
Paper presented at the 2016 State Politics and Policy Conference

Dallas, Texas

Sean Hildebrand
Assistant Professor
Department of Political Science
Ball State University
269 North Quad
Muncie, IN 47306
(765) 285-8789
shildebrand@bsu.edu
Abstract

This article examines local emergency manager’s beliefs regarding control over tasks during the various stages of the hazard cycle since federal policies went into effect following the September 11 attacks. The study considers whether a disparity exists between the actions of local officials during each phase of the “hazard cycle” and the policy expectations of the federal government which call for greater federal control over activities in emergency management and homeland security. To do so, hypothesis testing considers the jurisdiction’s use of Comprehensive Emergency Management (CEM) practices, the perceived “clarity” of the federal policy demands, and if the local actors feel coerced to comply with federal policy demands so that grant funding is not compromised. Using a model developed from “third-generation” policy implementation research (Goggin et al. 1990), the results show that the odds of local officials citing federal control over these actions have very limited statistical significance. This signals that the perceived lack of local input into the development of these federal policies and their limited use of traditional CEM measures may not be in concert with what local actors perform in the field. These results align with pre-existing research in the emergency management field that show issues with efforts to centralize policies under the Department of Homeland Security (DHS) and Federal Emergency Management Agency (FEMA).

Keywords

Background

The September 11 attacks sparked massive changes not only in the psyche of the American populous, but also via the rapid development and implementation of federal homeland security policies that changed emergency management activities at all levels of government (Waugh 2007; Tierney 2005; Scavo et al. 2008). In response to the attacks, these newly developed federal policy demands intended to standardize and centralize operational direction over emergency management functions at the federal level. In addition, the policies were considered to be disproportionately focused on homeland security activities instead of traditional activities related to risks in a community (Waugh 2006; Esinger 2004; McEntire 2004; Haddow 2005; Schneider 2005; Waugh and Sylves 2002; Birkland 2009). These policies were also developed with little-to-no input from those working in the field at that time (Birkland 2009). The policies represent a change of direction for federal actors in emergency management, moving from their previous role of supplementation or support, to one with a command and control structure and the centralized assumption of “primary responsibility” over disaster if the incident reached a vague threshold of size and scope. (Lester and Krejci 2007; Posner 2007; Department of Homeland Security 2008; Takeda and Helms 2006; Waugh 2007; Sadiq et al. 2016).

This study queries local emergency management professionals about their beliefs regarding the policies created after the September 11 attacks. Specifically, do the policies created in the wake of the September 11 attacks empower the federal government to take control over actions across the Comprehensive Emergency Management (CEM) “Hazards Cycle” (mitigation, preparedness, response, and recovery). Prior to the September 11 attacks, local governments exhibited substantial control over the actions
taken during the hazard cycle stages, even when seeking federal or state assistance. Any perceived change to this notion would be a result of the actors ceding control over tasks within the phases of the emergency management process. As a result of the attempt to centralize the process for emergency management operations, as well as prioritizing actions designed to prevent terrorism, the federal government considers all actions during the phases of the “hazard cycle” as something that they have more involvement in, if not the outright direct responsibility to lead. Therefore, local governments would need to recognize the increased importance of, if not direct control by, the federal government over these general stages and the actions undertaken within each stage.

Arguably, changes that the federal government made in the name of standardization without the input and approval of local actors have the potential to limit the effectiveness of resources, like those cooperative networks already in place in most locales, and reduce the ability of local governments to respond to natural or accidental disasters (Neal and Webb 2007; Waugh 2004). Thus, when local managers attempt to use previously created plans and tools designed to prepare for and respond to incidents in their jurisdiction, they may do so in a manner that does not mesh with federal policy demands.

Furthermore, post-September 11 federal disaster policy requires local governments to spend more money and attention on “preventing” and “protecting” citizens from potential terrorist attacks, which in turn may limit their ability to address hazards and vulnerabilities in their community that have a greater likelihood of occurrence. For example, the circumstances preceding and immediately following Hurricane Katrina highlighted the limitations of the new federal policy’s centralized
homeland security emphasis throughout all layers of government (Waugh 2007; Neal and Webb 2008). Differences in organizational priorities like this led to conflicts between agencies within the Department of Homeland Security (DHS) and between actors at all levels of government even prior to Hurricane Katrina, limiting the ability to develop improved emergency management policy and practice (Lehrer 2004; Waugh 2005).

With federal policy squarely focused on homeland security operations since the September 11 attacks, disaster management experts must ask why local governments play along with the dramatic shift in focus for their organizations, particularly when the need or methods are not clear. While there is an effective, long-established way of preparing for and responding to disasters of all types via Comprehensive Emergency Management (CEM), the effects of and initial responses to natural or accidental disasters and terror events are not entirely congruent.

As Posner (2007) claimed, any lack of coordination between levels of government, as well as the lack of support by those in charge of implementing new policies, creates obstacles making it difficult for local actors to fully comply with the federal government’s policy demands. It is important to understand the reasons behind any potential gap in control that differing levels of government foresee during the “hazard cycle” phases. This becomes more significant considering how the tasks and stages are not analogous between homeland security operations and the hazard cycle, particularly because the federal policies claim to favor unity in method to address all types of disastrous incidents. Even if local officials report the implementation of federal policy demands (Scavo et. al 2008; citation redacted for blind review), they may not fully understand the influence these demands have on local governments’ control of different
stages and tasks within the hazard cycle. Conversely, local actors’ misinterpretation of the federal policy demands could work against the federal governments’ efforts towards centralization. Within the language of the National Incident Management System (NIMS), the Incident Command System (ICS), and the National Response Plan (NRP) local actors could perceive certain tasks within the federal or state government’s scope of control, while other, perhaps more traditional, functions in emergency management remain under local control.

In other policy fields, the perceived “clarity” of the policy requirements has proven to be the driving force behind local government implementation of federal policy demands (Goggin, et al. 1990; Cline, 2000; Cho et al., 2005; citation redacted for blind review). In this case, the lack of clarity regarding who has control over specific tasks at specific times may affect the local department’s willingness to cede control to federal actors, even if not doing so works against the policy’s ultimate goal of greater centralization and standardization.

Additionally, local emergency management actors may feel pressure from federal policy demands to dedicate additional resources to these activities, particularly if terrorism is not a concern in that jurisdiction in relation to natural or accidental disasters based on a risk assessment. Such influence over local decision making could be considered to be a form of coercion. Coercive federalism is defined by Bowman and Kearney (2016) as a form of federalism in which the national government uses regulations, mandates, and preemptions (among other actions) to impose national priorities on the states. Several authors cite homeland security policy development as a form of coercion favoring the George W. Bush administration’s efforts in the “War on
Terror” (Posner 2007; Lester and Krejci 2007; Edwards 2007; Bowman and Kearney 2016; citation redacted for blind review). In this case, grant funding may be placed at risk if local actors do not comply with federal demands that enhance federal control and the standardization of actions performed.

Therefore, this study will test if local actors perceive control over actions in each “hazard cycle” phase as the responsibility of the federal government or themselves. To accomplish this, a model has been developed based on Goggin and his colleagues (1990) “communications model” of policy implementation. The model takes into account the background of local departments as well as the effects of federal policy demands upon the attitudes of local managers with regards to control over the specific phases. It is anticipated that those actors who report a greater amount of experience in, and use of CEM practices within their jurisdiction will be less likely to report federal control over the actions during each phase of the hazard cycle. However, it is also suspected that coercion may play a role as those departments who receive key federal grant funds will not want to risk losing them by not complying, therefore enhancing their likelihood of complying with federal policy demands. Furthermore, the perceived clarity of the policy language is expected to play a role, as actors who report a greater degree of clarity in the federal policy demands will be more likely to comply with those demands, even if it means ceding control over actions during the hazard cycle phases. Altogether, the testing of these assumptions will shine a light upon any potential disparity between federal policy demands for centralization and local actions that stray from this expectation in favor of traditional, locally-controlled methods.
Post-September 11 Policy Changes

Following the events of September 11, 2001 the federal government adopted three key policies that altered the field of emergency management. The Incident Command System (ICS) created a standardized system for command, operations, planning, logistics, and finance. As part of the ICS, all levels of government should coordinate efforts to plan, prioritize, and communicate before, during and after an incident (Department of Homeland Security 2008). The ICS is a component of the National Incident Management System (NIMS) which seeks greater coordination and a consistent, standardized structure for federal, state, and local officials in disaster response and preparedness (Department of Homeland Security 2008). NIMS is a component of the National Response Plan, which was the centerpiece legislation that defined how the federal government will get involved throughout the emergency management field. The federal government assumes “primary responsibility” for disaster management when state and local officials exhaust their resources. However, those state and local officials must comply with federal demands even before involving federal officials, so that when the federal officials arrive the communication and resource structure needed is already in place (Department of Homeland Security, 2004; McGuire and Schneck, 2010). The National Response Framework (NRF) replaced the NRP in 2008 using lessons learned from the Hurricane Katrina disaster in 2005, among other uses of the policy. However, the NRF is not part of this study since the survey went into the field at the time of policy transition.
Comprehensive Emergency Management (CEM)

The use of CEM principles and its all-hazards philosophy has a long history of both theoretical development and practice in the emergency management field (National Governor’s Association 1979; Drabek and Hoetmer 1991; McEntire et al. 2002; Haddow 2005; Waugh 2006; Hite 2003). Traditionally, CEM all-hazards planning bases local actions on a jurisdiction’s risk assessment (Nicholson 2007). CEM also demands that program management coordinate with activities (mutual aid, drills, etc.) so that all elements of disaster management relate to each other and to the efforts of other public, private, and non-profit actors. In doing so, a unified strategy is created to prepare for and respond to all disaster types (Drabek and Hoetmer 1991; McEntire et al. 2002). Therefore, CEM displays an inherent flexibility that accounts for a community’s vulnerability and the actors’ ability to handle situations as they arise.

While CEM and the all-hazards method has been called simplistic (Neal 1997), or ignorant of key social, political, and cultural variables that increase vulnerability when it tended to focus upon only those reactive elements within its bounds, CEM continued to serve as the basis for most public policy and developed theories on proper emergency management protocol before the September 11th attacks. Within the reform efforts by the federal government, CEM remains supported in practice (McEntire et al. 2002). For instance, the NRP cites the use of CEM components in creating a uniform method for disaster preparation and response, as well as a system of command and control over all actors in the process (Department of Homeland Security 2008). The policy language also stresses the importance of the partnerships emphasized in CEM literature.
But, the NRP emphasizes a “bottom-up” model stressing local control and flexibility, it does so using federal “unifying” definitions of priorities, roles, and responsibilities creating a “top-down” method and means for compliance with federal policy demands (Chertoff and Paulison 2008). The requirements of NIMS force local governments to consider tasks designed to address terrorism within the traditional bureaucratic structure of preparing for and responding to disasters and catastrophes. Homeland security related tasks involve several traditional CEM methods such as training, communication, and planning, but not all activities related to homeland security are the responsibility of, or related to, emergency management operations. Traditionally, counter-terrorism policies focus on using law enforcement to thwart terror plots before they occur. One main difference between counter-terrorism activity and disaster management is how disaster management organizations share information leading up to, preventing, or responding to possible terrorist attacks, specifically concerning with whom the federal policymakers expect local emergency management operations to remain in contact (such as the FBI, or military versus FEMA or other state organizations).

However, the consequences of natural/accidental disasters and terrorist incidents are not very different, and a jurisdiction can use similar tactics throughout the emergency management cycle when responding to these incidents (Birkland 2008). For instance, local actors must provide an immediate medical and material response to victims of a tragedy, be it natural, accidental, or intentional. These local actors can create plans determining the basic direction of resources and communications with the public about the situation before/during/after any type of disastrous incident (Perry and Lindell 2003; Henstra 2010).
**Stages of the Hazard Cycle**

CEM practices fall within, though they are not exclusive to, four stages of the hazard cycle: mitigation, preparedness, response, and recovery (National Governor’s Association 1979; Haddow et al. 2008; Drabek and Hoetmer 1991; McEntire et al. 2002). Theorists have debated the definitions of each stage, their relative importance, and what role each level of government needs to undertake when implementing related policies (McEntire 2004; Waugh 2006; Comfort 2002; Mileti 1999; Wise and Nader 2002; Schneider 2005; Birkland 2009). While there is some degree of controversy about these factors, the stages are the centerpiece of CEM methods when addressing hazards in a community.

A lot of emergency management policy throughout its history has been reactive, with greater local focus on the response and recovery stages (McEntire et al. 2002; Donahue and Joyce 2001). Not surprisingly, local government activities and effort seem strongest in the response and recovery phases, providing the clearest definition of control over policy formation and implementation. However, the response by all actors involved (federal, state, and local) to Katrina suggests that several shortcomings exist within the prevailing structure relating to disagreements about the control over policy, even in well-documented aspects of the process (Kweit and Kweit 2006; Neal and Webb 2007; Sobel and Leeson 2006).

Under the post-September 11 federal policy focus, state and local operations are responsible for making up the differences stemming from the shift in federal activities in emergency management and for assuming greater control over the CEM stages, particularly with regard to traditional emergency management activities versus homeland
security functions. As the federal government focuses the majority of its actions on homeland security (terror-specific) related functions, which may not align with CEM stages and standard practices, local governments may have more reason to resurrect local experiences and methods to handle all types of disasters and address the demands of each stage during the hazard cycle as it relates to threats to their jurisdiction.

Therefore, despite the claims by the federal government that it bases its disaster management policy on the CEM-based all-hazards approach, it is clear that terrorism remained DHS’s focus (Birkland 2008; Waugh 2007; Tierney 2005; Waugh 2006; McEntire 2004; Demchak 2002; Scavo et al. 2008; Hite 2006; Lieberman et al. 2007; Edwards 2007; Birkland 2009; Somers and Svara 2009; Birkland and Waterman 2008). Focusing on one particular type of disaster (terrorism) challenges the Department of Homeland Security’s claim to uphold the CEM approach, because when one particular threat receives the main level of focus outside of a traditional rational risk assessment within a community, then CEM protocols do not necessarily apply to it. Ultimately, several theorists agree that the demands from the federal government did not conform to the traditional CEM, all-hazards method for mitigation, preparedness, response, and recovery that served as the prevailing theory and practice prior to September 11, even though the mandates claim to do so (Waugh 2007; Tierney 2005; Waugh 2006; McEntire 2004; Demchak 2002; Scavo et al. 2008; Hite 2006; Lieberman et al. 2007; Gerber and Robinson 2009; Birkland and Waterman 2008).
Policy Implementation Theory

First-Generation

Many scholars claim that the focus and strength of research into policy implementation is its ability to examine specific government policies rather than general theoretical insights (Lester and Goggin 1998; deLeon and deLeon 2002; Saetren 2005). The field generally points to Pressman and Wildavsky’s (1984) famous study of Oakland, California in the late 1960s and early 1970s as the model for “top-down” (federally directed and motivated) policy implementation. In what came to be known as “first generation” implementation research, Pressman and Wildavsky concluded that even under the best-case scenario, the odds remain against program implementation (Pressman and Wildavsky 1984; Alexander 1989; citation redacted for blind review). The authors cite the complex local organizational dynamics, as well as lack of political interest for the implementation of the project from leadership in Washington, as reasons for the sluggish progress and ultimate failure of the implementation process. Simply put, implementation is not separate from the policy itself and those who work to support or hinder its progress. Bowen (1982) later expanded upon this, stating the chance of successful implementation is dependent upon a series of “clearance points” when decisions about the future direction of implementation need to be made by those responsible for the program or policy’s oversight. These decisions include the specific actors involved and what they will do, the finances for the policy’s operation, and associated materials necessary for full implementation of federal policy demands.

However, factors favoring centralization, or a “top-down” methodology, in the field of emergency management may hinder the ability of local officials to respond to or
prepare for situations that require immediate solutions. For instance, a qualitative study of Louisiana emergency managers who worked with FEMA in response to Hurricane Katrina concluded that local officials used protocols and methods required by the federal government only when dealing with the federal government. With local and state peers, local departments reverted to long-standing methods for disaster response and recovery (Neal and Webb 2007). Sobel and Leeson (2006) reaffirmed these findings, citing the slow response to Katrina’s effects as a result of a complex system of bureaucratic checkpoints that, when dismissed or altered to the needs of local demand, became increasingly satisfactory to local actors. Such dismissal of federal guidelines only adds to the complex nature of implementation described by Pressman and Wildavsky, particularly when considering the importance of rapid and flexible problem solving measures, which are necessary both prior to and in response to a disaster of any type.

**Second-Generation**

“Second-generation” implementation research, as created by Goggin and his colleagues (1990), builds upon its predecessors by defining specific variables present across policy fields that may impact the implementation process. Researchers during this “generation” took two distinctly separate paths. Some focused on the “top-down” or “command and control” method, which was an effort to find a way to best describe how to reach a policy’s desired outcome with a focus on the policy’s guidelines and definitions for implementation achievement, along with institutional factors that can influence results. At the same time, others focused on developing a “bottom-up” orientation that states successful policy implementation occurs because of the input of those doing the work of implementation, rather than the policy’s language itself (deLeon
and deLeon 2002; citation redacted for blind review). When studying implementation from the “bottom-up,” authors focused their attention on what happens when local officials have the ability to influence the policy directives’ specific characteristics. If policy makers obtained their objectives, the authors questioned those directly involved in implementing the policy demands at the local level with regards to specific factors (political and policy related) that spurred them to achieve the goal and if they made any changes to the policy based upon their experience in the field during the implementation process (Sabatier 1986).

In attempting to create a model to describe the policy implementation process, Mazmanian and Sabatier (1983) identified three key characteristics that directly impact that process: tractability of the problem, the ability of the statute to structure implementation, and non-statutory variables that affect implementation (Lester and Bowman 1989). Each of these characteristics have a direct impact upon the stages of the implementation process, including the development of agency output, compliance with said output, the impacts (actual and perceived) of the output, and if any revisions of a statute occur. As defined by the three cited characteristics, this model of policy implementation calculates local actors’ understanding of the policy, as well as whether or not they think they need it, to predict the successful implementation of federal statutes. When considered within this model, local actors remain constrained by federal policy standards.

What remains crucial in both first and second-generation studies is the support of key stakeholders, with particular emphasis upon the implementing agency (Albert et al. 2003). While these personal and jurisdictional factors are important, they still do not
address questions regarding what drives an individual towards supporting a particular policy. The models that each generation developed contain flaws that seem to outweigh their overall benefit when researchers use them as a framework for empirical studies.

**Third-Generation**

In the “third generation” of policy implementation researchers sought to develop a means to address problems in earlier theories by establishing a predictive value for the federal (top-down) and local (bottom-up) factors related to policy implementation (Cline 2000; citation redacted for blind review). So-called “third-generation” policy implementation research stem from the original use of a model developed by Goggin and his colleagues’ which attempts to explain how and why state and local governments chose to implement federal policy demands. The “communications model” is based upon an assumption that organizational management issues have direct influence on the implementation and perception of policy (Cline 2000; Cho et al. 2005). According to Goggin and his colleagues (1990), the model creates a means to greater understand relationships in policy implementation, and how relationships matter in as much as directives or decisions that come from a variety of sources at the federal and state/local level (citation redacted for blind review).

The initial study by Goggin and his colleagues (1990) examined federal clean water, hazardous waste, and family planning policies to test the hypotheses and outlet for implementation research, focusing on the “clarity” of the policy requirement as the motivational factor explaining compliance. In their study, policies that had clear-cut language (such as clean water policy) saw higher instances of implementation in an efficient manor, while others that were not as clearly defined or more subject to political
turmoil (such as abortion policy) did not experience a great level of compliance (citation redacted for blind review).

The “communications model” itself breaks factors that influence decision making with regards to implementation into three categories: federal inducements/constraints, state and local inducements/constraints, and state and local capacity. Federal constraints include two variables of interest in this study; policy clarity and coercion in the form of losing grant funding for non-compliance. State and local inducements focus upon the actions taken by organizations, while capacity measurements include such things as personnel, financial consideration, and the political environment of the jurisdiction (Goggin et al. 1990; citation redacted for blind review).

In emergency management, a recent study by Jensen and Youngs (2014) substantiated the importance of policy clarity in their study of NIMS implementation practices within counties from across the country. But, their results showed that clarity itself was not enough; the managers were more likely to conform with federal policy demands when they thought NIMS was clear and specific, that sanctions were likely, and that capacity building resources were available. A study by (citation redacted for blind review process) further supports the importance of policy clarity in emergency management. In that study, the odds of reported compliance with NIMS and NRP standards increased when respondents to the survey reported greater clarity in policy language.
**Coercive Federalism**

Coercive federalism deals with efforts made by the federal government to increase its control over a myriad of policies via a series of threats if local jurisdictions do not comply. May and Burby (1996) describe coercive policies as leaving local governments with little-to-no discretion when implementing. These policies could be regulatory or statutory in nature, and involve funded or unfunded mandates (Cho and Wright 2004; Posner 2007; citation redacted for blind review). By design, grant funding is coercive in nature since locations have to comply in order to keep the cash flowing for specific policy actions. The availability of coercive mandates grows with each passing year, and is something that crosses party boundaries when developed and implemented at the federal level.

The use of coercive policy tactics helped to support the development of the “War on Terror” during the George W. Bush administration. For instance, Posner (2007) cites NIMS as one of several policies that are coercive in nature and seek to enhance the federal government’s desire to enhance command and control over emergency management policy. NIMS implementation is tied to the receipt of grant funding and equipment that support mitigation and preparedness efforts (Edwards 2007).

While it seems clear that the role of the federal government in emergency management has changed since the September 11 attacks, what is not clear is how involved the federal government is in following up with the coercive threats embedded within the policies. May and his colleagues (1996) claimed that if the federal government lacks funding as an inducement, it leads to the federal government doing more to enforce
policy rather than further policy development, innovation, and flexibility. But, Jensen’s (2009, 2010, 2011) research illustrated how the federal government makes a limited effort to determine the usage of NIMS in day-to-day operations, or if it’s even useful for local emergency management needs despite its desire to standardize operations nationwide. Furthermore, Jensen’s research on the ICS with Waugh (2014) and with Thompson (2016) extends this theme as it portrays an inconsistently used or implemented system between jurisdictions and departments. Also, a study by (citation redacted for blind review) found limited effects from coercion elements, such as potential loss of grants, when local actors decide whether or not to comply with federal policy demands. The study considered control over the specific hazard cycle phases in general, as well as compliance with NIMS and NRP demands for mutual aid and conducting drills, and found only that local experience in preparing for terrorism increased the odds that local actors reported compliance with the federal policy demands. The potential loss of grants that jurisdictions had received in that study did not play a significant role in enhancing the odds of compliance with federal policy demands when implementing, bringing into question the power of coercion in this field.

So while federal policy demands have been reported to be implemented successfully in some locations to researchers, it appears that simply mandating (and indeed coercing) its implementation does not mean it will actually take place. This reinforces other research that demonstrates how local actors may have differing opinions regarding the meaning of “compliance” with federal policy demands, and what effects they may experience should the local jurisdictions stray from the federal policy demands (Baldassare and Hoene 2002; Kincaid and Cole 2002; Dawes et al., 2004; Brown 2005;
Caruson and MacManus 2006; Sobel and Leeson 2006; Neal and Webb 2006; Reddick 2008; Scavo et al. 2008; Jensen 2009, 2010, 2011; Jensen and Waugh 2014; citation redacted for blind review). It also supports claims that the lines for responsibility over emergency management and homeland security actions remain unclear at best (Birkland and Waterman 2008; Lindsay 2008).

However, some local actors remain compelled to comply with federal policy demands even if it means the new systems makes significant changes to their organization simply because they cannot risk losing grant funding. This could occur despite objections by local actors to the federal interjection in the field (Hill and Hupe 2003; May et al. 1996; Jensen 2010; Teeter 2013; citation redacted for blind review). But, when considering limitations to coercion explained in other studies, and the limitations of the federal government when enforcing coercive elements of the policies, local actors may be selective in what they decide to implement from the federal policies, and simply report compliance. Thus, coercion as a metric is based upon the perceived weight of the threat from the federal government by the respondent. If they think, based on experience that they could circumvent the rules without risking funding, they may choose to do so. But, this would mean the goals of the policies (to enhance standardization and centralization) would struggle to be met, in a manner described by Jensen and Waugh (2014) and Jensen and Thompson (2016).
Methodology

In order to test whether there is a change in how local organizations perceive control over particular actions within each phase of the “hazard cycle” a survey of local emergency management professionals nationwide went into the field in May and June of 2008. In total, 2,422 local (county, municipality, and tribal nation) emergency management professionals (who varied in title from “emergency management coordinator” to “police/fire chief” among others) received an invitation to participate in the study. 540 responded, giving the survey a response rate of 22.3%. This response rate falls in-line with other web-based surveys with similar sample sizes (Nulty 2008; Kaplowitz et al. 2004). The respondents represented 48 states (Hawaii and Vermont had no respondents though they were part of the survey field), with jurisdictions ranging in population from 130 people to 1.84 million people as part of the response set. The survey featured questions designed to gage the perceptions of control and responsibility that local officials have over emergency management practices, and their attitudes about the federal policy demands. Additionally, demographic information was collected about the respondent and the department’s jurisdiction.

Hypotheses were created based upon the literature review of the field of emergency management as well as from policy implementation and coercive federalism. These hypotheses focus upon three key factors that were believed to influence the decision of local actors to comply with federal demands. In this case, compliance is defined as reporting federal control over certain tasks within each stage of the hazard cycle to the federal government. The factors believed to influence this decision include the local department’s long-term use of CEM practices for terrorism and natural disasters,
the receipt of specific grant funds that contained language which threatened to limit/cease the money supply to those jurisdictions that did not comply with the federal policy demands (a measurement of coercion), and if the respondents felt the language/requirements of the policy were clear to them (testing policy “clarity” a-la earlier studies in third-generation implementation theory). The following three hypotheses will test the influence of these variables:

**Hypothesis A:** Respondents whose jurisdiction used CEM principles prior to the September 11 attacks will have greater odds of reporting federal control over specific tasks within each stage of the “hazard cycle”.

**Hypothesis B:** Respondents who reported the receipt of at least one key grant will have greater odds of reporting federal control over specific tasks within each stage of the “hazard cycle”.

**Hypothesis C:** Respondents who report a higher degree of “policy clarity” within the federal policy demands will have greater odds of reporting federal control over specific tasks within each stage of the “hazard cycle”.

**Dependent Variable Measurement**

The dependent variables for this study are developed from the assumption that the post-September 11 policies have a greater degree of command and control over the emergency management field. Specifically, these measures focus upon the call for DHS/FEMA to have “primary responsibility” over disaster operations (Takeda and Helms 2006; Lester and Krejci 2007; Posner 2007; Department of Homeland Security 2008; citation redacted for blind review). Respondents were asked whom they perceived as in control (federal or local officials) of specific tasks that traditionally are standard
practice in CEM, or would be obvious to do when preparing for and responding to catastrophic events. Four tasks within each phase of the “hazard cycle” were considered. The results of correlation testing led to the combination of each task into joint variables for each stage of the “hazard cycle”. In developing index variables, each task within each phase of the “hazard cycle” was added together. Each time federal control was cited by the respondent a value of +1 was given to the index. Each local response garnered a -1 tally for the index. Table 1 lists the tasks considered as part of each phase’s index variable. These variables serve as the primary measurement for the dependent variable for perception of control.

**INSERT TABLE 1 HERE**

In order to comply with federal demands, local actors should recognize the “primary responsibility” aspect tied into these actions should be needed before, during, or after a disaster. Additionally, since the policies require the local governments to conduct activities in a manner that comply with the regulations, actors should be in recognition of the greater role played by the federal government of these operations, at least if they alter what local governments did in the past. If gaps exist, and local governments still see these tasks as their own, then explanation is necessary to determine why local actors do not meet the federal policy demands. This is where testing of the hypotheses related to CEM experience, coercion, and policy clarity come into play.

**Independent Variable Measurement – Federal Inducements**

The original “communications model” breaks independent variables that influence the decision to meet policy demands into three categories. The first of which is federal
level inducements. In this study, inducements are the focus of two hypotheses: Hypothesis B deals with potential effects from coercion and Hypothesis C focuses on policy “clarity”. The metric for coercion is the acceptance of at least one of four grants that included direct threats if jurisdictions did not comply with the NRP, NIMS, and ICS. These grants of interest are the Flood Mitigation Assistance Program, the Hazard Mitigation Grant Program, the Homeland Security Grant Program, and the National Infrastructure Protection Plan. For the testing of policy clarity, respondents were asked to rate on a likert scale from 0 (completely unclear) to 5 (completely clear) their level of understanding of NIMS and the ICS. As a result of collinearity testing, these metrics were combined into an index term with the results from both policies added together (citation redacted for blind review).

**Independent Variable Measurement – Local Inducements**

Local inducements per Goggin and his colleagues (1990) delve into the specific characteristics of the organizations, and the actions taken by these organizations. In the case of this study, three metrics of local inducements are considered, two of which are the focus of Hypothesis A (CEM tool usage). The timing of these metrics are significant for this study, since it is believed that greater experience with these inducement variables will influence the actions taken by the local organization. Therefore, all three metrics consider whether or not the jurisdiction undertook these actions prior to the September 11 attacks. The first metric, which is not part of the hypotheses, is the participation in mutual aid agreements by the jurisdiction. This is measured as if the respondent’s jurisdiction reported participation in at least one mutual aid agreement. The other metrics focus on the use of other specific CEM “tools” to prepare for and respond to disasters. These tools
include participation in a risk assessment, drill, or exercise. In this case, respondents were asked about these actions as they related directly to natural disasters and actions related to terrorism in separate measurements. Not surprisingly, collinearity testing showed that departments who used one of these CEM “tools” within each category were likely to use all of them. Thus, index terms were created for natural disaster related actions, and another for terror-related actions (citation redacted for blind review). Hypothesis A assumes that those who are more active in using these CEM tools prior to the September 11 attacks are less likely to set their experience aside to mesh with federal expectations, and to cite federal control over said actions.

**Independent Variable Measurement – Local Capacity**

Metrics related to organizational capacity allow for differences between the size and scope of organizations to play a role in determining the ability of the local organization to comply with federal expectations. Previous studies by Hall (2008) and Honadle (1981) expand upon and help to shape the definition of capacity metrics used by Goggin and his colleagues (1990) to include the organization’s financial and manpower resources, its ability to change and influence policy, to develop programs on their own, and to evaluate current activities when planning for the future. In this study, organizational capacity metrics include the type of jurisdiction (municipality or county; the lack of responses from tribal nations precluded them from testing), the population of the jurisdiction (logged), the FEMA geographic region of the jurisdiction, the degree of change to the department’s budget and to the full-time equivalency of staff in the organization between the September 11 attacks and the time that the survey went into the field in 2008. All of these factors have to potential to influence the jurisdiction’s ability to
develop policy, raise funding, and direct the actions taken by the agency in preparing for and responding to all kinds of incidents.

Limitations

As with any survey, it is only as valid as it is understandable by those responding. The generalizability of results can also be impacted by the response rate to the survey. Issues with selection bias are overcome by the development of the sampling frame used in the study; local emergency management professionals with readily available contact information (Schonlau et al. 2006). Additionally, while the survey provided key term definitions, the perception of the respondents to terms such as “compliance” may vary from person to person. The phrasing of some questions are designed to limit problems with clarity or misunderstanding the survey’s intentions, but providing too much detail could affect the results by leading respondents in certain directions, or distract them by creating a long survey that takes too much time to complete.

Additionally, the survey is a reflection of a point in time. Changes to the policy that came after the fielding of the survey (such as the phase-out of the NRP and phase-in of the NRF) may alter later results, but are not reflected in the snapshot of time used by this survey. Additionally, historical events, or even routine daily activities may impact the respondent’s beliefs and opinions, but not in any predictable way that may alter the outcome of the survey. While previous research highlights the importance of disasters on policy change and attitudes towards policies in general (Birkland 1997), it is unclear how events such as Hurricane Katrina or attacks on the London transportation network in 2005 may have influenced the responses to the survey.
Findings

Table 2 illustrates results from ordinal regression testing for each hypothesis in the study. In only one hazard cycle stage, response, is statistical significance found when considering the entire adapted communications model. This lack of statistical significance for that actions taken with three of the four phases of the hazard cycle using the adapted communications model, along with the findings for the stages as a whole, suggests that the hypotheses should be rejected. This is emphasized where model significance was found in the response phase since the use of natural disaster tools is found to have significant odds within the model, but in favor of local control over response actions, not federal (since the odds ratio is less than 1). This suggests local actors are not eschewing their background and experiences if they do not mesh with federal policy demands, and keeping control of tasks that have traditionally been in their domain.

**INSERT TABLE 2 HERE**

Looking deeper at each hypothesis we see very limited effects from each when looking at the entire adapted “Communications Model” used in this study. Both coercion (grants) and clarity have no statistically significant effect within the model. With local actors who performed tasks using CEM “tools” before the September 11 attacks driving the model, the findings reiterate the literature that illustrates a divide between the actions of local managers and the desires of federal policy demands (Lehrer 2004; Waugh 2005; Neal and Webb 2007; Waugh 2004; Jensen and Youngs 2014; citation redacted for blind review).
To further test the hypothesis, I ran ordinal testing once again, this time focusing on the task within each phase of the hazard cycle that had the greatest level of support for federal control. These tasks include hazard information system development (mitigation phase), lead emergency management efforts (preparedness phase), broadcast actual emergency communications (response phase), and staff disaster assistance centers (recovery phase). Table 3 shows the results in the form of odds ratios and significance for each task.

**INSERT TABLE 3 HERE**

The results shown in Table 3 partially reiterate the findings of the previous model’s testing. This time, the full models for two tasks had statistical significance; hazard information system development (mitigation phase) and broadcast actual emergency communications (response phase). For the latter, managers who performed CEM tasks to prepare for natural disasters before the September 11 attacks had greater odds of favoring local control over broadcasting actual emergency communications. However, policy clarity was found to be significant at the .10 level in that model as well, but the odds ratio slightly favors local control as well. This is an interesting finding, since one would believe the language favors centralization and federal control based on the efforts made by the federal government, and earlier research. But, these local actors are reading the policy, claiming it is clear to them, and still favoring local control over what occurs, even if this means the actions are not in compliance with the centralized desires of federal policy demands.

Policy clarity and grant receipts are found to be significant for hazard information system development in the mitigation phase. However, the odds ratios for each variable
go in opposing directions. The receipt of grants favors greater federal control over the actions taken for this task, which supports the idea that coercion could matter in local decision making. But, once again the direction of the odds ratio for clarity favors local control over this task. So the respondents seemingly are reading the policies, claiming to support federal control (or doing what they need not to jeopardize grant funding), but still doing their own thing when it matters. This finding is similar to Jensen’s (2009; 2010; 2011) research that claims the federal government is not closely enforcing NIMS, which leading to a system that is not as standardized as the policy sought to accomplish.

**Hypothesis Review**

The results of ordinal regression testing suggest that all three hypotheses should be rejected. The overall lack of statistical significance when testing for the perception of control over the indexed tasks in three of four of the hazard cycle phases, and for specific tasks in two phases, suggests that the local actors may not be complying with all aspects of the federal policy demands. Indeed, where there was significance it was favoring local managers continuing on their own path, while perhaps incidentally complying with select federal policy demands along the way. In the statistically significant models, the effects from the use of CEM principles prior to the September 11 attacks (hypothesis A) suggested that those who performed these tasks for natural disasters favored local control over response actions. This is not surprising, especially in response, where local actors are usually always the first on the scene to deal with problems, and want to retain their own methods to handle these incidents (McEntire et al. 2002; Donahue and Joyce 2001). This finding also reiterates the differences between natural disaster and terror-related efforts in emergency management. Perhaps local actors feel as if the federal prescriptions
for such actions are not fully aligned with their older compacts or strategies, and use the federal policies in a supplementary role (if not outright ignoring them) when performing these traditional CEM-based tasks.

Furthermore, grant receipts (hypothesis B) had limited statistically significant effect within the models, demonstrating the limited impact coercion has within the field at the time the survey was in the field. Where it was found to be statistically significant, it did suggest the actors favored federal control over one mitigation-related task, hazard information system development. But this effect appears limited to this task, and cannot be generalized to say that the actors were coerced to comply (leading to the full rejection of the hypothesis). Especially considering the same model showed that policy clarity (hypothesis C) was statistically significant as well, but in favor of local control over the tasks. With clarity favoring local control in both instances the model had statistical significance, this hypothesis was also rejected.

**Concluding Remarks**

These findings show limited effects demonstrating that coercion or policy clarity mattered in the support of federal policy demands for enhanced centralization in the emergency management field. With no perceived threat of enforcement, these actors seem to be acting in an “opportunistic” manner as suggested by Birkland and Waterman (2008) in that they are reporting compliance, but using the materials provided to enhance their own efforts but not relinquish control to federal actors. As (citation redacted for blind review) also suggested, local actors must not be feeling the full effect of coercion in the emergency management field.
It is important to note that since this survey went into the field, the NRP was replaced by the NRF. There have also been several significant natural disasters (such as Hurricane Sandy in 2012) and terror events (such as the San Bernardino massacre in 2015) on American soil. These policy changes and events have further altered the field of emergency management, and obviously further research is needed to see how emergency management has evolved during the Obama administration with relation to policy implementation theory. Follow-up surveys may produce results that still show disparity between the levels of government, but it is also possible that the NRF and other events may have enhanced centralization efforts in a manner the policies desire.

References


with an Application to Federal Budgeting.” Public Administration Review. 61 (2001):
728-740.

Drabek, Thomas and Gerard Hoetmer. 1991. Emergency Management: Principles and

Gerber, Brian and Scott Robinson. “Local Government Performances and the Challenges
of Regional preparedness for Disasters.” Public Performance and Management Review.

Implementation Theory and Practice Toward a Third Generation. Glenville, IL: Scott,
Foresman/Little, Brown Higher Education.


Esinger, Peter. “The American City in the Age of Terror: A Preliminary Assessment of


Haddow, George, Jane Bullock, and Damon Coppola. 2008. Introduction to Emergency

Hall, Jeremy. “The Forgotten Regional Organizations: Creating Capacity for Economic

Henstra, Daniel. “Evaluating Local Government Emergency Management Programs:
What Framework Should Public Managers Adopt?” Public Administration Review,

Hite, Monique. “The Emergency Manager of the Future.” National Research Council of
the National Academies, 2003.
(accessed May 14, 2016).

Honadle, Beth. “A Capacity Building Framework: A Search for Concept and Purpose.”

and Disasters. 27 (2009): 218-249.


Intergovernmental Approaches to Hazards and Sustainability. New York: Routledge Press.


2 Additional citations redacted for blind review process
### Table 1: Hazard Cycle Dependent Variable Index Term Make-Up

<table>
<thead>
<tr>
<th>Stage of Hazard Cycle</th>
<th>Tasks Considered in Study/ Development of Index Term</th>
</tr>
</thead>
</table>
| Mitigation            | - Building Code Development  
                        | - Hazard Information System Development  
                        | - Land Use Management  
                        | - Inspection of Public/Private Facilities |
| Preparedness          | - Establishment of Emergency Operations Centers  
                        | - Broadcast Trial Emergency Communications  
                        | - Lead Emergency Management Efforts  
                        | - Create Emergency Warning Systems |
| Response              | - Activate Emergency Plans  
                        | - Broadcast Actual Emergency Communications  
                        | - Mobilize Necessary Resources  
                        | - Search and Rescue Operations |
| Recovery              | - Perform Damage Assessments  
                        | - Reassess Emergency Plans  
                        | - Staff Disaster Assistance Centers  
                        | - Assess Response Performance |
Table 2: Adapted Communications Model Testing of Perception Dependent Variables for Federal Control of Functions in Each Hazard Cycle Phase (Odds Ratios and Significance)

<table>
<thead>
<tr>
<th></th>
<th>Mitigation Index</th>
<th>Preparedness Index</th>
<th>Response Index</th>
<th>Recovery Index</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal Inducements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy Clarity Index</td>
<td>.980</td>
<td>.<strong>954</strong></td>
<td>.964</td>
<td>1.01</td>
</tr>
<tr>
<td>Received One or More Grants</td>
<td>1.29</td>
<td>1.08</td>
<td>.788</td>
<td>.946</td>
</tr>
<tr>
<td><strong>Local Inducements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participates in One or More Mutual Aid Agreements</td>
<td>1.34</td>
<td>1.06</td>
<td>1.13</td>
<td>1.00</td>
</tr>
<tr>
<td>Natural Disaster Action Index</td>
<td>.920</td>
<td>.992</td>
<td>.<strong>789</strong>*</td>
<td>.903</td>
</tr>
<tr>
<td>Terrorism Action Index</td>
<td>.910</td>
<td>.875</td>
<td>.910</td>
<td>1.02</td>
</tr>
<tr>
<td><strong>Local Department Capacity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County</td>
<td>.808</td>
<td>.786</td>
<td>.869</td>
<td>1.01</td>
</tr>
<tr>
<td>Increase in Annual Department Budget</td>
<td>.911</td>
<td>.944</td>
<td>1.20</td>
<td>.857</td>
</tr>
<tr>
<td>Population (log)</td>
<td>.970</td>
<td>.925</td>
<td>.861</td>
<td>.913</td>
</tr>
<tr>
<td>FEMA Region #4</td>
<td>1.04</td>
<td><strong>1.40</strong></td>
<td>1.00</td>
<td>1.19</td>
</tr>
<tr>
<td>Increase in FTE Staff Size</td>
<td>1.26</td>
<td>.955</td>
<td>.850</td>
<td>.986</td>
</tr>
<tr>
<td>p</td>
<td>.260</td>
<td>.249</td>
<td>.003</td>
<td>.899</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>.01</td>
<td>.01</td>
<td>.02</td>
<td>.003</td>
</tr>
<tr>
<td>N</td>
<td>493</td>
<td>493</td>
<td>493</td>
<td>493</td>
</tr>
</tbody>
</table>

*** p < .01, ** p < .05, * p<.10
Table 3: Adapted Communications Model Testing of Perception Dependent Variables for Federal Control of Specific Functions in Phase of the Hazard Cycle (Odds Ratios and Significance)

<table>
<thead>
<tr>
<th></th>
<th>Hazard Information System Development (Mitigation)</th>
<th>Lead Emergency Management Efforts (Preparedness)</th>
<th>Broadcast Actual Emergency Communications (Response)</th>
<th>Staff Disaster Assistance Centers (Recovery)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal Inducements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy Clarity Index</td>
<td><strong>.936</strong></td>
<td>.960</td>
<td><strong>.944</strong></td>
<td>.991</td>
</tr>
<tr>
<td>Received One or More Grants</td>
<td><strong>1.39</strong></td>
<td>1.00</td>
<td>.784</td>
<td>1.06</td>
</tr>
<tr>
<td><strong>Local Inducements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participates in One or More Mutual Aid Agreements</td>
<td>1.17</td>
<td>1.13</td>
<td>1.29</td>
<td>.830</td>
</tr>
<tr>
<td>Natural Disaster Action Index</td>
<td>.941</td>
<td>.984</td>
<td><strong>.746</strong>*</td>
<td>1.12</td>
</tr>
<tr>
<td>Terrorism Action Index</td>
<td>.921</td>
<td><strong>.840</strong></td>
<td>.956</td>
<td>1.09</td>
</tr>
<tr>
<td><strong>Local Department Capacity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County</td>
<td>.698</td>
<td>.673</td>
<td>1.07</td>
<td>.964</td>
</tr>
<tr>
<td>Increase in Annual Department Budget</td>
<td>.936</td>
<td>1.14</td>
<td>1.19</td>
<td>.969</td>
</tr>
<tr>
<td>Population (log)</td>
<td><strong>.774</strong></td>
<td>1.10</td>
<td>.943</td>
<td>.916</td>
</tr>
<tr>
<td>FEMA Region #4</td>
<td>1.20</td>
<td>1.27</td>
<td>.793</td>
<td>1.13</td>
</tr>
<tr>
<td>Increase in FTE Staff Size</td>
<td>1.13</td>
<td>.907</td>
<td>1.07</td>
<td>.940</td>
</tr>
<tr>
<td><strong>p</strong></td>
<td>.01</td>
<td>.406</td>
<td>.01</td>
<td>.867</td>
</tr>
<tr>
<td><strong>Pseudo R^2</strong></td>
<td>.02</td>
<td>.01</td>
<td>.03</td>
<td>.004</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>458</td>
<td>461</td>
<td>468</td>
<td>467</td>
</tr>
</tbody>
</table>

*** p < .01, ** p < .05, * p<.10