Factors Sector					
	Gun Law	0.07	0.03	0.08	0.34
	Racial Threat	-3.54	1.97	0.09	-0.31
	Punitiveness	0.00	0.00	0.28	0.22
Resources and Survival Sector					
	Correctional Resources	0.00	0.00	0.20	0.30
	Allocation	0.00	0.00	0.45	-0.15
	Politics	1.48	0.47	0.01 *	0.47

** p< .01
* p< .05

In the human factors sector, no variables contributed significantly to the model (at the $p < .05$ level). However, districts with more restrictive gun policies approached positive significance ($p = .08$), indicating that in those areas where there is support for

more restrictions on guns and legal penalties prescribed for gun law violators, PSN may be less risky to adopt. Racial threat also approached significance (p = .09) and in the expected direction. Those districts in which racial threat levels were higher experienced lower levels of policy adoption, providing some support to the theory that the dominant group might view heightened federal efforts to control the sale and ownership of guns as well as the aggressive prosecution of gun violators as infringing on their right to arm when a racial threat is perceived.

In the resources and survival sector, political alignment did significantly contribute to the model ($\beta = .47$), while the other two factors did not. This result also provides some support for the idea that a good infrastructure may be a necessary, though insufficient condition for policy adoption, a priming effect. However, the failure of the correctional resources factor to rise to significance, as it did when all districts were evaluated, appears in conflict with that priming effect.

Low Technology Subgroup

The model was less predictive for the low information technology subgroup than it was for the high information subgroup or for all the districts. For the low technology subgroup, the model predicted 47 percent of the variation in policy adoption, as opposed to 50 percent for all the districts and 80 percent for the high information technology subgroup (Table 9). For this subgroup, none of the variables in the needs and products sector and no variables in the human factors sector were, or even approached, significance.

In the infrastructure sector, the presence of a similar program provided the highest contribution to the model ($\beta = .59, p < .000$). This is the one variable that was significant

in all three analyses: the full population, the high information technology subgroup, and the low information technology subgroup. Population density, the other factor in this sector, was not significant. In the human factors sector, no variables were significant. In the resources and survival sector, low investment in correctional resources was associated

Table. 9. Subgroup Analysis: Low Information Technology Group with Adoption Regressed on the Simplified External Factors Model

$R^2 = .47$
N= 46
intercept = 1.20
F value = 5.91 Pr > F = 0.005

Sector Variable	Coeff.	SE	Sig.	Beta
Needs and Products Sector				
Crime	0.00	0.00	0.47	-0.12
Cases	-0.04	0.16	0.81	-0.04
Structure and Infrastructure Sector				
Programs	1.78	0.43	0.00 **	0.56
Density	0.00	0.00	0.22	0.20
Human Factors Sector				
Gun Law	0.00	0.01	0.69	-0.06
Racial Threat	2.05	1.81	0.26	0.17
Punitiveness	0.00	0.00	0.23	-0.19
Resources and Survival Sector				
Correctional Resources	0.00	0.00	0.02 *	-0.36
Allocation	0.00	0.00	0.30	0.17
Politics	0.02	0.37	0.95	0.01

** p< .01
* p< .05

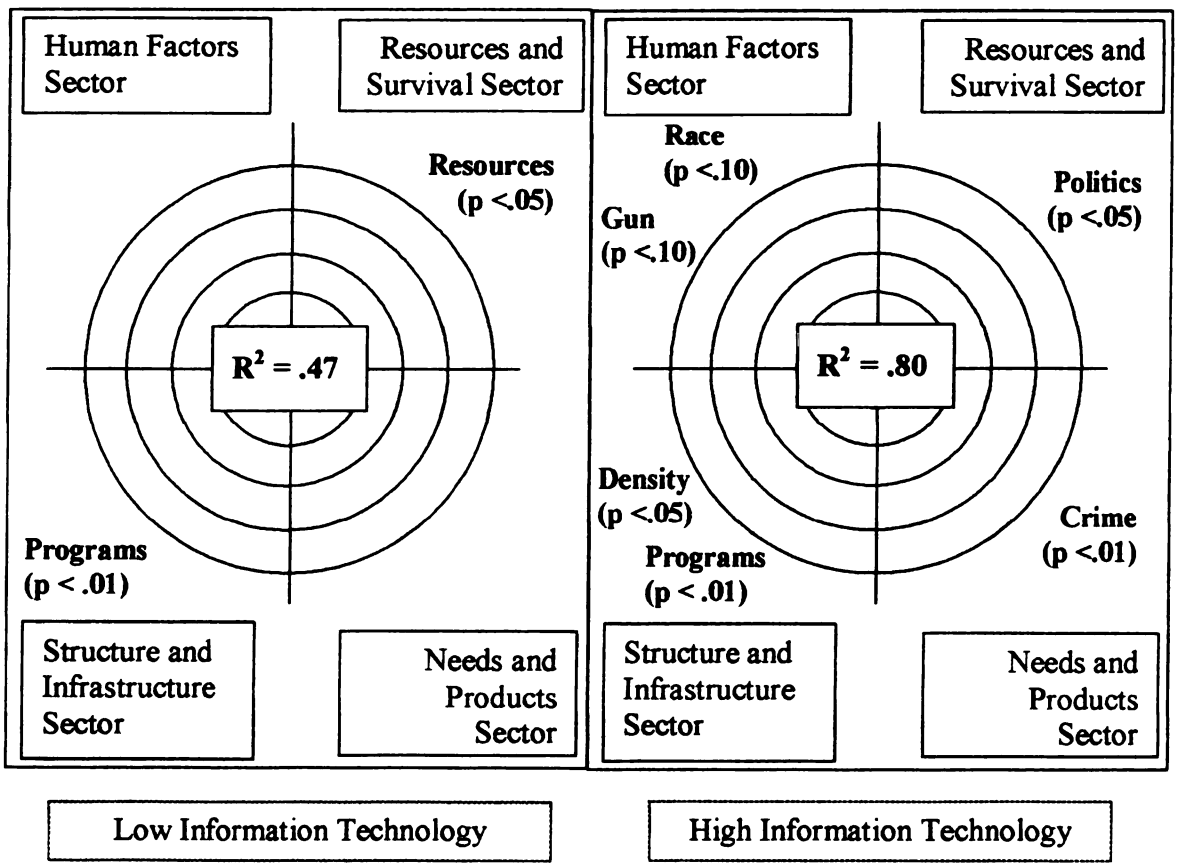
with higher adoption. This reflected the results in the full model, but the correctional resources factor did not significantly contribute to the model for the high information technology subgroup. The possible reasons that low investment in correctional systems

may be associated with adoption success in low technology, but not high technology subgroups, will be explored in the final chapter.

Comparison of the High and Low Information Technology Subgroups

A comparison of the results of the regression analyses on the low and high information technology subgroups is illustrated in Figure 18. Not only does the factor of information technology have an effect on adoption (Table 5), but for those districts with a higher level of information technology, the model becomes more predictive. Within the context of districts with a better information infrastructure, factors relating to all the other sectors reach or approach significance. In contrast, for districts with a less well-

Figure 18. Comparison of the External Competing Factors Model for Low and High Information Technology Subgroups



developed information infrastructure, policy adoption levels will be lower overall (Table 5), and the model is less predictive. It is interesting to note that in this low information infrastructure subgroup, experience with programs is the most significant contributor to the model. This reinforces the concept of the importance of structural and infrastructure components and competence to facilitate or prime policy adoption. This finding suggests that for those districts with a poor information technology infrastructure, prior experience with a similar program may be the key to overcoming barriers to implementation.

The resources and survival sector provides an interesting comparison. For low information technology districts, the lack of correctional resources significantly contributes to the model, while in high technology districts political alignment is important. Why low fiscal effort and the potential to shift costs away from local and state coffers should be linked to success in low technology districts, while enhanced political survival by supporting programs aligned with the party of local elected officials should be associated with success in high information technology districts is not immediately obvious. This is discussed further in the final chapter.

Overall, the structure and infrastructure sector appears to play a critical role in the success or failure of PSN adoption.

Further Investigation of the Effect of Population Density

Before leaving the subgroup analysis, there remains to be addressed the unexpected direction and significant influence of population density for the high information technology subgroup. Effectively, this finding would indicate that for those districts with a better information infrastructure, low population density is associated with policy adoption success. This is counter the hypothesis related to that sector.

One possible explanation is that population density fails to capture some important aspect of the structure of the district. To follow that line of reasoning, districts were assessed categories, based on United States Census Bureau's definitions (USCB, 2000).[29] The criteria for rural was an overall population density of less than 1,000 residents per square mile. Urban cities are defined as those with a population above 50,000. Combining those two definitions, three categories of districts were defined.

The first category is the rural district. These districts have a population density below 1,000 and no city with a population of 50,000 or more. Five districts, of the ninety, fall into that category. An example would be the Northern District of West Virginia. The population of the district is approximately 800,000 with about 64 residents per square mile and the largest city, Wheeling, has a population just over 30,000.

The largest group is comprised of the seventy-nine districts that do not have an overall population density of more than 1,000 residents per square mile, but do have one or more cities with a population about 50,000. This category will be called mid-urban.

The third category is the truly urban district. Six districts have a population density above 1,000 residents per square mile and a city or cities with a population above 50,000. An example is the Eastern District of New York. The district has almost eight million residents, and a population density of 1,417 people per square mile. The largest city (or Borough in this case) is Brooklyn, with a population of nearly 2.5 million.

As was noted earlier, at the .10 level of significance, high and low information technology groups differed on the independent variable of population density. Low information technology levels were associated with low population density and high

[29] The census categories are based on cities or metropolitan areas, not on regions or districts, so the density and population sizes were used as a means to translate an industry standard and apply it to a federal judicial

information technology with high population density. To understand how the categories of rural, mid-urban, and urban might explain the negative association between population density and policy adoption in the high information technology subgroup, the relationships between the rural-urban factor, information technology, and adoption were explored. Since the rural and urban groups are very small, statistically significant results are difficult to obtain. However, simple cross tabulations indicate relationships of practical significance.

First, of the five rural districts, all five were in the low information technology subgroup. Of the urban districts, only one did not fall in the high technology subgroup. Second, the rural districts varied in the level of policy adoption, with three in the lowest third of policy adoption, two in the middle third, and one in the highest third. In contrast, all the urban districts were in the middle range of policy adoption.[30] This leads to the possibility that the structure of very high density, high population districts may create a special environment for policy adoption, preventing low or symbolic implementation but with some barriers to full implementation.

To investigate the influence of the model if the extreme cases of rural and urban are treated as special cases, regression analyses were run, omitting the rural and urban districts. While overall the predictive capacity of the model did not change nor did the factors significantly contributing to the model, in the case of the high technology subgroup, the significance of population density disappeared. In the final chapter, the possibility of the effect of very high density, high population structures will be discussed.

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district.

[30] One urban district did not have a value for information technology and hence, could not be compared on this variable.

Summary for Hypothesis One

The model has been shown to have predictive power. External factors in the structure and infrastructure sector appear to have the greatest influence on policy uptake. In the overall test of the model, having experience with similar programs, and having a better information infrastructure are associated with higher levels of policy adoption. Attitudes and human factors, at least as conceptualized and measured in the model, did not significantly influence policy adoption. Perhaps the most intuitive factor, the level of need, also was not associated with the level of adoption. The amount of funding provided as an incentive and the possible political gain for adopting a policy championed by those of the same political party were not significantly associated with policy adoption levels. However, the lack of current fiscal effort, measured by low funding for corrections, does appears to be associated with a greater level of adoption. While this study conceptualizes this factor as part of the resource sector, it also could be viewed as part of the needs sector. If correctional resources are lacking, the need to shift the cost of incarcerating gun offenders from the state to the federal level could be seen as a motivating force for policy adoption. Taking in total, the broad analysis indicates that policy adoption is more successful in districts with more experience with PSN-like programs, with a better public information technology infrastructure, and if current spending on criminal justice (specifically the correctional system) is low.

The subgroup analysis provides some of the most interesting prospects for the employment of the model. Subgroup analysis lends support for a priming effect for the structure and infrastructure sector. Low information technology districts are less successful overall. Capacity, in the form of another infrastructure variable of prior

experience, gives these districts the best chance of success. For these districts, low current resources invested in the criminal justice system appears to motivate success. After separating the districts into high and low information technology competencies, the subgroup analyses indicates for districts with a good information infrastructure, other factors in the model then become significant. If that portion of the infrastructure is in place to support policy adoption, experience with similar programs is associated with greater success.[31] Once that capacity exists, human factors begin to emerge as possible predictors. Tougher gun laws and lower racial threat were associated with more success, if the standard for significance were relaxed to $p < .10$. Political capital, earned for championing programs linked to the elected officials' political party also rose to significance for this higher infrastructure group. While lower population density was associated with higher success, this relationship disappears if extremely high-density districts are treated as a special case. The policy implications of this will be discussed in more detail in the following and final chapter.

Hypothesis 2. The external competing factors model will differentially affect the elements of policy adoption.

The theory informing the external factors model would predict that the elements of policy would be differentially affected by external factors due to differing risks associated with each of the policy elements. The risk of each element would depend on the ability to perform tasks associated with the various policy elements and the potential gains or losses associated with the adoption of the various elements. A bivariate analysis

[31] A similar subgroup analysis was attempted for the variables capturing prior experience with similar programs (Weed and Seed and SACSI) but in both cases, subgroups were wildly unbalanced, with one

on the elements of policy adoption indicate that while the integration of research into strategic planning is significantly correlated with collaborative implementation and enhanced federal prosecution, collaborative implementation and enhanced federal prosecution are not significantly related (Table 10).

Table 10. Correlations Matrix for Policy Adoption Elements

		Research & Planning	Collaborative Implementation
Collaborative Implementation	Pearson Corr.	0.34 **	
	Sig. (2-tailed)	0.00	
	N	79	
Prosecution	Pearson Corr.	.25 *	.04
	Sig. (2-tailed)	.03	.70
	N	79	90

** p<.01
* p<.05

To begin to untangle the different influences on each element of policy adoption, separate regression analyses were conducted using each of the three policy elements as the dependent variable. The results, illustrated in Table 11, lend support to Hypothesis 2, which proposes that the specific mission and competencies associated with each of the policy elements create different perceptions of risks and benefits and are associated with different levels of policy adoption. The comparisons of the predictive ability of the model and the variables that contribute to the model's explanatory power reflect differences between the adoption variable and each of the three elements used to form that composite measure.

The results of each regression analysis will be examined individually. This comparison (Table 11) illustrates the model predicted more than half of the variation in collaborative

subgroup so small that regression analysis could not be conducted. For the SACSI program, only 10 of the ninety districts had a SACSI program. For Weed and Seed, 15 districts had data available for an analysis.

implementation, roughly a third of the variation in research integration into strategic planning, and one-fourth of the variation in enhanced federal prosecution. Also supporting the hypothesis that variables will differ in their influence on various elements of policy adoption is the comparison across regression analyses which shows that no

Table 11. Comparison of Standardized Coefficients (Beta) for Regression Analyses of Policy Adoption and the Three Adoption Elements

	Adoption	Collaborative Implementation	Research Integration	Enhanced Prosecution
Sector Variable	**Beta**	**Beta**	**Beta**	**Beta**
Needs and Products Sector				
Crime	0.15	0.11	-0.04	**0.29** *
Cases	-0.01	0.06	0.00	-0.10
Structure and Infrastructure Sector				
Information Technology	**0.33** **	0.02	**0.38** **	**0.31** *
Weed and Seed	**0.45** **	**0.47** **	**0.31** *	0.10
SACSI	**0.32** **	**0.22** *	**0.23** *	0.19
Density	-0.05	0.05	0.03	-0.18
Human Factors Sector				
Gun Law	0.06	0.13	0.12	-0.04
Racial Threat	-0.06	0.13	0.04	**-0.28** *
Punitiveness	-0.21	-0.21	-0.13	-0.10
Resources and Survival Sector				
Correctional Resources	**-0.26** *	**-0.27** *	-0.14	-0.09
Allocation	-0.10	**0.26** *	-0.10	-0.24
Politics	0.02	-0.03	0.03	0.07
R^2	0.50	0.51	0.34	0.25

** $p < .01$
* $p < .05$

single variable was significant across all of the three policy elements.

Hypothesis 2A. Adoption of collaborative programs should be associated with all sectors and factors within the model.

Collaborative implementation of programs requires multiple agencies to consider PSN participation a positive, rather than risky undertaking. Given that, it is theorized that

all sectors and variables within the external factors model should all influence the level of adoption of this policy element. The regression analysis defining collaborative implementation as the outcome or dependent variable lends some support for this hypothesis. The model explains just over half the variation in collaborative implementation of programs. However, the variables in the needs and products sector did not rise to significance. True to the hypothesis, the experience with similar programs did

Table 12. Collaborative Implementation Regressed on the External Competing Factors Model

$R^2 = .51$
N= 81
intercept = 2.93
F value = .07 Pr > F < .0001

Variable	Coeff.	SE	Sig.	Beta
Needs and Products Sector				
Crime	0.00	0.00	0.29	0.11
Cases	0.07	0.11	0.52	0.06
Structure and Infrastructure Sector				
Information Technology	0.02	0.08	0.79	0.02
Weed and Seed	1.94	0.39	0.00 **	0.47
SACSI	1.16	0.47	0.02 *	0.22
Density	0.00	0.00	0.64	0.05
Human Factors Sector				
Gun Law	0.00	0.01	0.89	0.13
Racial Threat	1.47	1.07	0.20	0.13
Punitiveness	0.00	0.00	0.06	-0.21
Resources and Survival Sector				
Correctional Resources	-4.56	0.00	0.01 *	-0.27
Allocation	1.32	0.00	0.02 *	0.26
Politics	-0.09	0.26	0.74	-0.03

** p< .01
* p< .05

significantly contribute, although the other variables in the structure and infrastructure sector did not (Table 12). Human relations or attitudinal variables did not contribute to the model. In the resources and survival sector, the lack of current fiscal effort and the amount of PSN resources did contribute significantly to the model. Political congruence did not.

Therefore, the ability for districts to form collaborative groups, able to implement programs across agencies, does not appear to depend on the level of need for the policy product. The ability to engage multiple agencies is linked to prior experience with similar endeavors. It also appears to be fueled by the level of resources and the potential fiscal benefit to the district and district agencies and the lack of fiscal effort and resources currently available. This history of collaborative efforts and the potential fiscal gain appear to be more influential than attitudes or the actual, crime-driven level of need for the specific policy. One interesting result is that the level of information technology in the district does not contribute significantly to collaborative implementation, while it does in overall adoption and in the two other policy elements. One possible explanation is that this collaboration does not necessarily have to be strategic or research-based. Collaborative strategies also could be based on working relationships within existing networks and based on experience, rather than on strategic plans.

Hypothesis 2B. Adoption of research integration into strategic planning should be most influenced by the structure and infrastructure sector within the model.

To integrate research into strategic planning, having both a technical infrastructure and a culture that supports research-driven decision-making would be hypothesized to enhance this policy element. However, applying research to gun

Table 13. Research Integration Regressed on the External Competing Factors Model

$R^2 = .34$
N= 72
intercept = 4.56
F value = 2.56 Pr > F = 0.008

Variable	Coeff.	SE	Sig.	Beta
Needs and Products Sector				
Crime	0.00	0.00	0.78	-0.04
Cases	-0.01	0.26	0.98	0.00
Structure and Infrastructure Sector				
Information Technology	0.65	0.19	0.00 **	0.38
Weed and Seed	2.34	0.93	0.02 *	0.31
SACSI	2.27	1.11	0.05 *	0.23
Density	0.00	0.00	0.08	0.03
Human Factors Sector				
Gun Law	0.02	0.02	0.36	0.12
Racial Threat	0.75	2.55	0.77	0.04
Punitiveness	0.00	0.00	0.32	-0.13
Resources and Survival Sector				
Correctional Resources	-4.16	0.00	0.31	-0.14
Allocation	-8.95	0.00	0.48	-0.10
Politics	0.15	0.60	0.81	0.03

** p< .01
* p< .05

violence issues would involve competing influences from all the sectors and factors in the model, and it would be hypothesized that all the factors in the model would assert some influence. When research integration is regressed on the factors in the model, the hypothesis is partially supported (Table 13). With the exception of population density, all the factors in the structure and infrastructure sector contribute significantly to the model. This lends credence to the postulated relationship between a culture and

infrastructure supporting research-driven decision-making. However, none of the remaining variables in the model was significant.

Hypothesis 2C. ***Adoption of enhanced federal prosecution should be most strongly influenced by the factors in the needs and products sector and those in the resources and survival sector.***

Increasing federal prosecution of gun offenders can be accomplished with little in the way of collaboration across agencies in a locality. If resources were sufficient and were

Table 14. Enhanced Federal Prosecution Regressed on the External Competing Factors Model

$R^2 = .25$
N= 81
intercept = -0.30
F value = 1.89 Pr > F = 0.0513

Variable	Coeff.	SE	Sig.	Beta
Needs and Products Sector				
Crime	0.00	0.00	0.03 *	0.29
Cases	-0.06	0.07	0.43	-0.10
Structure and Infrastructure Sector				
Information Technology	0.14	0.05	0.01 *	0.31
Weed and Seed	0.20	0.24	0.41	0.10
SACSI	0.51	0.29	0.09	0.19
Density	0.00	0.00	0.17	-0.18
Human Factors Sector				
Gun Law	0.00	0.01	0.75	-0.04
Racial Threat	-1.51	0.66	0.03 *	-0.28
Punitiveness	0.00	0.00	0.46	-0.10
Resources and Survival Sector				
Correctional Resources	-7.67	0.00	0.49	-0.09
Allocation	-6.02	0.00	0.09	-0.24
Politics	0.10	0.16	0.54	0.07

** p< .01
* p< .05

targeted toward the hiring and training of federal prosecutors, and providing there was sufficient gun crime to allow for an increase in such prosecutions, this policy element could be achieved. As will be discussed in the analysis of Hypothesis 3, this policy element is the one that is hypothesized to be the most likely candidate for recognition-based, or narrow, adoption and adoption to the exclusion of other elements. In practice, narrow policy adoption also could involve recognition-based groups, limited to prosecutors and law enforcement. The ability and willingness of local and state prosecutors and law enforcement to support protocols to apprehend and prosecute gun offenders is hypothesized to be affected by all the factors in the model. Therefore, all elements of the model are theorized to influence the acceptability of prosecuting gun offenders, but the need for such prosecution and the resources needed and provided are hypothesized to be most critical.

When enhanced prosecution is regressed on the model, the hypothesis is supported only in part. One variable in the needs and products sector, crime, does significantly contribute to the model. This does support the premise that in order to enhance federal prosecution, some need to do so must be present. However, none of the resource variables significantly contributes to the model (Table 14).

Enhanced prosecution is associated with one of the attitudinal factors in the human factors sector, indicating that enhanced federal prosecution is more likely in districts in which the perceived racial threat is low. This is the only analysis in which this variable rose to significance. In the overall model, it was proposed that PSN adoption would be facilitated in those districts in which racial threat was low. It was hypothesized if dominant groups (white in this case) constructed or perceived the non-dominant (non-

white) group as criminal, that the dominant group would oppose federal government efforts to restrict sales, ownership, and use of firearms, a means to prevent or control that threat. For example, in a jurisdiction in which minorities were not incarcerated at a rate beyond their population percentage, one could argue that this is some evidence that nonwhites are not symbolically constructed as a criminal group. If a jurisdiction incarcerates nonwhites at a percentage far above their population percentage, an argument can be made that a dynamic has been created in which the nonwhite group has been constructed as a criminal group. In this case, the model predicts that this construction of a dominant versus a criminal group will increase the public perception of risk. This risk will lead the dominant group to oppose any restriction on their ability to defend themselves.

While this reasoning fits the model, other views of the relationship between racial threat and PSN adoption are possible and worthy of investigation and discussion. If PSN is perceived not as a policy to restrict gun owners' rights, but rather as a way to target and punish gun offenders, it could be argued that racial threat would increase support for PSN adoption. This and other possible views of the human factors variables will be further discussed in the final chapter.

Summary of the Findings for Hypothesis Two

Policy elements, as proposed in hypothesis two, are differentially influenced by factors in the model. Important for the construction and for the interpretation of measures of success in policy adoption, the differences indicate that, even though elements of a policy may be logically and legally related to the incentivized whole, jurisdictions' willingness or ability may vary across elements. The model has the most

predictive power for the element of collaborative implementation, which requires districts to actively engage multiple agents and agents in the district in programs. The critical sectors for this element of adoption are structure and infrastructure and resources and survival. In practical terms, this means that districts succeed at bringing together multiple people and instituting some collaborative efforts if they have done something similar in the past. Such experience also was positively associated with higher levels of integration of research into strategic planning. However, this relationship did not hold for enhanced federal prosecution.

Success in collecting and integrating information into a planning process to address gun crime was influenced by the strength of the existing public information infrastructure. This also was true for increasing federal cases against gun criminals, but the information infrastructure did not contribute significantly to the model when applied to collaborative implementation.

In terms of resources, success improves as the fiscal incentives from the federal government grow, and if the current spending on related programs is low. The keys appear to be experience and the provision of resources where resources are needed. Resources played no significant role for either enhanced prosecution or research integration. Only for the element of enhanced prosecution did a human factor variable come into play. Lower racial threat was associated with higher levels of prosecution.

Overall, the lack of a bivariate correlation between enhanced prosecution and collaborative implementation, as well as the fact that no one variable played a significant role across all three regression analyses, lends support to the hypothesis that each element

of policy adoption is subject to the influence of the competing factors that are associated with the potential cost and benefit of adoption of that element.

Hypothesis 3. Patterns of policy adoption will be found that reflect symbolic groups, recognition-based decision-making groups, and strategic groups.

Theory on ways in which groups deal with the risk and costs of participating in collaborative enterprises reflect three patterns of group interaction: symbolic, recognition-based groups, and strategic groups. For Project Safe Neighborhoods, formal reports indicate that no districts have failed to adopt PSN, at least to some degree. Despite this, it is hypothesized that a pattern of symbolic participation will be found. Another means of reducing the cost and risk of investing in incentivized, cross-entity collaboration is to limit active participation to a recognition-based group. In other words, a group in which members share very similar core goals, lexicon, and protocols can communicate and operate at a lower cost than groups that must expend resources on finding or developing common goals, common protocols, and common communication systems. While the dynamics of groups will differ, and these patterns are proposed to fall along a continuum, if the hypothesis is correct, the expectation would be that examples of extremes, or pure forms, of these groups could be distinguished from the overall pattern and from one another.

Given the nature of PSN, the three patterns reflecting risk reduction group dynamics are hypothesized to be as follows. Symbolic groups, in their purest or most extreme form, would be those that do not implement any element of the policy. Conversely, the strategic groups would be those that implement all policy elements fully. In theory, narrowly focused or recognition-based groups could involve any sub-system or

closely linked sub-systems, but in practice for PSN, the most likely scenario is a federal prosecution-focused group. Since PSN is based out of the Office of the United States Attorney (USAO) and the USAO is accountable for reporting results, the most likely scenario for a limited and targeted group would be one centered on the protocols and processes of federal prosecution.

To determine if examples of these extreme forms could be found and compared, the districts were grouped into thirds on each of the three policy element scores. If symbolic adoption occurred in PSN, some districts should score low across all three elements. If full and strategic adoption occurred, some districts should score in the high category across all three elements. If recognition-based decision-making groups arose, focused on federal prosecution, some districts should reflect a pattern of high enhanced federal prosecution but low scores on research integration and collaborative implementation. In addition, since the analysis supported the hypothesis that enhanced federal prosecution was influenced by the level of crime, a fourth pattern was added to explore the influence of the level of crime on policy adoption. This pattern mirrored full adoption minus the prosecution component. Districts in this group were in the highest third for research integration and collaborative implementation, but the lowest third for prosecution. Presumably, these groups would have risk perceptions similar to those scoring high in all categories, but differing in some context that affects their ability or willingness to enhance federal prosecution.

To test this hypothesis, the districts were sorted into these categories and then sorted into patterns. As noted in Table 15, pure forms of each of these hypothesized groups were distinguishable for twenty-two districts, roughly one-quarter of all districts.

Table 15. Numbers of Districts in Each of the Pattern Categories

Pattern	N
All Low	5
High Prosecution, Low Research, and Low Collaboration	5
Low Prosecution, High Research and High Collaboration	6
All High	6

Those districts scoring high in all categories will be referred to as "strategic groups," those scoring high in research integration and collaborative implementation, but low in enhanced prosecution as "strategic minus," those scoring high in prosecution but low on the other two elements as "recognition-based," and those scoring low on all elements as "symbolic." Going back to the original definition of risk as "weighing the cost of the strategy against the potential benefits" (Crocker, 2003, p. 13) helps to put these results in context. Using the mapping procedure outlined earlier in this chapter, the means of each group were calculated and displayed on the maps in Figure 19.

The Hypothesized Functioning of Risk-Pattern Groups

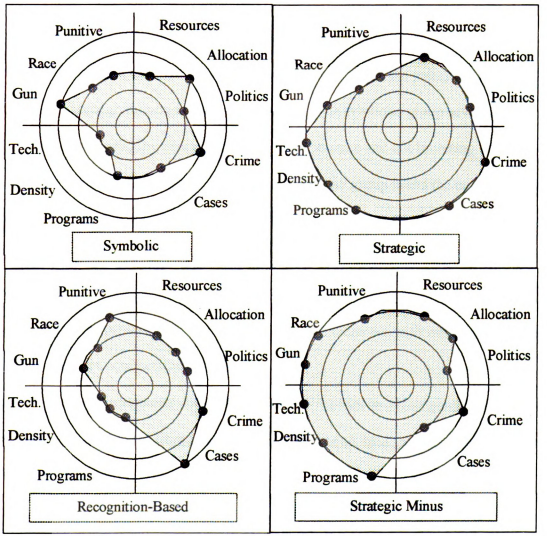
Given that groups are proposed to function in response to perceived risk, or to the potential costs and benefits of participation, each of these risk- pattern groups would be expected to exhibit functioning patterns to respond to risk conditions. One of the costs of participating in collaborative, data-driven policies, such as PSN, is the cost of information sharing. Research on decision-making under conditions of risk and uncertainty indicates that, to be effective, an information sharing strategy requires an initial investment that can be costly (Kamarck, 2005). Therefore, in terms of risk, the costs associated with implementing PSN should be reduced for districts in which such an infrastructure is in place. This ability to take in, translate, share, and employ data strategically has been modeled in two related ways for risk-pattern groups. Comfort uses

the idea of a bowtie model, in which a system is set up with a hub, or knot in the bowtie, that is the connection point where data is received, translated, and distributed in forms useful to all participants (Comfort, 2002, 2005). Weber et al. (2003) use the model of horizontal and vertical competencies, meaning the ability to ability to both share information among members and put that data to use to target the goal of the policy. Research indicates that the presence of a problem to be solved, relevant information to be gathered, and people empowered and funded to address the issue, is not associated with strategic policy adoption unless those competencies are present (Weber et al., 2003). Given that two-fold premise, one would expect that high functioning in all elements of the policy would require horizontal and vertical competency. This can be thought of as an infrastructure in which investments have already been made in the information technology infrastructure and in the training of human resources to value and employ data in decision-making. In the external factors model, this is reflected in the structure and infrastructure factors of prior experience with similar programs and the level of information technology.

Comparing these variables for the groups lends support for the models of vertical and horizontal competency and the need for prior investment in data sharing and use. All of the districts in the strategic group had prior experience with a similar program, and the mean for the group on information technology was in the highest quartile, indicating a prior investment in competencies that should lower the costs and the risk of PSN adoption. The same pattern is present for the strategic minus group. All have experience with similar programs, and the mean for information technology is in the highest quartile. Contrast this with the maps for the symbolic and recognition-based groups. Symbolic

groups had a mean technology score in the lowest quartile, and only one of the five districts had prior experience with a SASCI or Weed and Seed program. Similarly, the recognition-based group had a mean score in the lowest quartile, and none of these districts had past experience with a similar program.

Figure 19. Competing Factors Maps of Policy Adoption by Group Type



This map provides a good visual illustration of a risk reduction response in the context of group decision making. The maps support the contention that the risk of adoption is related to the costs of information gathering and sharing plus the costs of equipping people to use that data and participate in strategic planning. Lack of either horizontal or vertical competencies increases the risk, due to the costs that would be incurred in developing these competencies and in the potential costs associated with failure if those competencies were not developed. This mapping supports the premise that groups can limit this risk in two basic ways, either adopt the policy only symbolically or engage in recognition-based decision-making. The symbolic group saves all the costs of information sharing by decoupling goals from practice and not investing in or attempting meaningful planning. The recognition-base group limits the costs by limiting the group interaction to those who already share a common knowledge base and protocols for planning. In this case, a prosecution-only strategy allows these recognition-based groups to focus on only limited data, constrain the problem set to the goal of enhanced federal prosecution, and interact only with members with whom and in a way in which they are comfortable and familiar.

A second component that should affect the manner in which groups react to risk is the need for the product offered in the policy. High need for a gun crime policy, such as PSN, should weigh the cost-benefit calculation toward adoption. The map of the strategic group appears to bear this out. The mean for these districts fell in the high quartile for both crime and federal gun cases filed prior to PSN's initiation. For the strategic minus group, the results also seem consistent. Given that this group successfully has implemented research-driven collaborative programs, but did not

increase federal prosecutions, appears to be consistent with a lower need than is present in the strategic group.

Comparing overall violent crime rates among all groups, but the strategic group, those rates do not differ practically or statistically. However, the level of federal prosecution prior to PSN initiation raises some interesting issues regarding the interpretation of variables. Higher per capita filings are found in the strategic and the recognition-based groups. Lower per capita filings are found in the strategic minus and the symbolic group.

This variable, federal case filings, may be reflecting two concepts and could be thought of as belonging to two different sectors. The rate of federal prosecution could reflect both the level of need, gun offenses in the district that meet the requirements for federal prosecution, and prior experience, a well-established means of working with local and state law enforcement and prosecutors to identify and refer cases to federal prosecutors. Thus, the variable may relate to both the needs and products sector and the structure and infrastructure sector. The risk-patterns in the maps fit this model well. Strategic groups can integrate information and programs to enhance prosecution into their overall plan, since there is sufficient need, and since the cost of such programs is reduced as investments in their development has already occurred. Strategic minus groups are less likely to integrate enhanced federal prosecution programs into their plans because either the need does not exist, or investment in and experience with such programs has not yet occurred. Either the potential benefit is perceived as small or the deficits in the infrastructure raise the cost of adoption. For symbolic groups, the lack of need and/or the lack of experience raise the cost of adopting enhanced federal prosecution programs and

lower the potential payoff, thus increasing risk and decreasing policy adoption. For the recognition-based group, this prior experience, coupled with need, creates a risk environment in which the payoff is reversed from that in the symbolic group. Here need is high, and the infrastructure to plan and implement this narrow strategy in already in place. Potential benefits with little additional investment would be expected.

The maps of these extreme cases support the theory underlying the risks associated with population density. Strategic and strategic minus groups have denser populations, while symbolic and recognition-based groups have lower population density. It is theorized that it would be costly for low population density districts to determine a target area, as the population is widely spread. In addition, since agents and agencies also are widely spread, investment in collaborative planning meetings would be higher. Since target areas, populations, and participating agencies could be widely separated geographically, the cost versus the benefit of planning and implementing cross-agency, cross-jurisdictional programs might be might make such efforts cost-inefficient.

In terms of how patterns to limit risk are affected by human factors and by resources, the maps provide little additional information. While lower current resources for the correctional systems was associated with higher policy adoption in the overall population, the relation of this factor to adoption in these maps of extremes is far less clear. The relationship of some of these sectors to risk may be better understood at other levels of the model, either in terms of risks within participating agencies or risks within the task force structure.

The identification and mapping of risk patterns also helps inform research aimed at testing other levels of the model. In addition to mapping measures of central tendency

for the pattern groups, understanding how competing factors may influence these patterns is also aided by adding a mapping of the spread of mean values among the group members. Figure 20 provides maps for the recognition-based group. In the upper left-hand corner is the mapping of the group means. The value for each variable for each district in this category is then mapped separately.

The maps of each district in the recognition-based group provides confirmation of the assumption, from examining the group mean, that low information technology and little prior experience with similar programs increased collaborative and strategic adoption costs for these districts. Uniformly, across all five districts, information technology was in the lowest quartile and none of the districts had prior experience with a SACSI or Weed and Seed Program. In addition, there was little variation in the federal case variable, with three districts in the highest quartile and two in the third quartile.

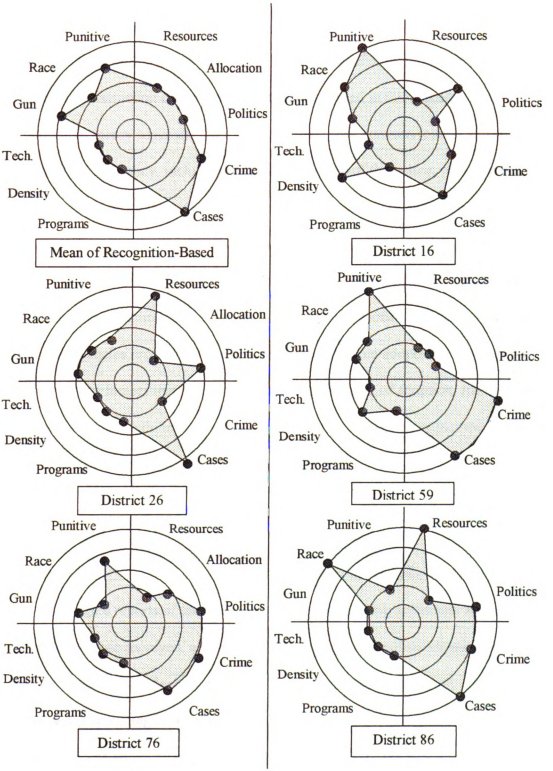
For the purposes of further investigating the influences of other variables in the competing factors model, the maps steer the researcher toward investigating the influences of existing correctional resources. Two districts are in the highest spending quartile, while three are in the lowest.

Summary

The model of external competing factors holds promise for further research and for informing policy whose aim is to address pressing problems in the criminal justice arena. The overall model predicts half of the variation in policy adoption, a useful tool to begin to ferret out jurisdictions primed for policy success, or failure. That priming appears to be influenced by the presence of factors in the structure and infrastructure category related to horizontal and vertical competencies. These factors appear to relate to

risk-patterns that make adoption more likely in districts in which the investments in these competencies already have been made. This idea of priming based on the costs associated with competencies is supported by the subgroup analysis in which the model becomes more robust when applied to those districts in which components of this infrastructure already exist.

Figure 20. Competing Factor Maps of the Recognition-Based Group and Each Group Member



CHAPTER NINE:
CONCLUSIONS

Is PSN Being Adopted?

Revisiting the theories and research introduced in Chapter Two, PSN as a federally incentivized-policy has been, according to official reports, universally adopted. However, construction of the measures of success used in this research indicate that, as institutional theory suggests, there may be differences between reports and reality. While the incentivized policy, including all major elements of the policy, was adopted in some districts, other districts implemented some aspects and not others. The degree to which policy elements were adopted varied, and some districts failed to adopt any elements of PSN. Viewed in the context of institutional theory, this result is not unexpected. For agencies in the criminal justice sector, where results are often difficult to frame and measure, agencies profit from the legitimacy gained from adopting a nationally-touted program. The factors that predict differences in the level of adoption, from decoupled and symbolic, through full and strategic can be at least partially explained by the framework of risk in the competing factors model.

Horizontal and Vertical Competencies and Costs

> It is questionable if we have a task force in our district.
> (Survey response from symbolic adoption district)

Despite reports of task force meetings and planning processes, the reality reported by those surveyed, and hopefully captured in the policy adoption measures, was that membership and planning processes in task forces sometimes did not include much in the way of meaningful activities. For members of symbolic groups, such as the member quoted above, that generally meant that meetings never took place.

In contrast, members in some districts reported sophisticated, data-driven problem solving processes.

> The research showed that a large percentage of homicides are gang-motivated, so the next step was conducting gang audits, identifying person-targets, and focusing enforcement on the violent few...
>
> (Survey response from a strategic district)

The results of the various analyses in this study lend support to the risk framework as a way to better understand why some districts would be willing and able to adopt strategic planning and implementation processes, while others do not even attempt to hold task force meetings. The most compelling findings were related to horizontal and vertical competencies, the ability to both interact with others and share information to solve a problem, and the ability to translate information and interaction into action that achieves the goal. This study supports the idea that a jurisdiction in which task force members have experience with group interaction and work in a culture in which information systems and processes are more routinized and acculturated will be more likely to have the horizontal and vertical competencies that enhance policy adoption success. The absence of such competencies was associated with low levels of policy adoption and with symbolic policy adoption. The analysis of subgroups of those in high information and low information technology districts reinforces the notion that both human experience with and the technological support for collaboration are necessary, if not sufficient, predictors of enhanced policy adoption success.

Turning first to the issue of an existing information infrastructure that can support data collection and use, districts with better infrastructures appear to be primed for policy adoption. Those with poor infrastructure tend to start at a disadvantage. The information

technology measure was not a specific measure related to police or court information systems, but rather a measure of the overall capacity and culture of information technology in the public sector.

One research partner who was surveyed noted that the task force in his district was willing to use information to help identify problems and guide strategies, but basic data collection, infrastructure, and interoperability problems among member agencies created barriers. "Those barriers are essentially the result of capabilities and resources rather than the lack of desire to cooperate." Framing this in terms of risk, the lack of an information infrastructure is not an easy or inexpensive barrier to overcome when attempting to adopt a policy that hinges on research-driven planning. The results of the analyses reinforce the concept of the importance of this infrastructure component. Because districts with better information infrastructures experienced higher levels of policy adoption success, this supports the idea that such deficits create risk. When such systems are not in place, the investment that would be required to support data-driven change may far outweigh the fiscal support provided by the incentive and may outweigh the perceived benefit of the level of gun crime control offered by PSN.

> I think that without an existing relationship between research and action partners, evolution of an effective relationship takes a long time.
>
> (Survey response from a low adoption district)

The second aspect of creating a state of horizontal and vertical competency involves the human element. As the above survey response notes, districts with little experience in collaborative and strategic planning efforts struggled to adopt the strategy. This was, according to those surveyed, not due to a lack of interest, but due to lack of understanding of how the process should

work, what roles members should play, how information should be shared and used, and how multiple goals and objectives could be blended into the PSN plan.

When prior investments had prepared and equipped management information systems and human participants for adoption planning and collaborative implementation processes, it is theorized that the costs of adoption were reduced, leading to the findings of higher level of policy adoption and adoption across all core elements. When these infrastructure components were missing, districts adopted risk-patterns designed to lower adoption costs. These risk-reducing patterns of interaction resulted in either symbolic adoption or narrowly focused strategies. A researcher discreetly described the symbolic nature of the task force in his district by saying, "It is questionable if there is a task force in our district." Such complete decoupling of goals from actions results in symbolic adoption which certainly reduces information and planning costs. Recognition-base decision making also reduces costs, but through a different pattern of interactions. Recognition-based group interactions were also found to be used by PSN districts as a risk-reduction strategy.

> There is little formal activity in the form of a task force... Interaction between the U.S. Attorney's Office and the police department was concerned primarily with developing a clear process for forwarding gun cases to the U.S. Attorney's Office.
>
> (Survey response from recognition-based district)

The survey response quoted above is a good example of cost reduction through forming a recognition-based group. The mapping and evaluation of extreme districts indicated that for districts with very low horizontal and vertical competency factors, a narrow form of policy adoption was possible. By focusing only on inclusion of people,

ideas, problems, information, and protocols centered around a narrowly focused area (federal prosecution), the need to invest in broader data systems or invest in building competencies in broad-based, collaborative planning can be eliminated. Instead, resources can be focused and work done by a group that already shared information, language, and goals. This reduces the risk of adoption, but also limits the potential benefits as the problem and the solutions are defined without benefit of a wider group or research on possible alternatives.

> The PSN Task Force has not bought into the "strategic planning" aspect of PSN. My sense is that they believe prosecuting a handful of cases each month at the federal level is in fact accomplishing the ultimate goals.
> (Survey response from a recognition-based district)

Another way of conceptualizing the benefits of a recognition-based group that focuses on expediting federal prosecution is to consider this a form of competency. While horizontal and vertical competencies are generally envisioned as elements of strategic problem solving, recognition-based groups could be thought of as non-strategic, but able and low-cost planning groups. The investigation and mapping of extremes indicated that districts which engaged in this form of decision-making averaged in the highest quartile of per capita federal gun prosecutions in the year prior to PSN initiation. While this variable was framed in this study to represent need, it also can be conceptualized as a measure of practical experience with information and people to develop and execute protocols designed specifically to meet the goal of enhanced federal prosecution. With these competencies already developed, even a modest infusion of funding could make an expansion of such processes very inexpensive.

Density and Decisions

While population density did not rise to significance in the regression analysis of policy adoption, the investigation and mapping of extremes still suggest that density may be related to policy adoption, though not in the manner and measures offered in this study. Narrative responses from very low population districts indicate the difficulties and costs associated with any planning effort across sparsely population areas.

An unexpected finding in the subgroup analysis for high and low information technology districts was that population density was negatively related to success. Further investigation led to the discovery of a possible tipping point in density. For districts in the mid-range of population, with a large city but an overall population density less than 1,000 residents per square mile, policy adoption results were not related to density. The significant difference in adoption appears to occur at the extremes. Very low density districts were generally unsuccessful adopters, as would be predicted by the model. Exceedingly rural districts, according to the responses by the research partners, often had difficulty identifying a target for the program. Further research into the agency and task force levels of the model will explore the relationship between low population density and policy structure. Narratives from the research partners and reviews of the existing information would suggest that rural district task forces were more likely to develop a district-wide target, rather than a target aimed at a specified locale. This diffuse target may confound efforts to provide specific, viable, and measurable programs. Conversely, the districts with large cities and very high overall population density were generally not in the high adopter category as was predicted. Looking back to the research on policy adoption of pre-release centers in larger and smaller correctional systems, the

effect of size differed when success was differently defined. Larger entities were more likely to adopt a center, but were not significantly associated with implementing a larger number of beds per capita (McGarrell & Duffee, 1995). This suggests that entities that must deal with a large number of people, goals, and competing programs may have the resources to absorb and the need to adopt policy at some level. In contrast to very low-density districts that suffer from no economies of scale, it is possible high population districts, like large agencies, may have such a range of needs, competing goals and programs, and complex human relations that full adoption in that context may be too complex and too expensive. Further analysis of the factors influencing adoption at the agency and task force level will be needed to explore to what extent very high density districts or very low density districts have organizational, administrative, geographic, or political issues that limit the ability of a task force to be highly successful.

Human Factors and Political Forces

> Legal barriers were eventually overcome, but the perceived risk to agencies was a huge issue... We were going to match the public list of elk and deer (rifle) licenses to a list of current felony probation and parolees. The [state] Department of Corrections gave us permission, as did the Game and Fish Department... but the governor heard about it and jumped on the Fish and Game officials.
>
> (Survey response, low adoption district)

While human factors and attitudes proved poor predictors of policy adoption success, responses from the surveys raise the possibility that public attitudes and political positions may play a role in policy adoption. The response from the research partner quoted above indicated that public attitudes in this low adoption state were not supportive of federal government programs that were perceived as infringing on the rights of citizens

to bear arms, even if those citizens are felons on parole. One of the limitations of this broad a study of human factors is that it becomes difficult to discover how policies, such as PSN, are framed in the public and the political decision-makers' minds. Is PSN a program that protects good people from bad and perhaps racially threatening groups by federally prosecuting them and incapacitating them in federal prison for long periods? Is PSN a federal incentive to get states to take guns away citizens or make buying or selling those guns more difficult? It is hoped that further studies, informed by this research, will allow in-depth analysis of districts. That analysis can better define the manner in which the policy is framed and perceived and seek out measures that capture the nuances of the push and pull of competing human forces on the adoption of this policy.

> My hunch (and it is really nothing more than a hunch) is that of lot of this [adoption failure] has to do with local politics, a Republican U.S. Attorney in a highly Democratic city.
>
> (Survey response from a low adoption district)

Subgroup analysis for districts with a good information infrastructure lent support to the idea that the political context of the district could influence the level of policy adoption. Another limitation of this broad analysis, and an analysis that does not place the researcher in the policy context, is that politics and the potential political capital to be gained or lost is difficult to measure without a deeper understanding of the political players. The measure used in this study was very limited, as it looked only at the political party of the governor and the mayor. Local politics is much more complex and a true measure would require understanding where political strength is truly exercised. In one jurisdiction, county leaders may be peripheral, in others county officials may be more powerful that a mayor serving in a city manager form of government. Tenure in the

position, the strength of alliance with a political party, as well as local political feuds and tensions can all play into the context of political benefit or risk.

Resources and Cost-Shifting

Organization theory would predict that if organizations can adapt to the circumstances in the external environment to assure a positive resource flow, the better the survival chances of the entity. It was theorized that the amount of resources flowing into the district as an incentive would influence policy adoption. If the premise stated earlier is true that the infrastructure factors serve as a primer or barrier to implementation, then, once this investment is paid for, the level of resources should positively influence adoption. However, this analysis provides an indication that it is not just the amount of money infused into the district that may enhance the adoption of this strategy, but the manner in which that money and that policy reduce a current risk. Districts in which the funding for the correctional systems was low were more likely to adopt PSN than districts in which such funding was high. While other interpretations of the influence of this variable are possible, the model proposes that low correctional funding indicates a survival risk and provides an incentive to adopt PSN to lower risk. The possibility of increased federal prosecution translates into an increased possibility that serious offenders will be charged, convicted, and incarcerated in the federal system. Any shifting of offenders from state and local jurisdictions to the federal system means a state and local cost saving on court and correctional costs. For serious offenders this can translate into significant savings. Aside from simple financial calculations, low investment in criminal justice systems can result in negative survival consequences for elected officials

in under-funded jurisdictions, including increased liabilities associated with under-staffed police departments, courts, and correctional institutions.

The Need for PSN

While perhaps the factor that one would most intuitively associate with policy adoption of a gun crime control program, the level of violent crime and the per capita federal prosecution of gun offenders, did not significantly contribute to the model of policy adoption tested with linear regression. As with the fiscal incentives, however, for districts with a good informational infrastructure, the level of need, measured as per capita reported violent crime, did contribute significantly to the model. This suggest that risk is related to the potential benefit that is promised by policy adoption, but that the costs of creating the infrastructure capable of producing such benefits may be a substantial enough cost barrier to prohibit adoption even when there is a need.

As discussed earlier, the classification of the federal cases brought per capita, used in this study as a measure of need, may reflect something more. Aggressive or limited prosecution may be bounded by crime rates, but also may reflect the competency and history of the federal attorneys to engage local and state prosecutors and law enforcement in processes leading to federal charges. In some sense, this variable may be related to the prior program experience variables, measuring implementation of Weed and Seed or SACSI programs. However, in this case, the experience is with a narrowly-focused group on a narrowly-defined mission.

Policy Implications

The findings of this study indicate the need for policy makers to seriously consider the level of vertical and horizontal competencies present in jurisdictions prior to channeling funding for policy adoption that requires broad-based collaborative groups. Using only the external level of the model, the results indicate that the best return on investment can be expected if districts have an information infrastructure and a history that supports collaborative problem solving. For districts lacking these competencies, a better long-term return on investment could be expected if grant monies were directed as ameliorating information systems and interoperability issues, and if programs were funded to provide technical assistance in the areas of data sharing and strategic planning. Narratives from the research partner surveys indicate that task forces in districts that failed in all but symbolic adoption did not know how to begin a cross-function planning process and would have profited by training in the basics of cross-agency collaboration.

While it seems intuitive to areas in which the need for the policy appears, by some objective measure, to be most needed, the findings in this study indicate that that premise may be most predictive of success with simpler policy processes. The level of violent crime in the district did influence high adoption of enhanced federal prosecution, but failed to contribute significantly to collaboration, research, or overall success with PSN. For framers of policy, the current trend toward multi-agency, multi-level policy adoption may require rethinking conditions that prime adoption. This study raises the possibility that for these more complicated criminal justice policy initiatives, policy makers should be aware of the level of competency in the district as well as the level of need. If a single-agency solution is proposed, those competencies may be less important.

Perhaps just as importantly, policy makers need to understand how jurisdictions limit the risk of policy adoption. Districts with poor competencies and, therefore, requiring large infusions of resources to create the structures and infrastructures required to support the adoption, may well resort to symbolic adoption or to a narrowly focused strategy that controls their costs. Some might argue that such a narrowly focused strategy may be a good policy choice. If infrastructure competencies do not exist, decision makers would be well advised to consciously make a choice to either invest in needed infrastructure components and defer adoption, or choose to support a simpler policy that involves less need for collaboration and strategic planning and does not require either the federal government or the state or local entities to bear the costs of enhancing the infrastructure.

Questions Related to Other Levels of the Model

> Task force turnover has been an issue...no strategy has been agreed on.
> (Survey response from a low adoption district)

Further research into the functioning of the model at the agency and the task force level may be more successful at building an understanding of a host of factors left unexplored at this level of the model. As the researcher quoted above noted, the work of the task force in his district was limited, not by the factors conceptualized and measured for this study, but factors related to the stability of task force membership. In addition to the factors that are endemic to member agencies or the task force itself, the role of human factors may become more clear when put in the context of the risks perceptions of those playing specific roles. For example, local attitudes on gun control may be of more concern to the elected prosecutor of the largest county in the district but create less

political risk for the federal prosecutor. In this study, whether related to problems with translating concepts into measures, or with the concepts themselves, attitudinal factors were not strongly associated with policy adoption or failure. The inclusion of risk perceptions by agency decision-makers may begin to unravel possible connections between public attitudes and policy adoption success.

Perhaps most intriguing are the questions related to the patterns of adoption that were found by sorting out extreme cases and reflecting strategies groups employ to reduce risk. Good candidates for case studies investigating the other levels of the model could be drawn from the four adoption patterns illustrated in Figure 19. These extreme cases could provide interesting laboratories to tease out the influences of agency and task force level factors. Social network analysis to determine the direction and density of interactions could be most useful in better defining these patterns of risk-decision making groups and provide insight into the strategies employed by groups to limit the cost of information sharing and the costs of policy adoption.

Limitations

This study, limited by the full coverage design, the relatively small population under study, and the exploration of only the external factors on the model provides some insights into the question of what factors support or inhibit policy adoption success. While the measures of success were given careful thought and required a good deal of industry to create, success is still a difficult concept to fully define and defend in the context of collaborative, multi-goal policies. Official reports and survey responses cannot be assumed to reflect an unbiased and unblemished view of reality.

The Quinn Heuristic

Using the concepts of sectors and the visual displays of competing factors developed by Quinn (1991) has provided benefits for this study and may provide additional benefits for research and practice. The model provides a useful discipline to group variables in ways that allow policy adoption research to build evidence based on the influence of sectors, while allowing variables to be tailored to the specific factors influencing perceptions of risk related to that policy.

For translation to policy makers and practitioners, the maps provide illustrations, that though simplified, of information that otherwise might be communicated in forms that would be less accessible for those not familiar with or schooled in statistical analysis.

In Conclusion

Despite the limitations of the study, this attempt to ferret out conditions under which policy adoption of the type of broad-based federally incentivized policies begins to provide some clues to the external factors that enhance adoption. The answers resulting from this study have implications for policy and could aid decision-makers determining whether districts are primed for adoption or would be better served by targeting funds and assistance to programs to build needed competencies. This knowledge would be helpful in both crafting policy and funding strategies. From the standpoint of a research agenda, the questions raised by the study are as, or more, important that those that are answered. This study raises research questions that can and will be answered by expanding research into the agency and task force levels of the model to continue to hone our understanding of the competing factors at all levels of decision-making that lead to policy failure or policy success.

APPENDICES

APPENDIX A: Research Partner Survey Instrument

Project Safe Neighborhoods
National Research Team
At Michigan State University
Survey for the Research Partner
Revised Version (09-15-05)

Instructions:
Thank you for taking the time to fill out this survey.
This document is a form that allows you to respond by clicking on the boxes or typing in responses. Please enter the requested information in the form given by feel free to add comments to help clarify your responses.

Research Partner Information

Name: Date Survey Completed: /2005
Phone:

District Name:

Research Partner Survey

1. **To what extent has the strategic problem solving process been integrated into the PSN task force?**
   For each section, please indicate the **one** statement that is closest to your perception of the manner in which the PSN task force is using information to drive decisions. **Please add comments to better explain your answers.**

Part A. Using data to identify problems.
☐ The task force is interested in looking at data to identify problems and solve problems.
☐ The task force is interested in data and analysis for areas they have already identified as problems.
☐ The task force is interested in data to confirm the value of current practices.
☐ The task force is not interested in using data and analysis to drive planning.

Part B. Translating data into decisions.
☐ The task force has used research and data to create programs or strategies.
☐ The task force has used research and data to expand existing programs or strategies.
☐ The task force has used research and data to justify or publicize existing programs.
☐ The task force has not connected research and data to programs or strategies.

Part C. Evaluating results
☐ The task force has already received an evaluation report(s) on PSN efforts.
☐ Evaluations of PSN programs are underway but not yet complete.
☐ Evaluations of PSN programs are in the planning or ramp-up mode.
☐ Evaluations of PSN programs have not gotten beyond the discussion phase.
☐ The task force has not requested or supported the development of evaluations.

Comments:

2. **To what extent are you (and other research team members) integrated into the task force?**

Please indicate the statement that best describes your perception of your relationship with the task force and then provide any comments that will help explain your answer **(choose one).**

☐ I/we function as a member of the task force, participating openly and regularly with task force members.

☐ I/we function as a resource person, providing information routinely but not actively participating in all phases of discussion and planning.

☐ Research is peripheral to the task force process.

Comments:

3. **Was the research team able to conduct analyses of the local gun crime problem?**

   ☐ yes
   ☐ no
   ☐ don't know

   a. If yes, did the task force use the findings to shape gun crime reduction strategies?

      ☐ yes
      ☐ no
      ☐ don't know

      Comments:

4. **In what areas has research provided a tangible result?**

Check **all** that apply and **give an example** for those areas with tangible results.

Check all that apply	**Give an example**
☐ Problem identification	
☐ Program development/expansion	
☐ Program evaluation	
☐ Program revision/modification	
☐ Resource allocations/shifts	

5. **Do you think that task force members will be more likely to use research and research partners after their PSN experience?**

   ☐ yes
   ☐ no
   ☐ don't know

   Comments:

6. In your view, the overall impact of PSN in terms of the use of problem-solving processes is best **described by which of the following statements (choose one).**Please comment to clarify your opinion.

☐ PSN has created an environment in which data analysis drives decision making.
☐ PSN has increased the use of research in decision-making.
☐ PSN has increased the use of research to evaluate existing strategies, but not to drive all decisions.
☐ PSN has increased the ability of task force members to collect data, but analysis and evaluation processes are not integrated into decision-making.
☐ PSN has not changed the way in which decisions are made.

Comments:

7. **Please rate <u>each</u> of these areas to the extent they created barriers to research-driven problem solving. Please select one of the three responses. Feel free to add comments.**

a.	Legal barriers problem	☐ No problem	☐ Some problem	☐ Major
b.	Administrative barriers problem	☐ No problem	☐ Some problem	☐ Major
c.	Perceived risk to agency problem	☐ No problem	☐ Some problem	☐ Major
d.	Turf issues problem	☐ No problem	☐ Some problem	☐ Major
e.	Information is not collected problem	☐ No problem	☐ Some problem	☐ Major
f.	Information in incompatible form problem	☐ No problem	☐ Some problem	☐ Major
g.	Lack of technology/technical support problem	☐ No problem	☐ Some problem	☐ Major
h.	Lack of interest in research problem	☐ No problem	☐ Some problem	☐ Major
i.	Lack of action by members* problem	☐No problem	☐ Some problem	☐ Major
j.	Lack of funds problem	☐ No problem	☐ Some problem	☐ Major
k.	Lack of personnel problem	☐ No problem	☐ Some problem	☐ Major
l.	Administrative/organizational issues problem	☐ No problem	☐ Some problem	☐ Major

** members failing to follow through with data collection, working on data issues in their agencies, etc.*

Comments:

8. **Has the PSN task force provided any additional funding for research beyond the initial BJA grant?**

☐ yes
☐ no
☐ don't know

Comments:

9. **From your perspective, how supportive and engaged has the U.S. Attorney been in PSN (choose one)?**

☐ The U.S. Attorney has been both supportive and engaged in PSN.
☐ The U.S. Attorney has been supportive of PSN.
☐ The U.S. Attorney does not appear to be supportive or engaged in PSN.

10. **Comments:**

11. **How supportive has the PSN project coordinator been of your research efforts?**

☐ very supportive ☐ somewhat supportive ☐ not supportive

Comments:

12. **Overall, has the PSN research experience been positive or negative?**

☐ positive ☐ somewhat positive ☐ somewhat negative ☐ negative

Comments:

13. **Please provide any additional comments about your experience in PSN that you would like to share.**

Comments:

APPENDIX B: PROJECT SAFE NEIGHBORHOODS SEMI-ANNUAL REPORT TO THE ATTORNEY GENERAL (07-2005)

The following questions were used in the construction of measures for this study.

15. Has data analysis helped the task force focus on gun violence?

- ☐ Very much
- ☐ Somewhat
- ☐ Not really

17.a1. Please identify enforcement/deterrence focused strategies your task force has implemented:

- ☐ Increased federal prosecution of firearms-related cases
- ☐ Increased state and local prosecution of firearms-related cases
- ☐ Deployment of street-level firearms enforcement unit
- ☐ Offender-notification meetings
- ☐ Probation/parole enforcement home visits
- ☐ Directed police patrol in high crime areas
- ☐ Supply-side interventions
- ☐ Investigations of criminal organizational/gang violence

17.a2. Please identify prevention strategies focused strategies your task force has implemented.

- ☐ Clergy outreach to offenders
- ☐ Employment programs
- ☐ Substance abuse programs
- ☐ Education programs
- ☐ Vocational training programs
- ☐ Neighborhood development programs
- ☐ Youth street worker outreach
- ☐ School-based prevention
- ☐ Hospital trauma center outreach
- ☐ Other

APPENDIX C: DIAGNOSTICS

This appendix section contains the tests used to both compare permutations of the model and the regression diagnostics on the model that was employed in the study. In the regression analysis including all 24 state, dummy variables, only two state variables rose to significance, being in California was associated with lower adoption ($p<.01$) and being a district within North Carolina was associated with higher adoption levels ($p<.05$). Comparing regression analysis between the simple model and the model adding the two state variables, the variables that rose to significance did not differ (Table C1).

Bivarate correlations indicate that being a California district is significantly associated with higher allocations and stricter gun laws. Being a North Carolina district was not significantly associated with any of the independent variables. As the full model is tested, further clues into the influence of these state-level factors will be explored. For this study, the simple model will be utilized.

Table C1. Comparison of Standardized Estimated (Beta) for the Simple Model and the Model Including Two State Dummy Variables

	Simple		State	
Variable	**Beta**	**Sig.**	**Beta**	**Sig.**
Needs and Products Sector				
Crime	0.15		0.15	
Cases	-0.01		-0.05	
Structure and Infrastructure Sector				
Information Technology	0.33	**	0.31	**
Weed and Seed	0.45	**	0.37	**
SACSI	0.32	**	0.28	**
Density	-0.05		-0.14	
Human Factors Sector				
Gun Law	0.06		0.23	
Racial Threat	-0.06		-0.14	
Punitiveness	-0.21		-0.13	
Resources and Survival Sector				
Correctional Resources	-0.26	*	-0.24	*
Allocation	-0.10		0.05	
Politics	0.02		0.05	
State Variables				
California			-0.34	**
North Carolina			0.29	*

Table C2. Bivariate Correlations between Scaled, Independent Variables

		Crime	Cases	Pop. Density	Info. Tech.	Racial Threat	Gun Laws	Puni-tiveness	Correct. Res.	Alloca-tion
Crime	Pearson Corr.									
	Sig. (2-tailed)									
	N									
Cases	Pearson Corr.	0.33								
	Sig. (2-tailed)	0.00 **								
	N	89								
Population Density	Pearson Corr.	0.51	0.62							
	Sig. (2-tailed)	0.00 **	0.00 **							
	N	89	90							
Info. Technology	Pearson Corr.	0.00	0.05	0.05						
	Sig. (2-tailed)	0.99	0.61	0.66						
	N	88	89	89						
Racial Threat	Pearson Corr.	0.17	-0.07	-0.11	0.13					
	Sig. (2-tailed)	0.11	0.54	0.28	0.21					
	N	89	90	90	89					
Gun Laws	Pearson Corr.	0.14	-2.23	0.12	0.02	0.12				
	Sig. (2-tailed)	0.19	0.03 *	0.26	0.89	0.26				
	N	89	90	90	89	90				
Punitiveness	Pearson Corr.	0.33	0.07	-0.03	-0.08	0.26	-0.18			
	Sig. (2-tailed)	0.00 **	0.53	0.80	0.46	0.02 *	0.09			
	N	88	89	89	89	90	89			
Corr. Resources	Pearson Corr.	-0.23	-0.12	0.04	0.10	-0.12	0.18	-0.56		
	Sig. (2-tailed)	0.03 *	0.25	0.70	0.36	0.28	0.09	0.00 **		
	N	87	88	88	88	88	88	88		
Allocation	Pearson Corr.	0.28	-0.3	0.15	0.18	0.09	0.43	0.03	0.12	
	Sig. (2-tailed)	0.01 *	0.00 **	0.15	0.09	0.39	0.00 **	0.81	0.26	
	N	89	90	90	88	90	90	89	88	
Politics	Pearson Corr.	0.06	0	0.22	0	0.25	0.00	0.02	-0.02	0.06
	Sig. (2-tailed)	0.59	1	0.05 *	1	0.02 *	0.99	0.87	0.88	0.49
	N	86	87	87	87	87	87	87	86	87

** significant at .00
* significant at .05

Table C3. Bivariate Relationships between Categorical and Scaled Independent Variables

	Crime			**Cases**			**Pop. Density**			**Info. Technology**			**Racial Threat**		
	N	Mean	sig.	N	Mean	sig.	N	Mean	sig.	N	Mean	sig.	N	Mean	sig.
Weed and Seed			0.02 *			0.75						0.57			0.03
Present	65	524.94		66	2.82		66	442.80	0.22	65	7.12		66	0.36	
Absent	21	371.10		21	3.04		21	81.70		21	6.85		21	0.28	
SACSI			0.53			0.8			0.71			0.36			
Present	10	538.59		10	2.68		10	232.6		10	7.6		10	0.37	0.62
Absent	79	484.56		80	2.90		80	378.5		79	7.01		80	0.34	

	Gun Laws			**Corr. Resources**			**Allocation**			**Politics**		
	N	Mean	sig.	N	Mean	sig.	N	Mean	sig.	N	Mean	sig.
Weed and Seed			0.10			0.44			0.01 *			0.34
Present	66	11.03		64	24,996		66	639,078		65	0.89	
Absent	21	3.19		21	23,019		21	399,186		19	0.74	
SACSI			0.57			0.10			0.68			0.19
Present	10	12.40		10	29,258		10	627,500		10	0.6	
Absent	80	8.78		78	23,792		80	579,508		77	0.88	

** significant at .00

* significant at .05

Table C4. Chi Square Analysis between Dummy Independent Variables

	DF	Value	Prob.
Chi-Square	1	1.23	0.37

	Frequency	**Weed and Seed**		
	Percent	0	1	Total
SACSI	0	20	57	77
		22.99	65.52	88.51
	1	1	9	10
		1.15	10.34	11.49
	Total	21	66	87
		24.14	75.86	100.00

Missing = 3

Table C5. Regression Diagnostics: Tolerance and Variance Inflation Factor Statistics for the Restricted Model

Variable	TOL	VIF
Crime	0.71	1.41
Cases	0.71	1.40
Information Technology	0.92	1.09
Weed and Seed	0.74	1.35
SACSI	0.86	1.16
Density	0.66	1.52
Gun Law	0.66	1.52
Racial Threat	0.74	1.36
Punitiveness	0.56	1.80
Correctional Resources	0.60	1.65
Allocation	0.57	1.77
Politics	0.83	1.20

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