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THE POST-9/11 FEDERAL HOMELAND SECURITY PARADIGM AND
THE ADOPTIVE CAPACITY OF PUBLIC ADMINISTRATION THEORY AND
PRACTICE

A dissertation submitted in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in Public Policy and Administration at
Virginia Commonwealth University

by

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I dedicate this dissertation to my beloved parents--my mother, Mrs. Rama R. Jain, and my papa, Mr. Behari Lal Jain.
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<th>Full Form</th>
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<tbody>
<tr>
<td>9/11</td>
<td>September 11, 2001</td>
</tr>
<tr>
<td>CBRNE</td>
<td>Chemical, Biological, Radiological, Nuclear, Explosive</td>
</tr>
<tr>
<td>CEM</td>
<td>Comprehensive Emergency Management</td>
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<tr>
<td>CND</td>
<td>Council of National Defense</td>
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<tr>
<td>DHS</td>
<td>Department of Homeland Security</td>
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<tr>
<td>DoD</td>
<td>Department of Defense</td>
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<td>EMS</td>
<td>Emergency Management Services</td>
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<td>EO</td>
<td>Executive Order</td>
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<td>EOP</td>
<td>Emergency Operation Plan</td>
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<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
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<td>FHS</td>
<td>Federal Homeland Security</td>
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<td>GAO</td>
<td>Government Accounting Office</td>
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<td>HS</td>
<td>Homeland Security</td>
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<tr>
<td>HSC</td>
<td>Homeland Security Council</td>
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<tr>
<td>IEMS</td>
<td>Integrated Emergency Management System</td>
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<tr>
<td>NLC</td>
<td>National League of Cities</td>
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<tr>
<td>NPM</td>
<td>New Public Management</td>
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<td>NRP</td>
<td>National Response Plan</td>
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<td>NSC</td>
<td>National Security Council</td>
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<td>OHS</td>
<td>Office of Homeland Security</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>OWM</td>
<td>Office of War Mobilization</td>
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<tr>
<td>PA</td>
<td>Public Administration</td>
</tr>
<tr>
<td>PD</td>
<td>Presidential Directive</td>
</tr>
<tr>
<td>VDEM</td>
<td>Virginia Department of Emergency Management</td>
</tr>
<tr>
<td>WMD</td>
<td>Weapons of Mass Destruction</td>
</tr>
<tr>
<td>WH</td>
<td>(The) White House</td>
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ABSTRACT

THE POST-9/11 FEDERAL HOMELAND SECURITY PARADIGM AND THE ADOPTIVE CAPACITY OF PUBLIC ADMINISTRATION THEORY AND PRACTICE

By Chaya R. Jain, Ph.D.

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University.

Virginia Commonwealth University, 2006.

Major Director: William W. Newmann, Ph.D., Committee Chairman
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The September 11, 2001 terrorist attacks redefined the federal approach to disaster planning. Prior to 9/11, disaster and emergency management meant preparedness for and response to natural and man-made emergencies such as floods, hurricanes, fires, and civil discord. The post-9/11 paradigm shift, a multi-pronged approach called “homeland security” strategy, now incorporates a multitude of man- and nature-made disasters to include border and transportation security; emergency preparedness, response and recovery against chemical, biological, radiological and nuclear threats; as well as information analysis and infrastructure protection. These new priorities were communicated to the state and local governments.

The purpose of this descriptive, cross-sectional study is two-fold: to analyze the post-9/11 federal homeland security (FHS) priorities’ acceptance among the Virginia’s
local public emergency-management practitioners; and, explore the factors that explain the degree of adoption.

The degree to which Virginia localities have adopted the FHS priorities is investigated through an opinion survey of Virginia’s local practitioners. The survey is designed to shed light upon two key research questions: (1) Have the priorities of the new federal homeland security strategy been accepted as the local priorities? (2) Is population a factor whether or not the federal HS priorities were accepted? It is hypothesized that (1) localities have paralleled the federal government in expanding their approach to disaster management; and, that (2) larger localities (population greater than 50,000) have done so to a greater extent than the small ones (population up to 50,000). Each research hypothesis is tested through operationalization of five federal HS priorities.

This study’s survey instrument replicates California’s August 2002 survey questionnaire, administered less than a year from the terrorist attacks. While California findings show local practitioner’s acceptance of the federal priorities in general, crime and economic concerns reported to be the officials’ top two concerns over the homeland security-related threats. This study also explores the probable theoretical explanation of the overall FHS priorities acceptance or lack thereof, by analyzing the two likely

---

1 In August 2002, the National League of Cities employed the Public Policy Institute of California to send a direct mail and fax survey titled “Coping with Homeland Security: Perceptions of City Officials in California, 2002” to city officials in all of California’s 478 cities. A total of 317 surveys were completed and returned, constituting a 66 percent response rate. In November 2004, the same survey was replicated in Virginia. A total of 141 were mailed. A total of 84 surveys were completed and returned constituting a 60% response rate.
explanatory concepts: path dependence and bureaucratic management. It is hoped that operationalization of these explanatory models will facilitate the development of future surveys to allow for a greater understanding of local responses.

The questionnaire was mailed to Virginia’s all 141 local practitioners to collect their perceptions regarding the FHS strategy’s five priorities: (1) homeland security as the primary mission for local emergency management; (2) increased level of HS-related planning and preparedness; (3) increased intergovernmental cooperation; (4) increased citizen participation; and, (5) increase in HS-related spending. The findings were used in evaluating: (a) the localities’ acceptance of the federal priorities; and (b) localities’ comparison based on the two populations groups: small (up to 50,000) and large (over 50,000).

Because California’s survey instrument was replicated to determine Virginia officials’ perceptions, a comparison of Virginia and California officials’ opinions was conducted to compare similarities and differences between the two states over a three-year gap.

The overall findings of this study will help expand the existing knowledge concerning localities and homeland security. They will also help with policy decisions at state and local levels, particularly in matching homeland security needs with scarce federal resources.

While the evolution of homeland security and emergency management policies before and after 9/11 suggest that path dependence and bureaucratic management played
a critical role in persuading the localities to follow federal policies and guidelines, the survey questions do not directly answer why the new FHS priorities were accepted. Future researchers may benefit by modifying the existing survey instrument by adding a couple of questions to get at the “why” question more effectively. For example, practitioners may be asked the degree of their compliance to federal requirements.
CHAPTER ONE
INTRODUCTION

Overview

The August 2002 survey of California emergency management officials showed acceptance of the federal priorities within eleven months of the terrorist attacks. However, traditional public administration (PA) theory and practice suggest it should take years if not decades to enact such a transformation (Balogh, Grisinger and Zelikow, 2002; Abramson and Lawrence, 2001; Judson 1991; Kotter, 1995; Carnall 1995; Lambright 2001; Nadler and Nadler 1998; Young 2001). This study seeks an explanation of this apparent discrepancy.

Replicating California’s survey instrument in Virginia, this descriptive, cross-sectional study examines whether or not the post-9/11 FHS priorities were accepted among Virginia’s local practitioners. A survey of Virginia’s 141 local emergency management practitioners was employed to determine the level of acceptance. Additionally, the question of whether population size played a role in the level of acceptance was examined. Two research questions were analyzed: (1) Have the priorities of the new federal homeland security strategy been accepted as the local priorities? (2) Is population a factor in whether or not the federal HS priorities were accepted? Five corresponding hypotheses were used in testing each of the five federal HS priorities with the general premise that: (a) the localities accepted federal priorities; and, (b) a greater
proportion of larger populations (i.e., above 50,000) have accepted the FHS priorities than their smaller counterparts (up to 50,000). The five FHS priorities used as measurement were: (1) homeland security as the primary mission for local emergency management; (2) increased level of HS-related planning and preparedness; (3) increased intergovernmental cooperation; (4) increased citizen participation; and, (5) increase in HS-related spending.

This study also seeks to explore theoretical concepts that may explain FHS priorities’ acceptance or non-acceptance at the local level. Two likely concepts--path dependence and bureaucratic management--are analyzed to determine their role in the context of FHS priorities.

Survey findings suggest localities’ overall acceptance of the five FHS priorities. In response to the first priority, HS as the primary mission for local emergency management, the majority expressed that investing in terror prevention, preparedness and training has indeed become a priority. Similarly, for the remaining four FHS priorities: increased level of HS-related planning and preparedness; increased intergovernmental cooperation; increased citizen participation; and increase in HS-related spending, the findings indicate localities to be in lock-step with federal priorities.

Analysis of the evolution of federal-local relationships (i.e., path dependence) and the federal actions designed to persuade localities to follow federal priorities and guidelines (i.e., bureaucratic management) suggest the two concepts do much to explain
the swift implementation and acceptance of the federal HS priorities. In implementing
the post-9/11 strategy, primarily, the same old policies were modified and executed. The
federal government also used bureaucratic means, such as legislation (i.e., regulatory
compliance) and funding to compel and/or persuade localities to adopt HS priorities the
federal way.

Because the survey replicates the one administered in California, a comparison
was also conducted to determine similarities and differences in perception of the two
states’ practitioners across a two-year gap. The California survey was conducted in
August 2002 and Virginia’s in November 2004. Findings show surprising level of
similarities in spite of the gap of two years as well as geographic separation between the
two states.

For future, the questionnaire should include specific questions that directly
address why localities adhered to federal HS priorities.

**Background**

The 9/11 terrorist attacks redefined the federal approach to disaster planning. In
the past, it was defined as preparedness for and response to natural and man-made
emergencies such as floods, hurricanes, fire, and civil discord. After 9/11, the federal
definition of homeland security expanded to incorporate border and transportation
security, emergency preparedness and response, chemical, biological, radiological and
nuclear countermeasures, and information analysis and infrastructure protection. The
post-9/11 FHS strategy has resulted in expanded planning, preparedness, response, recovery and mitigation responsibilities at all levels of government.

**The Post-9/11 Federal Homeland Security Strategy**

The post-9/11 FHS strategy is comprised of a multi-pronged approach that summarizes the new priorities to be “a concerted national effort to prevent terrorist attacks within the United States, reduce America’s vulnerability to terrorism, and minimize the damage and recover from attacks that do occur.” Although on July 16, 2002, President George W. Bush declared the National Strategy for Homeland Security that laid out the new national homeland security plan in theory, the organization authorized to handle the charge—the Department of Homeland Security (DHS)—was not created until February 2003. To spearhead the new direction, FEMA was reenergized as a “point of contact for state and local governments, the private sector, and the American people” (*Strategy*, 2002).

Strategy analysts Rubin and Renda-Tenali (2002) discuss five impacts of the shift in FHS strategy: (1) a major shift in federal willingness to combat terrorism; 2) legislation; 3) major changes in national priorities and budgets; 4) major organizational restructuring at all levels of government; and, 5) overwhelming bipartisan actions by the executive and legislative branches, resulting in a surge of reports, documents, legislation, Executive Orders, key federal response plans, and mandates. The change in the federal government’s traditional role and its priorities meant new requirements at the state and local levels (Figures 2 and 3) and their participation at all stages i.e., planning, prevention
(preparedness), response, recovery, and vulnerability reduction. As a result, for an evaluation of the acceptance of FHS priorities, this study’s survey instrument utilizes five key priorities: (1) homeland security as the primary mission for local emergency management; (2) increased level of HS-related planning and preparedness; (3) increased intergovernmental cooperation; (4) Increased citizen participation; and (5) increase in HS-related spending.

Figure 1 –The Post-9/11 Federal Homeland Security Dynamic

Objectives:
Planning, Prevention, Response, Recovery and Vulnerability Reduction

Players:
Federal, State, Regional & Local govts, Non-Profits, Private Sector & International Entities

Critical Mission Areas
(as defined in Strategy)
Figure 2 – Post-9/11 Federal Homeland Security and the Shared Responsibility between Federal, State and Local Governments

1. **Prevention:**
   - Deter potential terrorists.
   - Detect terrorists, prevent them and their weapons from entry, and eliminate the threats they pose.
   - Take action at home and abroad.

2. **Preparedness:**
   - Identify and protect critical infrastructure and key assets, and augment defenses.
   - Balance benefits of mitigating risk against economic costs and infringements on individual liberty.

3. **Response & Recovery:**
   - Manage the consequences of the systems and prepare individuals who will respond.
   - Build and maintain financial, legal and social systems to recover.

**Federal HS Strategy and State and Local Governments:**

The post-9/11 environment did not allow time to implement the FHS strategy formally; however, transmittal and acceptance of the FHS strategy at the state and local levels appears to be swift. In the days following the announcement of the FHS strategy, state and local governments across the nation followed suit. Their actions included reorganizing and/or expanding the state and local emergency management agencies, or, in some cases, creating them from whole cloth. According to the Council of State Governments (2003), in the immediate aftermath of the 9/11, nineteen states created new positions, offices or agencies to spearhead homeland security. By July 2003, all fifty states had established state offices of homeland security. The remaining thirty-one states...
incorporated additional HS-related responsibilities into existing entities. At least seven states elevated homeland security offices to responsibilities cabinet-level departments (Alabama, Massachusetts, New York, Missouri, Tennessee, Wyoming, and Virginia.) An almost equal number placed this position within their State Department of Military Affairs. Several states placed their homeland security office within the Governor’s Office. At least eighteen placed their agencies in their Department of Public Safety or Emergency Management (Council of State Governments, 2003).

In Virginia, the state legislature amended §44.146.19 of the Code of Virginia on March 22, 2003 to authorize a new job-class, emergency management coordinator, for Virginia jurisdictions. The existing Virginia Department of Emergency Management (VDEM) expanded its staffing from the pre-9/11 level of 84 personnel to 110, an increase of 24%. By July 2004, a total of 141 new local positions were occupied within Virginia’s 95 counties, 40 cities and six towns (VDEM, 2004). By November 2004, Virginia localities were developing local citizen emergency response teams and upgrading their local emergency operation plans according to the National Response Plan’s emergency support function (ESF)² criteria. These criteria specify planning, response, recovery, and mitigation in relation to chemical, biological, radiological, nuclear and explosive (CBRNE) threats.

² On June 1, 2004, the author was assigned to spearhead the effort to develop the City of Richmond’s Emergency operations Plan including the 15 ESFs. At the time, the author was also appointed to regional team to modify the region’s All-Hazards Mitigation Plan per federal requirements.
At the local level, municipalities were doing what they could to execute the newly-imposed responsibilities. For small localities with limited funding, this meant existing law-enforcement officials taking on additional responsibilities. According to the U.S. Conference of Mayors 2003 survey of 145 cities, localities across the nation were spending approximately $70 million weekly in additional costs to comply with elevated threat alerts\(^3\). Local efforts included additional security at transport hubs, increased water supply protection, protection of vulnerable infrastructures such as natural gas mains, and similar actions. At the time, no federal cost-compensation measures were in place.

**Statement of the Problem**

The swiftness of local responses to the shift in federal homeland security operations runs counter to two principles of the public administration (PA) theory: first, that such responses require a well-defined, formal organizational management approach; and second, that it can take years if not decades to execute such a shift, particularly in a vast system of 85,000 municipal entities (of which more than 600 have a population of 50,000 or greater), 3,041 counties and 50 states. Organizational management scholarship has consistently advocated a well-planned process to initiate organizational and/or mission change (Fernandez and Rainey, 2006; Burke, 2002; Thompson and Fulla 2001).

\(^3\) The term “compliance” as used here is not intended to suggest the existence of mandatory requirements, as there were none, but compliance with a list of federal recommendations.
From a practitioner’s point of view as well, abrupt transition from one type of organizational pattern to another without a well-planned organizational management system is considered counter to the conventional management practices. No studies have been found, however, addressing the post-11 federal homeland security strategy’s acceptance or rejection by the state and/or local governments.

**Purpose of the Study**

This study is intended to fill a gap in existing scholarship by examining the degree of acceptance at the local level of the following five new FHS priorities: (1) homeland security as the primary mission for local emergency management; (2) increased level of HS-related planning and preparedness; (3) increased inter-governmental cooperation; (4) increased citizen participation; and, (5) increase in HS-related spending.

The second purpose of this study is to examine the role of population size in determining the extent to which FHS priorities were adopted at the local level in Virginia.

The study’s third purpose is to explore the probable theoretical explanation of the overall FHS priorities’ acceptance or lack thereof, by analyzing the two likely explanatory concepts: path dependence and bureaucratic management. It is hoped that operationalization of these explanatory models will facilitate the development of future surveys to allow for a greater understanding of local responses.

Finally, using a principal component of a research design, this study also seeks a comparative analysis to compare the findings of California and Virginia’s local
practitioners’ perceptions regarding the FHS priorities. Besides adding strength to this research study, the information will help add new information to the existing database.

This study’s overall findings will help decision-makers match public resources with the local needs. Its implications for organizational adoptions can be generalized for issues outside homeland security.

**Theoretical Framework**

Cataclysmic events often result in public policy innovation and change (Kingdon, 1984; Newmann, 2002). Organizational theories often describe organizational change as a “phased” process. Contemporary literature supports the notion that organizational change is, at its root, a matter of careful planning (Lewin, 1947; Abramson and Lawrence 2001; Kotter, 1995; Fernandez and Rainey, 2006). Successful implementation of mission change can take years if not decades.

The enormity of the post-9/11 homeland-security responsibility and the urgency of the threat did not afford the luxury of a methodically organized approach to planning. Therefore, it may be asked “what explains the acceptance of the federal priorities at local levels?” The question is investigated by exploring two likely theoretical concepts: path dependence and bureaucratic management. Evaluation of the path dependence concept is explored by analyzing whether the actions of the past helped guide the future undertakings in uncertain situations. Similarly, an analysis of bureaucratic principles is conducted to determine its role in localities’ acceptance of the post 9/11 FHS priorities.
Path Dependence

The contemporary literature primarily focuses on the institutional inertia of path dependence; however, this study’s supposition exclusively utilizes the “history matters” (Margolis, 1995) aspect of path dependence. This prediction of the path-dependent approach argues that processes are self-referential, meaning that previous experiences have an impact upon those that follow; therefore, “bygones are rarely bygones” (Teece et al., 1997; Sydow, Schreyögg, and Koch, 2005). Path dependence, as a broader perspective that highlights the role of history in dealing with uncertain situations, helps guide agencies adapt to uncertain situations. In the context of homeland security, it explains how new situations are fitted into old procedures. For the purpose of this study, path dependence is operationalized by asking the following questions:

1. Does the federal government’s relationship to the local government in the post 9/11 planning resemble the pre-9/11 relationship?

2. Is the local role in emergency planning, as envisioned by the new FHS, similar and/or based upon the pre-9/11 role?

This study proposes that path-dependence helped with the local acceptance of federal HS priorities. The hypothesis is investigated by examining key elements and actions that define the path-dependent relationship between the federal and local governments. Findings confirm that the relationship between the three layers of government (federal, state and local) is based upon path-dependent actions; i.e., the new shape of homeland security looks a lot like the old emergency management structure.
**Bureaucratic Management**

Organizational structure and management techniques are critical in implementing a new or changed strategy because they help establish the framework by which job tasks are divided, grouped, and coordinated (Allen, 1998). The prediction of a bureaucratic system primarily involves firm rules, policies and procedures, rigid hierarchy, clear division of labor, and impersonality. Bureaucratic management helps provide unity of purpose, clear lines of authority, wealth of capabilities, economies of scale, a common institutional culture, and practices that built trust and confidence, and facilitate coordinated action (Carafano, 2002).

As with path dependence, the following two questions help understand the role of bureaucratic management regarding local acceptance or rejection of the FHS priorities:

1. Whether the post-9/11 intergovernmental bureaucratic relationship among the layers of government resemble the pre-9/11 relationship;
2. Whether the federal government used legislative and budgetary tools to compel localities to follow the federal lead?

This study hypothesizes that the federal government’s continued adherence to bureaucratic management concepts has facilitated the FHS priorities’ acceptance at the local level. The hypothesis is tested by examining several key elements of bureaucratic management: top-down executive control, bureaucratic coordination, influence over localities through flow of funding, and legislative/regulatory control. Several programs,
such as, the National Response Plan (NRP), National Incident Management System (NIMS), and FEMA, are evaluated to determine pre-and post-9/11 conditions.

**Research Methodology**

This descriptive, non-experimental study’s research methodology incorporates a cross-sectional design that includes this study’s research instrument, a survey of the local practitioners’ perceptions regarding the FHS priorities. The questionnaire replicates one used in California in 2002. Formal written permission was obtained from California Public Policy Institute’s officials for the use of the instrument. The objective of the survey was to accurately gauge the perceptions of local officials using 22 questions for the purpose of determining whether the FHS strategy was accepted, and to examine whether the federal priorities conveyed the same urgency for all Virginia localities irrespective of population size. The survey’s questions were grouped along the five priorities of post 9/11 federal homeland security: (1) homeland security as the primary mission for local emergency management; (2) increased level of HS-related planning and preparedness; (3) increased intergovernmental cooperation; (4) increased citizen participation; and (5) increase in HS-related spending.
Priority 1 – Homeland Security as the Primary Mission for Local Emergency Management:

Prior to the terrorist attacks, states and localities used to prepare for routine emergencies, such as fire, floods and hurricanes. The post-9/11 priorities now consider threats relating to weapons of mass destruction (WMD, i.e., CBRNE) a top priority. Survey Questions 1 and 2 provide an evaluation of localities’ sense of where terrorism ranks as a priority relative to other local concerns such as crime and the economy.

Priority 2 – Increased Level of HS-related Planning and Preparedness:

The post-9/11 priority focuses on the ability of local and state governments to respond to terrorism incidents by taking appropriate planning and preparedness measures against terrorist threats along with documentation in the local emergency operation plans. In keeping with the requirements of bureaucratic management, one of the post-9/11 eligibility criteria for federal assistance is localities’ documentation of planning and preparedness measures against WMD (CBRNE) threats. This also includes localities’ preparedness response to national color-coded threat alerts. Localities must also

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4 In her statement on October 5, 2001 during the Committee on Reform hearings, Janet Heinrich of the U.S. General Accounting Office stated to Congress, “[w]e found emerging concerns about the preparedness of state and local jurisdictions, including insufficient state and local planning for response to terrorist events ....”U.S. General Accounting Office, U.S. Congress, House, Committee on Government Reform, Hearings, Washington, D.C., 2001.

5 At the time of the survey, the national threat alert system was placing significant stress on localities. There were no published criteria for the threat levels and no independent way to determine whether a prevailing threat level was accurate. However, since each elevated alert code resulted in additional $75 million per week nationally (NLC Survey, 2002), the usefulness of the scale was a matter of intense debate.
implement specific modifications, including increased security at the transportation hubs and protection of local water supply and high-occupancy buildings, etc., in the local Emergency Response Plans.

This priority is addressed by analyzing Survey Questions 3, 4 and 5. The questions deal with the integration of the national homeland security threat alert advisory system, and local planning efforts and vulnerability assessment of local facilities and infrastructure.

**Priority 3 – Increased Intergovernmental Cooperation:**

This priority measures inter- and intra-governmental collaboration and cooperation at all levels of government. The FHS priorities necessitate increased intergovernmental cooperation. Owing to limited availability of resources for planning, preparedness, response and mitigation, one of the post-9/11 federal priorities is to foster greater intergovernmental cooperation. Survey Questions 10 and 11 are designed to determine whether localities also see it as a priority and have tried to increase intergovernmental cooperation accordingly.

**Priority 4 – Increased Citizen Participation:**

Reminiscent of Cold War’s civil defense programs, citizen participation is a critical indicator of the new strategy’s success and serves as an indicator of its acceptance. This set of Survey Questions (12, 13 and 14) is intended to determine whether localities have been trying to increase citizen participation as dictated by FHS priorities. The questions address citizen attitudes, awareness, support and participation in
the new strategy’s mission. They measure the level to which localities have been attempting to include citizens in local homeland security planning.

**Priority 5 – Increase in HS-related Spending:**

A challenge for state and local government alike, fiscal preparedness is a critical issue, one that also generates a passionate response. Although public safety is traditionally a state and local responsibility, new homeland security requirements place stress upon state and local resources, interfering with their ability to provide basic services. This set of questions includes Survey Questions 17 and 18 and measures localities’ desire to spend money on the new homeland security priorities.

**Research Questions**

This study explores the following research questions and corresponding hypotheses:

**Research Question 1**: Have the priorities of the new federal homeland security strategy been accepted as local priorities?

**Overall Hypothesis**: The new federal homeland security priorities have been accepted as local the priorities.

**Overall Operationalization**:

- Independent Variable = Creation of new FHS priorities for all EM agencies at all levels of government.
- Dependent Variable = Post 9/11 priorities of local EM officials
Research Question 2: Is population a factor in determining whether or not the federal HS priorities were accepted?

Overall Hypothesis: Larger localities (those having a greater than 50,000 population) consider FHS as their priority to a greater degree.

Overall Operationalization:

Independent Variable = Population Size

Dependent Variable = Post 9/11 priorities of local EM officials

For accurate operationalization of each of the five FHS priorities, five separate hypotheses with relevant independent and dependent variables are tested, as follows:

Priority 1- HS as the Top Priority for Local Emergency Management

Ha 1: Localities consider HS as their top priority above other local issues.

Independent Variable = Federal government identification of HS threats from terrorist attack as the top priority for state and local EM officials.

Dependent Variable = Post 9/11 Priorities of Local Officials

Priority 2 –Increased Level of HS-related Planning and Preparedness

Ha 1: Localities have increased their HS-related planning and preparedness efforts.

Independent Variable = Federal Expectation of Increased FHS Planning and Preparedness at Local Levels

Dependent Variable = Level of Local FHS Planning and Preparedness Efforts
Priority 3 – Increased Intergovernmental Cooperation

Ha 1: Localities have increased or plan to increase their intergovernmental cooperation efforts with other governments in planning for HS.

Independent Variable = Federal Expectation of Increased FHS-related Intergovernmental Coordination at Local Levels

Dependent Variable = Level of Intergovernmental Efforts in HS Planning

Priority 4 – Increased Citizen Participation

Ha 1: Localities have or plan to increase citizen participation toward local safety and security.

Independent Variable = Federal Expectation of Increased Citizen Participation toward FHS-related safety and security

Dependent Variable = Level of Local Citizen Participation in HS-related Safety and Security

Priority 5 – Increase in HS-related Spending

Ha 1: Localities have increased spending on homeland security.

Independent Variable = Expectation of Increased FHS-related Spending

Dependent Variables = Level of Local HS spending

Research Question 2: Is population a factor whether or not the federal HS priorities were accepted?

Small Population = up to 50,000 and Large Population = above 50,000.
Again, five separate hypotheses have been tested for each of the five FHS priorities with corresponding dependent variables, as follows:

**Priority 1 – HS as the Top Priority for Local Emergency Management**

**Ha 1:** Larger localities consider HS as their priority to a greater degree.

- Independent Variable = Population Size
- Dependent Variable = Post 9/11 Priorities of Local Officials

**Priority 2 – Increased Level of HS-related Planning and Preparedness**

**Ha 1:** Larger localities have increased their HS-related planning and preparedness efforts

- Independent Variable = Population Size
- Dependent Variable = Level of Local HS Planning and Preparedness Efforts

**Priority 3 – Increased Intergovernmental Cooperation**

**Ha 1:** Larger localities have or plan to increase their intergovernmental cooperation efforts with other governments in planning for HS.

- Independent Variable = Population Size
- Dependent Variable = Level of Intergovernmental Efforts toward HS Planning

**Priority 4 – Increased Citizen Participation**

**Ha 1:** Larger localities have a higher degree of citizen participation toward local HS planning.

- Independent Variable = Population Size
- Dependent Variable = Level of Local Citizen Participation toward HS-related Safety and Security
Priority 5 – Increase in HS-related Spending

Ha 1: Larger localities are spending greater amount of money on homeland security.

Independent Variable = Population Size

Dependent Variable = Level of Local HS spending

**Importance of the Study**

This study’s findings are important for several reasons. The survey’s findings will help expand the database of knowledge on homeland security implementation within the state of Virginia. More important, the officials’ perceptions of local priorities will help decision-makers match Virginia’s resources with needs. Findings explaining localities’ acceptance and adaptation of FHS priorities at the local level can also be generalized for other disciplines outside of homeland security.

**Definition of Terms**

The following definitions (provided in alphabetical order) have been used.

- Cities – Virginia’s 40 cities that employ an emergency management coordinator (Appendix C).
- Counties – All of Virginia’s 95 counties (Appendix C).
- Federal assistance – Federal funding and/or assistance in local threat prevention and attention; emergency equipment and apparel; protection of infrastructure; training for local emergency response personnel; technical assistance for local
preparedness planning; personnel support (additional personnel) and overtime; and coordination of region-wide efforts.


- Homeland Security Paradigm: For the purpose of this study, this term is used to define the overall post-9/11 homeland security strategy.

- Intergovernmental coordination: any combination of coordination, collaboration and/or cooperation among the local, state and federal governments.

- Intra-governmental coordination: any combination of coordination, collaboration and/or cooperation among the agencies of a particular entity of government such as, local, state and federal.

- Key FHS priorities: Priorities that frame the overall post-9/11 federal strategy. Survey questions are analyzed under these five categories: (1) homeland security as the primary mission for local emergency management; (2) increased level of HS-related planning and preparedness; (3) increased intergovernmental cooperation; (4) increased citizen participation; and (5) increased HS-related spending.
• **Local issues:** Include traditional crime, job layoffs and unemployment, business shutdown and decline, natural disasters, acts of discrimination and hate crimes, and loss of public confidence.

• **Local officials/practitioners:** Local emergency management coordinators. This group of officials is responsible for the planning, preparation, response, recovery and mitigation of all manmade or natural disasters within their jurisdiction. Currently, 141 Virginia localities employ an emergency management coordinator.

• **Local priorities:** Include investing in terror prevention, preparation and training; investing in general public safety and crime prevention; improving economic conditions; increasing the availability of affordable housing; revitalizing and developing neighborhoods; supporting local and regional development strategies; infrastructure (road/transit/water/sewer); investing in public education and other support for children, youth and families; protecting natural resources and local environmental quality; costs and availability of health services; local relations with the community; and relationships with state and federal governments.

• **Population size** – Virginia localities’ classification by two population categories: up to 50,000 and over 50,000.

• **Terrorism and security:** Include terrorist threats of a car or truck bomb; threats of biological hazards, chemical, nuclear, radiological hazards, combination/dirty bomb; cyber-terrorism; individual suicide attack; and an airplane’s use as a bomb.
• Towns – Six of the 184 Virginia towns having a local emergency coordinator position (see Appendix C).

Limitations

As one-point-in-time survey, this study has a limited overall focus of evaluating the top-down acceptance of FHS strategy, which is an evolving phenomenon still. Limitations inherent in a survey include the subjectivity of individual responder’s perspectives. A pilot test was done to minimize the effects of this limitation. This study was limited to Virginia’s 141 local emergency coordinators, which, as a new job-class, has been in existence since July 2003 only. Consequently, there may be an inherent bias because these officials may have been influenced by the charged rhetoric of the post-9/11 environment. The 60% (84 out of 141 responders) participation rate also constitutes a less than desired rate. Also, two localities withheld response to a few questions citing breach of local security as the reason.

Organization of the Study

The descriptive, cross-sectional research study has three primary objectives: (1) to analyze extent of the post-9/11 FHS strategy’s acceptance among the local public emergency management practitioners (practitioners); (2) to explore concepts that may explain the localities’ acceptance of the FHS priorities; and, (3) to compare California and Virginia officials’ perceptions regarding FHS priorities over a two-year duration.
The dissertation is organized into five chapters. Chapter 1 discusses the research problem and its importance. Chapter 2 reviews the relevant literature. Chapter 3 describes the research methodology including the study’s design, instrumentation, data collection and analysis procedures, methodological assumptions and limitations. Chapter 4 analyzes and presents the data using charts, tables, and graphs. Chapter 5 provides a summary of the data results and findings. It also establishes the public policy context of theoretical assumptions with the post-9/11 federal actions. It includes a comparison of the findings of California and Virginia surveys. As a policy summary and conclusion, it also discusses the potential for additional research in the field.

Summary

This chapter began with a discussion of the background then presented the problem statement, the purpose of the study, a theoretical framework, the research questions, the methodology and its limitations, a definition of terms, and the importance of the study. A descriptive, cross-sectional study, this dissertation examines whether FHS’ post-9/11 strategy was, indeed, accepted among local practitioners. A survey of Virginia practitioners is used in examining whether FHS strategy was accepted, and whether it carried the same urgency for localities irrespective of population size. This study also asks what explains the local governments’ acceptance of the federal homeland security priorities. The question is explored through an evaluation of two concepts: path dependence and bureaucratic management. Because of the replication of California’s survey, a comparison between Virginia and California findings is also provided.
CHAPTER TWO
REVIEW OF LITERATURE

Overview
The traditional PA theory and practice advocate adoption of an organizational management system for the successful implementation and acceptance of a shift in organizational strategy. The purpose of this descriptive, cross-sectional research is two-fold: to analyze and seek the evidence for the post-9/11 FHS strategy’s acceptance among the state and local public emergency management practitioners (practitioners); and to explore the two likely theoretical concepts—path dependence and bureaucratic management in explaining the acceptance or rejection of federal priorities at the local level. The chapter will discuss organizational change in general, then path dependence and bureaucratic management as theories of organizational change or organization adaptation.

The evidence for FHS strategy’s acceptance among the local practitioners is explored using a two-part inquiry: (1) Have the priorities of the new federal homeland security strategy been incorporated into the priorities of the local emergency managers? (2) Is population-size a factor toward the acceptance of federal priorities? Two corresponding hypotheses are tested: (a) the localities accepted federal priorities; and, (b) localities having larger populations accepted priorities to a greater degree.
A review of the organizational change literature shows that researchers place different emphasis on the content of change, the process through which change occurs, and the outcomes or consequences of change (Armenakis and Bedeian 1999). The literature also contains numerous and sometimes conflicting propositions about the relationship between the likelihood of change and organizational variables such as the level of formalization, leadership tenure, environmental buffering, and organizational size and age. Despite differences in the conditions for success and their prescribed framework, the common theme is the emphasis for planned change (Armenakis and Bedian 1999).

Lewin (1947) and Schein's (1987) describe organizational change as a “phased” or “staged” process. Their assertion of implementing organizational change through a “stage” process along with factors contributing to success is supported by a host of contemporary researchers (e.g., Armenakis, Harris, and Feild 2001; Bingham and Wise 1996; Burke 2002; Greiner 1967; Judson 1991; Kotter 1995; Meyers and Dillon 1999; Rainey and Rainey 1986; Thompson and Fulla 2001). A number of empirical studies have also supported many of the propositions from these models and frameworks, which suggests a pattern of consensus about what accounts for successful implementation of planned change.

Lewin calls his first stage “unfreezing,” which involves overcoming apathy and dismantling of the existing “mind-set.” This stage also requires deconstruction of resistance. The second stage involves change, typically characterized by a period of
confusion. The third and final stage is called “refreezing,” where mind-set is crystallizing and one's comfort level begins to return back to previous levels. For successful management of this three stage change process, which can take years if not decades to complete, public administration theorists and practitioners over the past century have suggested numerous theories of organizational management.

Arguing that purposeful management matters little in organizational change, Fernandez and Sergio (2006) suggest eight factors and propositions to ensure the desired outcome of an organizational change: (1) Ensure the need (2) Provide a plan (3) Build internal support for change (4) Ensure top-management’s support and commitment (5) Build external support (6) Provide resources (7) Institutionalize change (8) Pursue comprehensive change. In contrast to Lewin’s “stage” model, Fernandez and Sergio (2006) emphasize that each of these determinants can be a potentially contributing factor to the successful implementation of change or by adding to the effects of other factors.

The key point of both models--Lewin’s “stage process” and Fernandez and Sergio’s eight-point concept--is that they prescribe change as a preplanned activity in a relatively stable environment over a substantial duration. In contrast, the post-9/11 federal homeland-security strategy was a result of an imposed circumstance in a turbulent, unstable environment which did not allow any time for a routine execution let alone a planned, staged process. Yet, judging from a first-glance view of the swift federal actions and state and local response, it appears to have been readily accepted by the lower
levels of the government. The explanation of this acceptance is attempted through exploration of two likely explanatory concepts: path dependence and bureaucratic management.

**Theory of Path Dependence**

The prediction of path dependence theory is that when faced with uncertainty, organizations and/or managers adhere to past actions for future direction. An offshoot of chaos theory, path dependence explains that decisions that have been taken in the past may increasingly be crucial to the future course of action (Katz and Shapiro 1986; Farrell and Saloner, 1986; Arthur, 1994; Sydow, Schreyögg and Koch, 2005).

The central argument of path dependence is based on the approach that social processes are self-referential, meaning that former decisions have an impact upon those that follow; therefore, “bygones are rarely bygones” (Teece et al., 1997). Path dependence is a condition when the outcome of a process depends on its past history or the entire sequence of decisions made by agents and resulting outcomes to handle contemporary conditions and challenges. The classical model of path dependency is based upon rational choice.

Grounded in economic concept of increasing returns, path dependence implies positive feedback. The institutional approach on which path dependency is based (March and Olsen, 1989; Steinmo et al., 1992; Hall and Taylor, 1996), stresses the importance of rules and routines, and their significance in organizations. On a micro-level, these characteristics point to practices or operational procedures in organizations, such as the
concept of “muddling through” (Lindblom 1965) and Weber’s (1947) theory of bureaucracy (discussed separately). Others (e.g., Sydow, Schreyögg and Koch, 2005; Whitley et al. 1996; Margolis and Liebowitz, 1996; Lewin and Volberda 1999, 2003; Carney and Gedajlovic 2002; Marquis 2003; Roe, 1996; Arthur, 1996) have addressed institutional and evolutionary accounts of organizational change from economic well-being to organizational competence.

A significant volume of path dependence literature also centers on inertia, which suggests that initially decisions are open to revision, but from a certain point in time onwards, decisions taken based on past actions increasingly restrain present and future choices, which leads inertia or apathy. Initially, a path dependent process initiates with conditional event(s) that begin a new course for the organization. Once the new path has been created, positive and negative feedback mechanisms reinforce the path (Greener, 2002). The “critical juncture” theory leads to inertia, while the “reactive sequences” theory describes a temporally-linked and causally-tight chain of events, similar to cybernetics. In the context of the FHS phenomenon, both aspects suggest interesting links that may be addressed in separate studies. The failures of Katrina may be indicative of the self-referential inertia. On the other hand, as still evolving phenomenon, the FHS appears to be more identifiable with the “reactive sequences” theory.

For the purpose of this study, path dependence is discussed along a simple explanation, “path dependency means that history matters. We cannot understand today’s choices without tracing their evolution through time (North, 1990);” therefore,
"history matters" (Liebowitz and Margolis, 1995). This view advocates that preceding events set the direction for future actions and when faced with an uncertain environment, managers and/or organizations adopt a path-dependent course; i.e., they use policies, procedures, and institutional relationships already in place because doing so offers a sense of stability. For example, in the immediate aftermath of the terrorist attacks, the absence of federal and/or state guidelines did not deter the Central Virginia officials from forming a regional disaster preparedness committee to discuss the pooling of efforts and resources for a unified and cooperative response if needed. The undertaking was based on policies and procedures already in place. Historically, during emergencies, states and local jurisdictions had shared services, personnel, supplies, and equipment with other counties, towns, and municipalities within the state, with neighboring as well as distant states before.

Theories that point to practices of operational procedures in organizations, such as the behavioral theory (Cyert and March, 1963) or the concept of “muddling through” (Lindblom 1965), are also related to the idea of path dependency. These behavioral theories are sensitive towards the fact that history, as imprinted in existing routines and procedures, matters a lot in organizational behavior. Cohen and Levinthal (1990) call this concept “absorptive capacity” (Nooteboom 1997, Lubatkin et al. 2001), which highlights the fact that the ability of an organization to learn is to a significant extent a function of what is already known, i.e., “the shadow of the past” (Larsson et al. 1998).
within organizations. The enactment of the National Security Act of 2002 (reminiscent of the National Security Act of 1947), the reorganization of the DHS (as was done in 1945 during the first major reorganization by President Truman), the declaration of the war on terror (much like the Cold War at the end of World War II), are but a few examples that affirm the path-dependent actions which helped with the swift implementation and acceptance of the FHS strategy at all levels of the government.

To determine whether local acceptance of federal actions relied on precedence, operationalization of the path dependence assumption is explored through the following two questions:

(1) Does the federal government’s post-9/11 planning relationship to local governments resemble the pre-9/11 relationship?

(2) Is the local role in emergency planning, as envisioned by the new FHS, similar and/or based upon the pre-9/11 role?

This study proposes that the post-9/11 FHS strategy, non-withstanding the perceived notion of being a “new” concept, is a refashioning of the federal-local relationship. This hypothesis is tested by examining several key actions that describe federal and local relationships. Some of such examples include the Homeland Presidential Directive 5, a revamping of the existing Federal Response Plan (FRP) of the 1980’s, which had proven effective for coordinating local response and efforts during and after several national emergencies including the 9/11 attacks; FEMA’s continued role as a
primary liaison between the three layers of governments; and revamping of the National Response Plan (NRP), whose basic premise is that incidents are to be handled at the local level as much as possible (Sylves, 2006).

**Theory of Bureaucratic Management**

The second theoretical assumption of this study is that bureaucratic management helps explain the acceptance of FHS strategy at the local and state governments. The post-9/11 FHS system has been federally designed. The expectation of the federal government has been that it will continue to be federally-defined and the federal government will use its legislative and budgetary power to keep it that way. Sylves (2006) sums up the post-9/11 bureaucratic relationship between the federal and lower layers of governments by describing it as “a colossal, inter-governmental, multi-agency, multi-mission enterprise fueled by widely distributed, but often highly conditional, federal program grants to state and local governments."

By design, a bureaucratic establishment provides a formal decision-making framework by which job tasks are divided, grouped, and coordinated (Allen, 1998). The purpose of bureaucracy is to make the best use of an organization's resources in achieving organizational goals. Rooted in the classic Weberian theory, the concept of bureaucratic management identifies a rational set of structuring guidelines, such as rules, policies, procedures, and hierarchy, and incorporates the following basic principles:

1. Official business is conducted on a continuous basis;
2. Official business is conducted with strict accordance to the following rules, as follows:
   a. The duty of each official to do certain types of work is delimited in terms of impersonal criteria.
   b. The official is given the authority necessary to carry out his assigned functions.
   c. The means of coercion at his disposal are strictly limited and conditions of their use strictly defined.

3. Every official's responsibilities and authority are part of a vertical hierarchy of authority, with respective rights of supervision and appeal.

4. Officials do not own the resources necessary for the performance of their assigned functions but are accountable for their use of these resources.

5. Official and private business and income are strictly separated.

6. Offices cannot be appropriated, inherited, or sold by their incumbents and official business is conducted on the basis of written documents.

In discussing the U.S. federal bureaucratic model, Wilson (2000) articulates the logic of a bureaucratic system as, “what the government agencies do and why they do that in the way they do.” Suggesting “organization matters,” Wilson offers five critical elements of bureaucracy that make it a feasible approach above other options:

1. It allows an organization to establish objectives that matter.
2. A bureaucratic culture is shaped by the criticality of the situation encountered on a daily basis.

3. A bureaucratic environment helps deal with the issues and constraints peculiar to managers of public agencies.

4. Bureaucracy facilitates competition among the executives that can be competition and/or cooperation.

5. It sets up the context in which public agencies do their business with the three branches of the government.

Wilson (2000) classifies governmental bureaucracy into four groups: production organizations, procedural organizations, craft organizations, and coping organizations. This distinction is chiefly based upon the visibility and measurability of the organizations’ outputs and procedures. Based on Wilson’s logic, the “production organization” is defined as having both measurable processes and visible/understandable outputs, such as, the Social Security Administration. “Procedural organizations” perform measurable processes, but they have no visible or easily measurable outputs. The “craft organization” is characterized by having immeasurable processes and visible outputs, such as, the army. However, the “coping organization” has neither measurable/controllable processes nor visible outputs, such as, the Police Department, the Department of Education. By Wilson’s delineation, DHS is also identified as the “coping” organization.
As an innovative strategy, beginning with the 1980s’, the federal system has experimented with a new strategy called the Federal Decentralization Model. The purpose of this concept was to decrease complexity of multilayer organizations. In federal decentralization model, an agency is organized to allow a number of independent units to operate their autonomous business simultaneously (Norman, 1994). For example, in the implementation of the Clean Air Act, the federal government set the standards and states and local governments had to submit plans for implementing the standards. In private sector, this structure has resulted in large multi-national conglomerates which have diversified into many different fields in order to minimize risk. DHS represents this form of bureaucracy.

Both Wilson (2000) and Walonick (1993) point out that relationships between the environment (“situation”) and an organizational structure are extremely important. This set-up also grants the requisite formal authority to impose a decision and to monitor agencies’ compliance with it. Using the context of the post-9/11 homeland security, DeCorla-Souza’s (2002) model provides a parallel for the state, local and federal relationships:

1. **Control through a single head of authority**: The notion of control entails the concept of power (Meier and O’Toole, 2006). Whether political, organizational and administrative, control serves as the basis for arbitration of jurisdictional battles and policy disputes among competing interests and
agencies. At the federal level, the presidential power authorizes him for control.

2. Communication and Intergovernmental Coordination: This element suggests removal of intergovernmental barriers for exchange of information through implementation of a consistent policy to ease communication.

3. Provision of budgetary authority to lead the agency: In a bureaucratic setting, budgetary allocations can be used as an incentive to implement any concept including change. Funding can also be used as reward/punishment and persuasion/compliance element to induce acceptance. Since the announcement of the FHS strategy, emergency–management appropriations, especially at the local and state levels, have gained a healthy respect as a line-item entry rather than a footnote to the local budget plans.

4. Establishment of a clear leader who would make it easier to assign accountability: As the heading suggests, a bureaucratic system requires a clear leader of the organization to make decisions as well as accept responsibility for his/her actions. For the federal system, the choice is clearly the President. Similarly, at the state level the governor, and the local levels, the head of the jurisdiction it can be an administrator or a manager. In a democratic public system, there are always a set of appropriate protocols to ensure checks and balances to prevent abuse of authority.
5. Placement of agencies with common goals under the same authority: The purpose of incorporation is to make the most use of local resources, to avoid duplication of services and increase management control.

In conclusion, two underlying principles suggest why bureaucratic management would have helped acceptance of federally-defined priorities at the state and local levels. First, in U.S., all layers of governments are rooted in and conditioned to bureaucratic thinking for over a century; and second, the foundations of a bureaucratic system are ground in hierarchy, command, control, standardized procedures, formal division of responsibility, and impersonal relationships. Continuation of these intergovernmental relationships and expectations among the federal, state and local governments sets the stage for the ready acceptance of the federally-defined strategy and/or system. This is not to say that bureaucracy offers an ideal solution. A bureaucratic system is not free of problems and an ‘ideal type’ of organizational does not exist.

Summary

The purpose of this chapter was to draw upon the contemporary literature for a review of the traditional concepts of organizational change in the public sector. Two likely theoretical assumptions: path dependence and bureaucratic management were reviewed to help understand their role in explaining the local governments’ acceptance of the federal homeland security-related priorities.
CHAPTER THREE
METHODOLOGY

Overview
This chapter provides an explanation of the research methodology and approach to answer two research questions: (1) Have the priorities of the new federal homeland security strategy been accepted as the local priorities? (2) Is population a factor whether or not the federal HS priorities were accepted?

The chapter incorporates a description of the methodology, research design, research instrument, selection of subjects, instrumentation, procedures, data collection and recording, data processing and analysis, limitations and summary.

Research Methodology and Approach
The methodology for this descriptive study involves a cross-sectional design to address and evaluate the evidence for this study’s research questions based on a questionnaire survey. The advantage of a cross-sectional design is that it allows real-life setting using a sample, which helps increase the external validity (Nachmias and Nachmias, 2000). Another principal component and strength of this research is a comparative analysis, which has been achieved by comparing California practitioners’ perceptions with those of Virginia’s. The research instrument, a replication of California’s 2002 survey, includes 22 questions designed to evaluate the local
practitioners’ perceptions regarding post-9/11 risks and threats; vulnerability assessments, preparedness and planning; citizens’ awareness and participation; intergovernmental coordination and cooperation; and local priorities for federal and state funding and assistance. To maintain generalizability, no changes were made to the survey instrument and the original authors’ written permission was acquired prior to its use in Virginia.

Research Design

Research Questions and Hypotheses

Operationalization is achieved by establishing corresponding suppositions for each of the research question, as follows:

Research Question 1: Have the priorities of the new federal homeland security strategy been accepted as local priorities?

Overall Hypothesis: The new national FHS priorities for all emergency management organizations at all levels of the government have reshaped the local priorities.

Overall Operationalization:

Independent Variable = Creation of new FHS priorities for all EM agencies at all levels of government.

Dependent Variable = Perceived Priorities of local EM officials

6 The National League of Cities engaged two officials: Christopher Hoene, Ph.D., and Mr. Mark Baldassare, both from the Public Policy Institute of California, to conduct the California survey.
To ensure accuracy, each of the five FHS priorities is operationalized individually, as follows:

**Research Question 1**

**Priority 1: Homeland Security as the Primary Mission for Local Emergency Management**

**Ha 1:** Localities consider HS as their top priority above other local issues.

**Independent Variable =** Federal government identification of HS threats from terrorist attack as the top priority for state and local EM officials.

**Dependent Variable =** Post 9/11 Priorities of Local Officials

**Priority 2: Increased Level of HS-related Planning and Preparedness**

**Ha 1:** Localities have increased their HS-related planning and preparedness efforts.

**Independent Variable =** Federal Expectation of Increased FHS Planning and Preparedness at Local Levels

**Dependent Variable =** Level of Local FHS Planning and Preparedness Efforts

**Priority 3: Increased Intergovernmental Cooperation**

**Ha 1:** Localities have or plan to increase their intergovernmental cooperation efforts with other governments in planning for HS.

**Independent Variable =** Federal Expectation of Increased FHS-related Intergovernmental Coordination at Local Levels

**Dependent Variable =** Level of Intergovernmental Efforts toward HS Planning
Priority 4: Increased Citizen Participation

Ha 1: Localities have or plan to increase citizen participation toward local safety and security.

Independent Variable = Federal Expectation of Increased Citizen Participation toward FHS-related safety and security

Dependent Variable = Level of Local Citizen Participation toward HS-related Safety and Security

Priority 5 – Increase in HS-related Spending

Ha 1: Localities have increased spending on homeland security.

Independent Variable = Federal Expectation of Increased FHS-related Spending
Dependent Variables = Level of Local HS spending

Research Question 2: Is population a factor whether or not the federal HS priorities were accepted?

Note: Small Population = up to 50,000 and Large Population = above 50,000.

As with Research Question 1, five separate hypotheses have been tested for each of the five FHS priorities and corresponding dependent variables, as follows:

Priority 1: Homeland Security as the Primary Mission for Local Emergency Management

Ha 1: Larger localities consider HS as their priority to a greater degree.

Independent Variable = Population Size
Dependent Variable = Post 9/11 Priorities of Local Officials
Priority 2: Increased Level of HS-related Planning and Preparedness

Ha 1: Larger localities have increased their HS-related planning and preparedness efforts

Independent Variable = Population Size
Dependent Variable = Level of Local HS Planning and Preparedness Efforts

Priority 3: Increased Intergovernmental Cooperation

Ha 1: Larger localities have or plan to increase their intergovernmental cooperation efforts with other governments in planning for HS.

Independent Variable = Population Size
Dependent Variable = Level of Intergovernmental Efforts toward HS Planning

Priority 4: Increased Citizen Participation

Ha 1: Larger localities have a higher degree of citizen participation toward local HS planning.

Independent Variable = Population Size
Dependent Variable = Level of Local Citizen Participation toward HS-related Safety and Security

Priority 5: Increase in HS-related Spending

Ha 1: Larger localities are spending greater amount of money on homeland security.

Independent Variable = Population Size
Dependent Variable = Level of Local HS spending
**Sample**

The survey was administered to the entire target population, which represents all of Virginia’s 141 local emergency coordinators from 95 counties, 40 cities and 6 towns. The Virginia Department of Emergency Management’s 2004 directory was used in acquiring the addresses of all 141 local emergency coordinators. A population sample is considered helpful in assuring high internal validity and credibility.

**Population**

This study’s population involves an exclusive target group—the post-9/11 HS first-responders of Virginia—who as local emergency coordinators, came into existence on July 1, 2003. In response to the post-9/11 federal homeland security strategy, on March 22, 2003, the Virginia legislature amended the Commonwealth of Virginia Emergency Services and Disaster Law of 2000. Under §44.146.19, the Virginia legislature created a new job class called “emergency coordinator.” As of July 2004, the Virginia Department of Emergency Management (VDEM) Directory enlisted 141 local emergency coordinators across the state. These officials, who represent Virginia’s six

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7 The Code of Virginia §44.146.19 includes the following language to address the appointment at each political subdivision (city, county and town): “1. In the case of a city, the mayor or city manager, who shall have the authority to appoint a coordinator of emergency management with consent of council. 2. In the case of a county, a member of the board of supervisors selected by the board or the chief administrative officer for the county, who shall have the authority to appoint a coordinator of emergency management with the consent of the governing body. 3. A coordinator of emergency management may be appointed by the council of any town to ensure integration of its organization into the county emergency management organization.”
towns, 40 cities and all of the 95 counties (see Appendix C), were chosen as target population because, as local decision-makers (‘practitioners’), they are directly responsible for executing local emergency-related planning, preparedness, response, recovery and mitigation. Also, fifty-five (55) of the 141 officials (or 39%) currently act and/or continue to act as a locality’s key law enforcement official, such as chief of police or fire.

Virginia was chosen for replication of California’s survey instrument for several reasons. Situated on the opposite coast to California, Virginia offers numerous similarities and contrasts. As one of the sites of terrorist attacks, Virginia continues to be vulnerable to future terrorist attacks because of its strategic location and prominence. Contiguous to the nation’s capital, it ranks 12th in population and supports much of the federal government’s operations, housing and employment. With 112 miles of coastline (3,315 miles of shoreline), Virginia accommodates the world’s largest naval military base. Over 50 percent of the nation’s Internet activity is routed through Virginia. It is home to fourteen strategic military installations, four nuclear power plants, major airport facilities, numerous universities, and a Federal Reserve regional branch.

**Instrumentation**

A 22-question survey instrument (Appendix B) was used in measuring the perceptions of Virginia’s 141 practitioners. Survey questions were categorized and analyzed along the five FHS priorities. Practitioners’ responses were analyzed to test
relevant hypotheses for both research questions. The five federal priorities and their instrumentation are as follows:

1. **FHS priorities as the Primary Mission for Local Emergency Management** – This category of federal priority focuses on local officials’ specific concerns regarding threats of terrorist attacks and how do those concerns compare with other local issues. Survey Questions 1 in (two parts: 1a and 1b) and 2 were analyzed to test the hypotheses.

2. **Increased Level of HS-related Planning and Preparedness** - This set of questions focuses on measuring the types of planning efforts addressed in the local emergency preparedness plans based on responses to Survey Question 3, 4 and 6.

3. **Increased Intergovernmental Collaboration**: This set of questions measures the level of local collaboration within the locality’s agencies; among the region, within the state and with the federal government. Survey Questions 10 and 11 were used in testing the corresponding hypotheses.

4. **FHS-related Citizen Participation and Support**: This set of questions measures localities’ efforts to get citizens involved in the HS-related awareness, involvement, participation, and support. Survey Questions 12, 13 and 14 were used in testing the corresponding hypotheses.

5. **FHS-related Fiscal Priorities**: As a measure of local acceptance of the federal HS priorities, this construct measures localities’ desire to spend more funds in carrying out the responsibilities imposed by the new HS strategy. Survey
Questions 17 and 18 were used in testing the corresponding hypotheses.

The two-part survey included a total of 22 questions and 150 variables. Part I of the survey was designed to collect general demographic data. Virginia Department of Emergency Management’s geographical delineation (Appendix D) was used in defining the jurisdictional status, i.e., urban or rural. The 2000 U.S. Census’ classification was used in defining jurisdictional category for city, counties and towns. Respondents were asked to provide their localities existing estimated population. The second part of the questionnaire was designed to collect officials’ perceptions.

**Procedures**

Although the Virginia survey was a replication of California questionnaire, the instrument was tested locally to determine the need for changes in the instrument to ensure clarity. The test responder was asked three questions:

1. Approximately what was the duration of time needed to fill out the survey?
2. Did the responder find the questions to be clear? If not, what changes were needed?
3. If the survey adequately addressed the assessment of the post-9/11 key federal priorities: (a) FHS as the primary mission for local emergency management; (b) FHS-related planning and preparedness; (c) FHS-related inter-governmental cooperation; (d) FHS-related citizen participation; (e) FHS-related fiscal priorities.
The test responder felt the survey adequately addressed the concerns in a straightforward manner and did not recommend any changes.

Prior to implementing the survey, in July 2004, Virginia Commonwealth University’s Institutional Review Board’s approval was sought to assure that no human subjects were utilized and the survey was conducted in compliance with all requirements. In September 2004, the Institutional Research and Evaluation branch’s approval was granted as IRB Number 4086. The questionnaire was administered in fall of 2004 as one-time survey.

**Data Collection and Recording**

The survey instrument was mailed directly to all 141 recipients using the official stationery of the Virginia Commonwealth University. The initial packet contained the following materials:

- **A cover letter** (Appendix A) – The intent of the cover letter was to explain the purpose of the survey along with a reference of the Advisor’s support indicating the need for the study and academic ramifications. The recipients were assured of the confidentiality of responses and informed of the participation on a voluntary basis. Additionally, they were also notified of the instrument being a replication of California’s survey of 2002.

- **A survey questionnaire** (Appendix B) – A copy of the survey instrument consisting of three two-sided pages and a control number was included. Recipients were asked if they wished to receive the results of the survey.
• **Postage paid envelope** – A postage-paid envelope was included with a return address of a VCU mailbox.

• **Assurance of participant confidentiality** – Each survey instrument was assigned a control number beginning with 1 through 141 according to the alphabetical order of the recipient’s locality.

• **Follow-up**: A reminder post-card was sent to all recipients at a week’s duration, followed by an e-mail reminder at a two-week interval. After a month, a personal call was made to localities that had not yet responded.

On a weekly basis, responses were collected from a VCU official until January 8, 2005. Responses were coded, logged and analyzed using Statistical Package for the Social Sciences (SPSS). This method ensured confidentiality of the respondents and eliminated the researcher bias typically associated with data collection.

**Data Processing and Analysis**

To analyze respondents’ perception for each of the five FHS priorities, Social Statistical Package System (SSPS) spreadsheet was used in coding the data. The following techniques summarize processing of data and analysis:

• A Likert-type scale was used in capturing the directionality and strength of respondents’ perceptions, for example: “Not Very,” “Mildly,” “Moderately,” and “Very” (applicable to Survey Questions 1, 9, 10, 11, 13, 14, 15, 17, 18, and 19).
• Responses for ordinal scale variables were converted to dichotomous-category variables (Nachmias and Nachmias, 2000). Example: Not very/mildly = low concern (b) moderately/very = high concern.

• Population was chosen as the primary risk criterion to test the assumption due to two reasons: 1. higher population concentration denotes higher degree of damage both in terms of lives and property, and, 2. population size is used as the primary risk factor by the U.S. Army and U.S. Department of Homeland Security.

• As a continuous variable, population size (up to 50,000 = small and >50,000 = large) was coded on ordinal scale to meet the objective of this hypothesis.

• Data was synthesized to determine proportional response for each relevant question. Appropriate tables and charts are developed, from which findings were reported for both research questions.

• Variables denoting jurisdictional category such as, city, county and towns; and jurisdictional status such as urban/rural/region, were not used because expected count was repeatedly found to be less than 5 in at least one cell of the contingency table.

• Variables for Questions 2, 4, 20 and 21 were measured on a nominal scale as follows: “applicable” and “not applicable.”

• Findings for presented using scatter plot, frequency tables and bar-graphs. Both raw frequencies and proportional data were developed; however, only proportional data was used in bar graphs.
Methodological Assumptions

The methodological assumptions are as follows:

<table>
<thead>
<tr>
<th>Methodological Assumptions</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection and/or relationship between the dependent and independent variables are as expected</td>
<td>The hypothesis is not rejected.</td>
</tr>
<tr>
<td>Connection and/or relationship between the dependent and independent variables are not as expected</td>
<td>The hypothesis is rejected</td>
</tr>
</tbody>
</table>

Limitations

Although this study’s survey was administered to the entire population (141 local practitioners), a total of 84 responses were received constituting a rather less than desirable rate-of-return at 60%. Limitations inherent of a survey questionnaire include the differing individual interpretations of questions by the respondents. A pilot test was done to minimize, although not entirely eliminate, the effects of these limitations. Also, because the opinion survey was administered to the newly-appointed local emergency coordinators, there may be an inherent bias because these officials may have been influenced by the charged rhetoric of the post-9/11 environment.

Summary

This study explores whether or not the post-9/11 federal homeland security strategy was accepted by local governments. A descriptive undertaking, this study uses a cross-sectional design and employs a survey to determine the perceptions of Virginia’s 141 local emergency coordinators. This chapter detailed the methodological parameters.
for the study’s two research questions: whether the strategy was accepted; and whether
the FHS priorities convey the same urgency for all localities, irrespective of population
size. This chapter also defines the analytical framework including hypotheses toward the
applicable quantitative evidence and/or explanations, as discussed in Chapter Four - Data
Analysis.
CHAPTER FOUR
DATA ANALYSIS

Introduction

The 9/11 terrorist attacks caused a major shift in federal homeland security priorities. In addition to emergency management of traditional threats such as fire and floods, localities were now expected to address federal homeland security-related priorities such as identification of terrorism threats; planning and preparedness; intergovernmental collaboration; citizen participation and other fiscal priorities.

The purpose of this descriptive, cross-sectional study is to determine: (1) Have the priorities of the new federal homeland security strategy been accepted as the local priorities? (2) Is population a factor whether or not the federal HS priorities were accepted?

The purpose of this chapter is to present data analysis and subsequent findings for the two research questions and corresponding hypotheses. Factual information is kept separate in tables and charts followed by interpretation, inference and evaluation where applicable.

This chapter’s information is presented as follows: Virginia respondents’ general demographics; presentation of findings using tables and graphs for research questions and hypotheses as applicable; and discussion of the findings for each question and hypothesis. A chapter summary is provided at the end.
General Demographics

Of the 141 population, a total of 84 participants responded to the survey constituting a 60% response rate. Of these, the majority (71%) of the respondent group is classified as “rural” for having a population of up to 50,000. Overall, 29% of the respondents are classified as urban, and population in this category ranges from 50,001 to over 420,000. Graph 1 displays the distribution of the respondent population. Tables 1-3 provide distribution of the overall participant group.

Table 1 – Respondent Localities’ Distribution by Size (in percent)

<table>
<thead>
<tr>
<th>Population Categories</th>
<th>Number of Respondents</th>
<th>Percent of Total Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 50,000</td>
<td>60</td>
<td>71</td>
</tr>
<tr>
<td>50,000 and above</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>100</td>
</tr>
</tbody>
</table>

Findings show the highest participation rate (20% of the total) from the costal region of Virginia, which includes the Norfolk naval base, a high-risk region from both population and national security vulnerability perspectives. In contrast, another high-risk region--Northern Virginia--represents the lowest participation rate at 7% of the total. Of the total 84 respondents, two localities did not respond to all of 22 questions citing breach of their security policy.
Graph 1 - Distribution of Respondent Localities by Size

Graph 2 – Number of Respondents by Population Size
Table 2 - Distribution of Respondents by Virginia Regions

<table>
<thead>
<tr>
<th>Virginia Regions</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region 1 – East Central</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Region 2 – North Central</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Region 3 – Central</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Region 4 – Southwest</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Region 5 – Coastal</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>Region 6 – Western</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Region 7 – Northern</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>100</td>
</tr>
</tbody>
</table>

Graph 3 – Distribution of Respondents by Jurisdictional Status

Rural = Population of up to 50,000
Urban = Population above 50,000
Research Questions: Analysis and Evaluation

Analyses and evaluations for each of the research questions and hypotheses are provided for each of the FHS priority. Using FHS Priority 1 as example, the sequence of presentation is as follows. Accordingly, findings are referenced as: P1-RQ1-Ha1.

FHS Priority 1: (P1)

- Research Question Hypotheses (RQ1- Ha1 and/or RQ 2- Ha 1)
- Survey Question 1 (SQ1)
- Corresponding Findings
- Corresponding Tables
- Corresponding Graphs

Hypothesis Outcome (Inference) → Discussion as applicable
Using tabular representation, data findings are displayed in proportions followed by graphs. Finding for all Virginia localities are discussed first, followed by the two population categories: small and large.

**Priority 1- FHS Priorities as the Primary Mission for Local Emergency Management**

RQ 1 - Ha 1: Localities consider HS as their top priority above other local issues.

Independent Variable = Federal government identification of HS threats from terrorist attack as the top priority for state and local EM officials.

Dependent Variable = Post 9/11 Priorities of Local Officials

RQ 2 - Ha 1: Larger localities consider HS as their priority to a greater degree.

Independent Variable = Population Size

Dependent Variable = Post 9/11 Priorities of Local Officials

Survey Questions 1 and 2 were analyzed to determine the findings for FHS Priority 1. Survey Question 1: “How concerned are you about the following possibilities in your locality?” was grouped into two parts. Part 1a explores officials’ perceptions toward nine types of WMD threats: car or truck bomb, biohazards, chemical, nuclear radiological, dirty bomb, cyber terrorism, suicide attacks and airplane used as a bomb. Part 1b combines terrorism threat with six other types of local issues: traditional crime, job layoffs, business shutdowns, natural disasters, hate crimes and loss of public confidence.
Survey Question 2 offers twelve critical issues facing localities and asks responders to rank their three top priorities.

**Survey Question 1a: How concerned are you about the following (WMD-related threat) possibilities in your locality?**

Findings-P1-RQ1-Ha1-SQ1a - All Localities:

Findings in Table 3 and Graph 5 show a 100% participation rate, which signifies localities’ awareness of the terrorism-related threats; however, less than one-third (30%) of Virginia respondents perceive terrorism as a possibility for their locality. Cyber terrorism tops the list at 30%, followed by suicide bombs at 26% and bio-hazard attacks at 25%.

**Table 3 (Survey Question 1a)**

“How concerned are you about the following possibilities in your locality?” (% responding “very concerned” or “moderately concerned”)

<table>
<thead>
<tr>
<th>Terrorism Threats</th>
<th>Population Size Up to 50,000</th>
<th>Over 50,000</th>
<th>% of All Localities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>20%</td>
<td>54%</td>
<td>30%</td>
</tr>
<tr>
<td>Cyber-terrorism</td>
<td>22</td>
<td>50</td>
<td>30</td>
</tr>
<tr>
<td>Radiological attack</td>
<td>12</td>
<td>30</td>
<td>17</td>
</tr>
<tr>
<td>Bio-hazard attack</td>
<td>13</td>
<td>54</td>
<td>25</td>
</tr>
<tr>
<td>Suicide bomb</td>
<td>20</td>
<td>42</td>
<td>26</td>
</tr>
<tr>
<td>Car or truck bomb</td>
<td>18</td>
<td>42</td>
<td>25</td>
</tr>
<tr>
<td>Chemical attack</td>
<td>20</td>
<td>38</td>
<td>25</td>
</tr>
<tr>
<td>Dirty bomb</td>
<td>10</td>
<td>39</td>
<td>18</td>
</tr>
<tr>
<td>Nuclear</td>
<td>10</td>
<td>25</td>
<td>14</td>
</tr>
<tr>
<td>Airplane as a bomb</td>
<td>7</td>
<td>29</td>
<td>13</td>
</tr>
</tbody>
</table>
Graph 5 (Survey Question 1a - % of All Localities)
“How concerned are you about the following possibilities in your locality?” (% responding “very concerned” or “moderately concerned”)

Findings: P1-RQ2- Ha1-SQ1a - Localities by Population Size:

Findings in Table 3 and Graph 6 show that larger localities perceive greater possibility of WMD-related threats than their smaller counterparts. The difference also reflects in ranking of categorical risks. Larger localities perceive bio hazards and cyber terrorism as the top two threats at 50% and 30% respectively, while 22% of the smaller localities perceive cyber terrorism as their highest possibility.
Survey Question 1b: How concerned are you about the following possibilities in your locality?

Findings: P1-RQ1-Ha1-SQ1b - All Localities:

In Survey Question 1b, respondents’ perceptions were analyzed for six other conventional priorities (crime, job layoffs, business shutdowns, natural disasters, hate crimes, and loss of public confidence) along with WMD threats.

A total of 85% overall Virginia localities report natural disasters to be the highest threat, followed by almost two-thirds (74%) expressing traditional crime as the next
highest concern. In comparison, terrorism-related concerns fell to fifth place at 30% for the overall localities in Virginia. While the findings do not support the hypothetical inference that terrorist threats are Virginia officials’ highest priority, the finding is an example of a threat to internal validity, specifically ‘history threat’ (Cook and Campbell, 1976) as it was no doubt related to natural events—hurricanes—taking place at the time. Still, based on the finding, the hypothesis is rejected.

Table 4 (Survey Question 1b)
“How concerned are you about the following overall possibilities in your locality?” (% of localities responding “very concerned” or “moderately concerned”)

<table>
<thead>
<tr>
<th>Types of Issues</th>
<th>Population Size</th>
<th>% of All Localities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Up to 50,000</td>
<td>Over 50,000</td>
</tr>
<tr>
<td>Natural disasters</td>
<td>82%</td>
<td>92%</td>
</tr>
<tr>
<td>Crimes</td>
<td>72%</td>
<td>79%</td>
</tr>
<tr>
<td>Job layoffs</td>
<td>57%</td>
<td>38%</td>
</tr>
<tr>
<td>Business shutdowns</td>
<td>48%</td>
<td>33%</td>
</tr>
<tr>
<td>Terrorism</td>
<td>20%</td>
<td>54%</td>
</tr>
<tr>
<td>Hate crimes</td>
<td>22%</td>
<td>46%</td>
</tr>
<tr>
<td>Loss of confidence</td>
<td>22%</td>
<td>33%</td>
</tr>
</tbody>
</table>

According to a February 15, 2005 statement released by the Virginia Department of Emergency Management, 2004 set a record for tornadoes in Virginia. Weather-service records show 86 tornadoes touch-downs in 52 localities during the year—four to six times the normal number that hit the state in any given year. Three-quarters of the state’s 2004 tornadoes were associated with the remnants of hurricanes Gaston, Ivan and Jeanne, according to the National Weather Service in Wakefield. Reports also show that Virginia was struck by the seventh largest number of tornadoes of any state in 2004. Seven tropical hurricanes: Alex, Bonnie, Charley, Frances, Gaston, Ivan and Jeanne, affected Virginia during the 2004 hurricane season.
Findings: P1-RQ2-Ha1-SQ1b - Localities by Population Size:

Among the seven categories of local issues: natural disaster, crimes, job layoffs, business shutdown, terrorism, hate crimes and loss of confidence in government (Table 4, Graph 8), larger communities consistently show greater concern in all but two categories: job layoff and business shutdowns.

Although concern for terrorism-related threats dropped for both population groups significantly, more than half (54%) of the larger localities still perceived it a greater threat than their smaller counterparts, where it dropped as the last priority. Among the smaller localities, only one in five officials considers it to be an issue of concern. The findings are consistent with the hypothesis; therefore, it cannot be rejected.
Graph 8 (Survey Question 1b -% by Population Size)

“How concerned are you about the following overall possibilities in your locality?”
(Those responding “very concerned” or “moderately concerned”)

Discussion:

Even though one in three local practitioners expressed concern about potential terrorism threats, in general, officials perceive a variety of other issues as priority for their locality. While a clear majority (85%) perceives natural disasters as the highest concern for their locality, it should be noted that Virginia has had two consecutive turbulent hurricane seasons during 2003 and 2004. In fact, 2004 was an exceptionally active year for Virginia and surpassed the previous year’s record season for similar type of natural turbulences.
Similarly, 74% of the participants consider crime as their top concern, which is an important finding except for the fact that a significant portion (56 of the total 141 or 40%) of Virginia’s local emergency coordinators also double as local law-enforcement official. In U. S. surveys conducted over the past three decades, crime prevention consistently shows as the top priority for local law-enforcement officials.

Survey Question 2: Which three issues are most important for your locality?

Findings: P1-RQ1-Ha1-SQ2 - All Localities:

When asked to identify three issues currently most important needing to be addressed in their localities, 68% of the overall respondents expressed investing in terror prevention, preparedness and training as their top priority (Table 5, Graph 9). The other two top concerns are economic improvements (49%) and public safety and crime prevention (37%). Based on these findings, it can be concluded that although Virginia localities do not perceive WMD-related terrorism threats to be their localities’ top concern, they do perceive investment in terror prevention, preparedness and training to be their top priority. The findings are consistent with the hypothesis; therefore, it cannot be rejected.
### Table 5 (Survey Question 2 – Response in %)

“Of the following, which three issues are most important to address in your locality?”

<table>
<thead>
<tr>
<th>Issue</th>
<th>Up to 50,000</th>
<th>Over 50,000</th>
<th>% of All Localities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pub safety/crime prevention</td>
<td>68%</td>
<td>67%</td>
<td>37%</td>
</tr>
<tr>
<td>Terror prevention/preparedness</td>
<td>32</td>
<td>50</td>
<td>68%</td>
</tr>
<tr>
<td>Economic improvements</td>
<td>57</td>
<td>29</td>
<td>49%</td>
</tr>
<tr>
<td>Infrastructure protection</td>
<td>38</td>
<td>29</td>
<td>13%</td>
</tr>
<tr>
<td>Public education</td>
<td>33</td>
<td>25</td>
<td>13%</td>
</tr>
<tr>
<td>Neighborhood revitalization</td>
<td>8</td>
<td>25</td>
<td>18%</td>
</tr>
<tr>
<td>Support for local strategy</td>
<td>18</td>
<td>17</td>
<td>36%</td>
</tr>
<tr>
<td>Intergovernmental relations</td>
<td>8</td>
<td>17</td>
<td>31%</td>
</tr>
<tr>
<td>Community relations</td>
<td>22</td>
<td>13</td>
<td>17%</td>
</tr>
<tr>
<td>Reduced health service costs</td>
<td>20</td>
<td>13</td>
<td>18%</td>
</tr>
<tr>
<td>Affordable housing</td>
<td>13</td>
<td>13</td>
<td>19%</td>
</tr>
<tr>
<td>Natural resource protect</td>
<td>20</td>
<td>8</td>
<td>11%</td>
</tr>
</tbody>
</table>

### Graph 9 (Survey Question 2 - % of All Localities)

“Of the following, which three issues are most important to address in your locality?”

[Graph showing bar chart]
Findings: P1-RQ2-Ha1-SQ2 - Localities by Population Size:

When asked to rank three currently most important priorities needing to be addressed in localities, more than half (52%) of the participants from large localities perceive terrorism threats among the top three priorities as opposed to less than 1/3 (32%) of their counterparts from smaller localities (Graph 10). The findings are consistent with the hypothesis; therefore, it cannot be rejected.

**Graph 10 (Survey Q. 2 - % by Population Size)**

“Which three issues are most important in addressing your locality’s concerns?”
Priority 2 – Increased HS-Related Priority for Planning and Preparedness

RQ1-Ha 1: Localities have increased their HS-related planning and preparedness efforts.

Independent Variable = Federal Expectation of Increased FHS Planning and Preparedness at Local Levels

Dependent Variable = Level of Local FHS Planning and Preparedness Efforts

RQ2-Ha 1: Larger localities have increased their HS-related planning and preparedness efforts

Independent Variable = Population Size

Dependent Variable = Level of Local HS Planning and Preparedness Efforts

Survey Question 3: Has your local government integrated the HS Advisory System into its planning efforts?

Findings: P2-RQ1-Ha1-SQ3 - All Localities:

The findings (Table 6, Graph 11) suggest that overall, 57% of all Virginia locations have incorporated the National HS Advisory System alerts (color-coded alerts) into their local planning efforts irrespective of the relatively low-level of concerns toward the WMD-related threats, as reported in Survey Question 1b. An additional 18% reported to currently working on this effort. The findings indicate that localities consider the federal HS priority as their local priority. The findings are consistent with the hypothesis; therefore, it cannot be rejected.
Table 6 (Survey Question 3 - % of Overall Localities)  
“Have you integrated the National HS Advisory System into local planning efforts?”

<table>
<thead>
<tr>
<th></th>
<th>Up to 50,000</th>
<th>Over 50,000</th>
<th>% of All Localities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>52%</td>
<td>69%</td>
<td>57%</td>
</tr>
<tr>
<td>Working on it</td>
<td>27</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>No</td>
<td>19</td>
<td>15</td>
<td>24</td>
</tr>
<tr>
<td>Don't know</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Graph 11 (Survey Question 3 - % of All Localities)  
“Have you integrated the National HS Advisory System into local planning efforts?”

Findings: P2-RQ2-Ha1-SQ3 (Localities by Population Size):

When compared along population size, once again, larger population report (Table 5, Graph 12) adoption of the National HS Advisory System into their planning efforts to a great degree (69%) than their smaller counterparts (57%). The findings are consistent with the hypothesis; therefore, it cannot be rejected.
Graph 12 (Survey Question 3 - % by Population Size)
“Have you integrated the National HS Advisory System into local planning efforts?”

Survey Question 4: What types of terrorist attacks are addressed in your local planning efforts?

Findings: P2-RQ1-Ha1-SQ4 - All Localities:

Findings regarding local planning efforts, as compared to local concerns (Table 7, Graph 14) demonstrate a high degree of effort to incorporate various WMD-related threats into local planning efforts. For instance, 92% of Virginia localities report incorporation of planning efforts against the threats of biological and chemical attacks. The findings are consistent with the hypothesis; therefore, it cannot be rejected.
Table 7 (Survey Question 4 – % of All Localities)
Overall Local Levels of Concern vs. Planning Efforts

<table>
<thead>
<tr>
<th>Terrorist Threat</th>
<th>Vulnerability Rating showing “Highly Concerned” (in %)</th>
<th>Percent of Localities Addressing Terrorism Threats in Local Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological attacks</td>
<td>25</td>
<td>92</td>
</tr>
<tr>
<td>Chemical attacks</td>
<td>25</td>
<td>92</td>
</tr>
<tr>
<td>Radiological attacks</td>
<td>17</td>
<td>88</td>
</tr>
<tr>
<td>Nuclear attacks</td>
<td>14</td>
<td>83</td>
</tr>
<tr>
<td>Car or truck bomb</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>Airplane used as bomb</td>
<td>13</td>
<td>75</td>
</tr>
<tr>
<td>Combination/dirty bomb</td>
<td>18</td>
<td>54</td>
</tr>
<tr>
<td>Cyber-terrorism</td>
<td>30</td>
<td>54</td>
</tr>
<tr>
<td>Individual suicide bomb</td>
<td>26</td>
<td>42</td>
</tr>
</tbody>
</table>

Graph 13 (Survey Question 4 - % of All Localities)
Overall Local Levels of Concern vs. Planning Efforts
Findings: P2-RQ2-Ha1-SQ4 - Localities by Population Size:

Local planning efforts among larger localities report increased efforts than their smaller counterparts in all categories of post-9/11 terrorist threats, as shown in Table 8. Overall, 88% of the larger localities reported planning efforts for three types of threats: biohazards, chemical and radiological attacks, while 81% of the smaller localities have taken measures to increase their planning efforts to counter biohazard and chemical attacks. Interestingly, both large and small localities show a lower degree of planning efforts toward one of the high-priority threat: cyber-terrorism. This finding is consistent with the national trend however because in 2004, localities are still struggling with appropriate measure since a national standard had not been available yet. The findings are consistent with the hypothesis; therefore, it cannot be rejected.

Table 8 (Survey Question 4 – % by Population Size)
Overall Level of HS Planning Efforts

<table>
<thead>
<tr>
<th>WMD Threats</th>
<th>Up to 50,000</th>
<th>Over 50,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biohazard/biological</td>
<td>81</td>
<td>88</td>
</tr>
<tr>
<td>Chemical attack</td>
<td>81</td>
<td>88</td>
</tr>
<tr>
<td>Radiological attack</td>
<td>67</td>
<td>88</td>
</tr>
<tr>
<td>Nuclear attack</td>
<td>64</td>
<td>85</td>
</tr>
<tr>
<td>Car or truck bomb</td>
<td>43</td>
<td>73</td>
</tr>
<tr>
<td>Airplane crash</td>
<td>48</td>
<td>69</td>
</tr>
<tr>
<td>Dirty bombs</td>
<td>31</td>
<td>50</td>
</tr>
<tr>
<td>Cyber-terrorism</td>
<td>24</td>
<td>50</td>
</tr>
<tr>
<td>Individual suicide attack</td>
<td>28</td>
<td>42</td>
</tr>
</tbody>
</table>

9 Emergency Support Function 3 (ESF) of the National Response Plan deals with Cyber-terrorism planning. During the efforts to update the City of Richmond’s Emergency Operations Plan in 2004, federal guidelines were not available for this particular category.
Graph 14 (Survey Question 4 – % by Population Size)
Overall Level of Planning Efforts

Priority 3 – Increased Intergovernmental Cooperation

RQ1-Ha 1: Localities have or plan to increase their intergovernmental cooperation efforts with other governments in planning for HS.

Independent Variable = Federal Expectation of Increased FHS-related Intergovernmental Coordination at Local Levels

Dependent Variable = Level of Intergovernmental Efforts toward HS Planning

RQ2-Ha 1: Larger localities have or plan to increase their intergovernmental cooperation efforts with other governments in planning for HS.

Independent Variable = Population Size

Dependent Variable = Level of Intergovernmental Efforts in HS Planning
Survey Question 10: Since 9/11, how much has your local government increased its coordination with the following?

Findings: P3-RQ1-Ha1-SQ10 - All Localities:

Overall, all responding Virginia localities reported a significant increase in intergovernmental coordination during the post-9/11 period (Table 9). The top three entities include other cities (96%), state government (95%) and media (93%). Coordination with federal government ranks fourth at 92%.

Discussion:

Although coordination with federal government ranks fourth, it is a logical outcome since under bureaucratic system, state government acts as the clearinghouse for local governments. Because the findings do not support the hypothesis, it is rejected.

Table 9 (Survey Question 10 - % of All Localities)
“Since 9/11, how much has your local govt increased its coordination with…?”
(Those responding “Fair, “A good Amount” and “A great Deal”)

<table>
<thead>
<tr>
<th></th>
<th>Up to 50,000</th>
<th>Over 50,000</th>
<th>All Localities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Cities</td>
<td>80%</td>
<td>100%</td>
<td>86%</td>
</tr>
<tr>
<td>Other Counties</td>
<td>95</td>
<td>100</td>
<td>96</td>
</tr>
<tr>
<td>State Government</td>
<td>93</td>
<td>100</td>
<td>95</td>
</tr>
<tr>
<td>Nonprofits</td>
<td>72</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>Federal Government</td>
<td>90</td>
<td>96</td>
<td>92</td>
</tr>
<tr>
<td>Media</td>
<td>92</td>
<td>96</td>
<td>93</td>
</tr>
<tr>
<td>Neighborhoods</td>
<td>72</td>
<td>92</td>
<td>77</td>
</tr>
<tr>
<td>Business Sector</td>
<td>75</td>
<td>88</td>
<td>79</td>
</tr>
<tr>
<td>Civic Groups</td>
<td>82</td>
<td>88</td>
<td>83</td>
</tr>
<tr>
<td>NGOs/COGs</td>
<td>47</td>
<td>75</td>
<td>55</td>
</tr>
</tbody>
</table>
Graph 15 (Survey Question 10 - % of All Localities)
“Since 9/11, how much has your local govt increased its coordination with…?”
(Those responding “Fair, “A good Amount” and “A great Deal”)

Findings: P3-RQ2Ha1-SQ10 - Localities by Population Size:

Larger cities consistently show greater increase in their localities’
intergovernmental coordination efforts than their smaller counterparts. In fact,
coordination with cities, counties, state government and non-profits are increased by
100%. The findings support the hypothesis; therefore, it cannot be rejected.
**Graph 16 (Survey Question 10 - % by Population Size)**

“Since 9/11, how much has your local govt increased its coordination with…?”
(Those responding “Fair, “A good Amount” and “A great Deal”)

Survey Question 11: For your locality, what is the likelihood of increased collaboration and coordination across levels of governments, agencies and other organizations in the following activities?

Findings: P3-RQ1-Ha1-SQ11 - All Localities:

All localities report significant degree of perceived increase (Table 10, graph 16) in the post-9/11 environment. The highest increase is observed in the category of communications (95%), followed by evacuation and public health categories at 92% each. Based on these findings, the hypothesis cannot be rejected.
Table 10 (Survey Question 11 - % of All Localities)
“Likelihood of increased inter-govt/inter-agency collaboration for...”
(Those responding “Likely” and “Very Likely”)

<table>
<thead>
<tr>
<th>Area</th>
<th>Up to 50,000</th>
<th>Over 50,000</th>
<th>All Localities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications capacity</td>
<td>93</td>
<td>100</td>
<td>95</td>
</tr>
<tr>
<td>Public information efforts</td>
<td>88</td>
<td>100</td>
<td>91</td>
</tr>
<tr>
<td>Evacuation</td>
<td>90</td>
<td>96</td>
<td>92</td>
</tr>
<tr>
<td>Public health facilities</td>
<td>90</td>
<td>96</td>
<td>92</td>
</tr>
<tr>
<td>Technology systems</td>
<td>78</td>
<td>96</td>
<td>83</td>
</tr>
<tr>
<td>Working with media</td>
<td>86</td>
<td>96</td>
<td>90</td>
</tr>
<tr>
<td>Protection of infrastructure</td>
<td>90</td>
<td>88</td>
<td>89</td>
</tr>
<tr>
<td>Transportation routing</td>
<td>88</td>
<td>88</td>
<td>88</td>
</tr>
</tbody>
</table>

Graph 17 (Survey Question 11 - % of All Localities)
“Likelihood of increased inter-govt/inter-agency collaboration for...”
(Those responding “Likely” and “Very Likely”)

Findings: P3-RQ2-Ha1-SQ11 - Localities by Population Size:

Findings in Table 10 and Graph 11 show that except for infrastructure protection, all, larger localities show a slight increase in the likelihood of intergovernmental and
interagency coordination and collaboration for various activities. Based on these findings, the hypothesis cannot be rejected.

**Graph 18 (Survey Question 11 - % by Population Size)**
“Likelihood of increased inter-govt/inter-agency collaboration for...”
(Those responding “Likely” and “Very Likely”)

□ Up to 50,000  □ Over 50,000
**Priority 4 – Increased Citizen Participation**

RQ1-Ha 1: Localities have or plan to increase citizen participation toward local safety and security.

Independent Variable = Federal Expectation of Increased Citizen Participation toward FHS-related safety and security

Dependent Variable = Level of Local Citizen Participation toward HS-related Safety and Security

RQ2-Ha 1: Larger localities have a higher degree of citizen participation toward local HS planning.

Independent Variable = Population Size

Dependent Variable = Level of Local Citizen Participation toward HS-related Safety and Security

Beginning with Survey Question 12, practitioners’ response to three questions: 12, 13 and 14 is analyzed to determine if increasing citizen involvement has become a local priority as well.

**Survey Question 12: Does your local government have a formal plan for informing the public and disseminating information in future?**

**Findings: P4-RQ1-Ha1-SQ12 - All Localities:**

Table 11 shows a significant majority (85%) of Virginia’s overall localities have developed a plan for informing the public and disseminating information in future, and another 13% planning a strategy to do so. These findings support the hypothesis therefore it cannot be rejected.
Table 11 (Survey Question 12 - % of All Localities)
“Does your local government have a formal plan for informing the public and disseminating information in future?”

<table>
<thead>
<tr>
<th></th>
<th>Up to 50,000</th>
<th>Over 50,000</th>
<th>All Localities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>81%</td>
<td>92%</td>
<td>85%</td>
</tr>
<tr>
<td>Strategy being developed</td>
<td>16</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Graph 19 (Survey Question 12 - % of All Localities)
“Does your local government have a formal plan for informing the public and disseminating information in future?”

Findings: P4-RQ2-Ha1-SQ12 - Localities by Population Size:

Table 11 and Graph 20 show that 92% of the larger localities have developed a plan for informing the public and disseminating information in future, as opposed to 81% of the smaller localities. Overall, 8% of larger localities have plan underway to increase this activity, which makes a 100% participation. These findings support the hypothesis therefore it cannot be rejected.
Graph 20 (Survey Question 12 - % by Population Size)

“Does your local government have a formal plan for informing the public and disseminating information in future?”

Survey Question 13: To what level are local residents involved in the discussions about homeland security?

Findings: P4-RQ1-Ha1-SQ13 - All Localities:

Table 12 and Graph 21 show the breakdown of Virginia’s practitioners’ perceptions regarding citizen involvement in local HS-related plans. Overall, when three level of responses “a fair amount,” “a good amount” and “a great deal” are combined, a total of 74% of Virginia’s overall localities report increased level of citizen Post-9/11 involvement. This finding support the hypothesis therefore it cannot be rejected.
Table 12 (Survey Question 13 - % of All Localities)
“To what level are local residents involved in the discussion about HS?”

<table>
<thead>
<tr>
<th></th>
<th>Up to 50,000</th>
<th>Over 50,000</th>
<th>All Localities</th>
</tr>
</thead>
<tbody>
<tr>
<td>A fair amount</td>
<td>55</td>
<td>65</td>
<td>58</td>
</tr>
<tr>
<td>A good amount</td>
<td>10</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>A great deal</td>
<td>0</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Don’t know</td>
<td>7</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Not at all</td>
<td>28</td>
<td>8</td>
<td>21</td>
</tr>
</tbody>
</table>

Graph 21 (Survey Question 13 - % of All Localities)
“To what level are local residents involved in the discussion about HS?”

Findings: P4-RQ2-Ha1-SQ13 - Localities by Population Size:

Table 12 and Graph 22 show the breakdown of Virginia’s practitioners’ regarding involvement of citizens in local HS-related plans. Overall, a great proportion (92%) of larger localities report citizen involvement in HS-related planning discussions than their smaller counterparts (65%). This finding support the hypothesis therefore it cannot be rejected.
Survey Question 14: To what level are local residents involved in the decisions about homeland security?

Findings: P4-RQ1-Ha1-SQ14 - All Localities:

Table 13 and Graph 23 show the breakdown of Virginia’s practitioners’ perceptions regarding citizen involvement in local HS-related decision making. Overall, a little over half (53%) of the responses—which represents a combination of responses in “a fair amount,” “a good amount” and “a great deal” categories—report citizen involvement in decision making. This finding does not support the hypothesis and is rejected.

Discussion:

Although the overall responses demonstrate a relatively lower level of citizen participation in decision-making, the findings are reasonable. Citizens cannot be
included in decision-making process beyond a certain limit because homeland security
dictates a significant degree of discretion and confidentiality. For a better understanding,
this question may be modified to ask specific types of involvement in decision making.

Table 13 (Survey Question 14 - % of All Localities)
“To what level are local residents involved in the decisions about HS?”

<table>
<thead>
<tr>
<th></th>
<th>Up to 50,000</th>
<th>Over 50,000</th>
<th>All Localities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>41</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>A fair amount</td>
<td>48</td>
<td>27</td>
<td>42</td>
</tr>
<tr>
<td>A good amount</td>
<td>5</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>A great deal</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Don't know</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

Graph 23 (Survey Question 14 - % of All Localities)
“To what level are local residents involved in the decisions about HS?”

Findings: P4-RQ2-Ha1-SQ14 - Localities by Population Size:

Overall, when responses to “a fair amount,” “a good amount” and “a great deal”
categories are combined, 53% of smaller localities show a slightly higher citizen involvement in decision-making than their larger counterparts (52%). This finding does not support the hypothesis and is rejected.

**Discussion:**

Because of the close-knit character of smaller localities, it is expected to have greater citizen participation in local decision-making. In larger localities, the governmental processes tend to be much more formal. The combination of high-risk inclination and HS being a sensitive matter, larger localities are also expected to have limited citizen involvement in HS-related decision-making process.

**Graph 24 (Survey Question 14 - % by Population Size)**

“To what level are local residents involved in the decisions about HS?”

![Graph showing the level of involvement in decisions about HS by population size](image)
Priority 5 – Increase in HS-related Spending

RQ1-Ha 1: Localities have increased spending on homeland security.

Independent Variable = Federal Expectation of Increased FHS-related Spending

Dependent Variables = Level of Local HS spending

RQ2-Ha 1: Larger localities are spending greater amount of money on homeland security.

Independent Variable = Population Size

Dependent Variable = Level of Local HS spending

Participant response to Survey Questions 17 and 18 is analyzed to determine if as a result of 9/11, localities have increased, and expect increased HS spending in future.

Survey Question 17: What was the impact of 9/11 on your local government’s spending on public safety and security?

Findings: P5-RQ1-Ha1-SQ17 - All Localities:

As the impact of the 9/11 attacks, the majority (72%) of Virginia practitioners show (Table 14, Graph 25) increase in local public safety and security spending. Overall, almost 1 in four respondents (27%) perceives little or no change in such spending. This finding supports the hypothesis and cannot be rejected.

Table 14 (Survey Question 17 - % of All Localities)
“What was the impact of 9/11 on local public safety and security spending?”

<table>
<thead>
<tr>
<th></th>
<th>Up to 50,000</th>
<th>Over 50,000</th>
<th>All Localities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
<td>55</td>
<td>50</td>
<td>54</td>
</tr>
<tr>
<td>Significantly increased</td>
<td>17</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Little or no change</td>
<td>26</td>
<td>31</td>
<td>27</td>
</tr>
<tr>
<td>Decreased</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Graph 25 (Survey Question 17 - % of All Localities)
“What was the impact of 9/11 on local public safety and security spending?”

Findings: P5-RQ2-Ha1-SQ17 - Localities by Population Size:

Findings show (Table 14, Graph 26) that a higher proportion of smaller localities (72%) report a greater increase than the larger localities, where 69% report increased spending on local public safety and security as a result of 9/11 terrorist attacks. This finding does not support the hypothesis and is rejected.

Discussion:

The fact that larger localities do not perceive higher spending is curious. Because larger localities are more at risk, they are expected to incur higher spending in protection of airports, water supplies, etc. However, it may also be true that smaller localities may not be able to afford any amount of spending due to limited revenue base. Also, the level of difference between the two population groups may be due to chance.
**Graph 26 (Survey Question 17 - % by Population Size)**

“What was the impact of 9/11 on local public safety and security spending?”

<table>
<thead>
<tr>
<th></th>
<th>Up to 50,000</th>
<th>Over 50,000</th>
<th>All Localities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
<td>55</td>
<td>24</td>
<td>21</td>
</tr>
<tr>
<td>Significantly increased</td>
<td>15</td>
<td>53</td>
<td>62</td>
</tr>
<tr>
<td>No change</td>
<td>38</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>Decreased</td>
<td>11</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

**Survey Question 18: Compared to public safety and security spending prior to 9/11, what will be the impact on your local spending regarding public safety and security in the future?**

**Findings: P5-RQ1-Ha1-SQ18- All Localities:**

Overall, three in four (75%) Virginia practitioners perceive a higher future spending for public safety and security. This finding is consistent with the expectation of increased FHS-related spending; therefore, the hypothesis cannot be rejected.

**Table 15 (Survey Question 18 - % of All Localities)**

“What will be the impact of 9/11 on future public safety and security spending?”
Findings: P5-RQ2-Ha1-SQ18 - Localities by Population Size:

Overall, three-fourths (77%) of Virginia practitioners believe a higher future spending for public safety and security as opposed to a slightly lower proportion of smaller (74%) localities. This finding is consistent with the hypothesis; therefore, it cannot be rejected.
Summary

The purpose of this chapter was to determine the support or rejection of the two research questions: (1) have the priorities of the new federal homeland security strategy been accepted as local priorities; and, (2) is population a factor whether or not the federal HS priorities were accepted? The findings confirm this research study’s two overall hypothetical assumptions based on statistical evidence, that: (1) new national FHS priorities for all emergency management organizations at all levels of the government have reshaped the local priorities; and, (2) larger localities (those having a greater than 50,000 population) consider HS as their priority to a greater degree.
CHAPTER FIVE

FINDINGS AND CONCLUSION

Summary of the Study

The purpose of this descriptive, cross-sectional study was two-fold: to analyze the post-9/11 federal homeland security (FHS) priorities’ acceptance among the Virginia’s local public emergency-management practitioners, and to explore what explains their acceptance or rejection. For the first purpose, two research questions were considered:

1. Have the priorities of the new federal homeland security strategy been accepted as local priorities?
2. Is population a factor whether or not the federal HS priorities were accepted?

Using a survey of Virginia’s local practitioners, two hypotheses were tested: (1) The new national FHS priorities have reshaped the local priorities; and, (2) Larger localities (over 50,000 population size) consider HS as their priority to a greater degree.

As a descriptive cross-sectional study, this study’s research instrument involved an opinion survey. A replication of California’s 2002 survey, the questionnaire was mailed to Virginia’s 141 local practitioners to collect their opinions on the five FHS priorities: (1) homeland security as the primary mission for local emergency management; (2) increased level of HS-related planning and preparedness; (3) increased intergovernmental cooperation; (4) increased citizen participation; and, (5) increase in HS-related spending. The findings were used in evaluating: (a) the localities’ acceptance
of the federal priorities; and (b) localities’ comparison based on the two populations
groups: small (up to 50,000) and large (over 50,000). The overall findings suggest
localities acceptance of the FHS priorities.

To explore what explains the localities’ response to FHS priorities, two theoretical
concepts: path dependence and bureaucratic management were also explored. Two
questions were used in operationalizing these concepts as well. For Path Dependence,
the questions analyzed were: (1) Does the federal government’s relationship to the local
government in the post 9/11 planning resemble the pre-9/11 relationship? (2) Is the local
role in emergency planning, as envisioned by the new FHS, similar and/or based upon the
pre-9/11 role? Similarly, bureaucratic management was analyzed by asking: (1) Whether
the post-9/11 intergovernmental bureaucratic relationship among the layers of
government resemble the pre-9/11 relationship; and, (2) Whether the federal government
used legislative and budgetary tools to compel localities to follow the federal lead?

Additionally, a comparison between California and Virginia practitioners’
perceptions was conducted to determine the similarities and differences between the two
states over a two-year gap.

The purpose of this chapter is to provide a summary of the following:

(1) Data results and findings of the two research questions and corresponding
    hypotheses along the five FHS priorities.

(2) Discussion of how path dependence and bureaucratic management explain the
    acceptance of the priorities.
Data Results and Findings

Based on the overall findings, Virginia localities were found to be in step with the federal HS priorities, which signifies acceptance. The data analysis produced the following findings and results for the five FHS priorities.

Priority 1: Homeland security as the primary mission for local emergency management

Based on the findings, hypotheses for both research questions were accepted (cannot be rejected). However, only one of the two survey questions (Q. 2) directly addressed the inquiry based on which the hypotheses could be tested. Therefore, either rewording of the existing question or addition of new questions would be helpful. A summary of the key findings follows.

- Among the WMD-related threats including car or truck bomb, biohazards, chemical, nuclear radiological, dirty bomb, cyber terrorism, suicide attacks and airplane used as a bomb; less than one-third (30%) of Virginia practitioners perceive terrorism as a possibility for their locality. Cyber-terrorism tops the list of potential threats.

- Larger localities (those exceeding population of 50,000) perceive greater possibility of WMD-related threats than their smaller (up to 50,000) counterparts. One-half of larger localities consider bio-hazards as their primary threat. In comparison, 22% of the smaller localities perceive cyber threat as their highest risk.
• When given the choice of issues facing their communities such as terrorism, crime, job layoffs, business shutdowns, natural disasters, hate crimes, and loss of public confidence, 85% of Virginia localities ranked natural disasters as the top concern. However, this finding is not unusual given the fact that two consecutive years of turbulent weather patterns had just ended during this survey causing severe hardship on localities.

• When asked to rank their localities’ top three highest concerns in order of priority, the majority (68%) of Virginia localities reported terror prevention, preparedness and training as their highest priority. However, both large and small localities consider crime prevention as their highest priority.

Priority 2: Increased Level of HS-related Planning and Preparedness

Based on the findings, all hypotheses for both research questions were accepted. Other key findings are:

• The majority of Virginia localities have increased their HD-related planning and preparedness efforts. Overall, 57% of localities have incorporated the National HS Threat Advisory (color-coded) system’s recommendations into local plans. A greater proportion (69%) of larger localities and one-half of the smaller localities have done so.

• Virginia localities’ planning efforts show a marked increase toward various WMD threats, which range form 92% (biological and chemical attacks) to 42% (suicide bombs). Also, larger localities are ahead of the smaller localities in such efforts.
Priority 3 – Increased Intergovernmental Cooperation

Based on the findings, all hypotheses for both research questions were accepted. Other key findings are:

• Overall, Virginia localities reported a significant increase in intergovernmental coordination since the 9/11 terrorist attacks. The highest level of intergovernmental cooperation is reported as: with other cities (96%), with state government (95%) and media (93%). Coordination with federal government ranks fourth at 92%.

• Larger localities have increased their intergovernmental cooperation by 100% in four categories: with other cities, counties, state government and non-profits. The finding regarding state government in particular is in keeping with the bureaucratic management set-up because the federal government has maintained the state government’s role as a clearinghouse in executing the post-9/11 relationships.

• The majority (95%) of Virginia localities perceive increased collaboration and coordination across the levels of government through communication. Overall 100% of larger localities and 93% of smaller localities support this perception. Larger communities (100%) also perceive public information efforts to be critical for increased collaboration and coordination.

Priority 4: Increased Citizen Participation

Based on the findings, all hypotheses for both research questions were accepted. Other key findings are:
• A significant majority (85%) of Virginia’s overall localities have developed a plan for informing the public and disseminating information in future, and another 13% planning a strategy to do so. Larger localities are slightly ahead (at 92%) of their smaller counterparts (81%) in this effort.

• Overall, 74% of Virginia localities report post-9/11 citizen involvement in local HS-related planning discussions. Among the two population groups, 92% of the larger localities reported citizen participation than the smaller localities (65%).

• Overall, almost one-half (52%) of localities reported citizen involvement in HS-planning-related decisions for their community. Smaller communities reported a slightly higher (53%) citizen participation for the same as opposed to their larger counterparts (46%).

Priority 5 – Increase in HS-related Spending

Based on the findings, hypothesis for Research Question 1 was accepted. However, for Research Question 2, it was rejected as a slightly greater proportion of smaller localities report higher increase in HS spending, as explained below.

• Almost two-thirds (72%) of Virginia localities reported increase in their HS-related spending. Among the two population groups, there is only a slight difference between the smaller (72%) of larger communities (69%) that incurred the increase.
Evaluation of Theoretical Concepts

Two inquiries: (1) whether the federal government’s relationship to the local government in the post 9/11 planning resemble the pre-9/11 relationship; and (2) whether the local role in emergency planning, as envisioned by the new FHS, similar/based upon the pre-9/11 role, are used as the basis for the theoretical analysis. The evolution of homeland security/emergency management policies before and after the 9/11 terrorist attacks provide the basis for the hypotheses that path dependence and bureaucratic management may have played a critical role in swift implementation and acceptance of the federal priorities at the local level.

Path Dependence

This study asserts that contrary to popular belief, the seemingly ‘rushed decision’ of post-9/11 reorganization did not begin from “a blank page” (Daalder, 2002), rather, the post-9/11 FHS strategy is rooted in path-dependent actions, which helped propel the post-9/11 federal strategy. The supposition of this study is that path dependence played a critical role in facilitating the new FHS strategy and acceptance of its priorities. Figure 3 and Table 16 provide the evidence supporting the supposition of path dependence. Figure 3 explains the path-dependent dynamics of the intergovernmental relationships at all three levels of government, while Table 16 elaborates how the post-9/11 “new” actions have been primarily a modified continuation of the evolutionary federal-local relationships of the past.
Figure 3 - The Post-9/11 FHS Strategy and Path Dependence

**Changed HS Priorities at Federal Level:**
1. Legislation (HS Act of 2002)
2. Reorganization (OHS, HSC, DHS)
3. Implementation of mandates and incentives through FEMA
4. Continuation of federal assistance to state and local systems through modification of existing systems.

**Virginia State:**
1. Reorganization of the existing Emergency Mgmt agency to incorporate FHS-related priorities.
2. Legislative amendment to create local emergency coordination position within existing emergency service and/or law-enforcement agencies such as fire/police.

**Local Level:**
1. Continued compliance with federal and state requirements
2. Continued dependency upon federal and state funding and TA
3. When unclear, path-dependent handling of emergent situations

In spite of the reorganization, VDEM continues its role based on path-dependent actions as usual.

As in the past, localities continue to take direction from federal govt through state govt as a clearinghouse for EMS compliance & funding. Localities also use ad-hoc, path-dependent methods to handle EM when unsure.

Virtually all federal actions were based on a path dependent, historic precedent which saved time and efforts thus expediting the process.
Summarizing four specific examples of path-dependent actions, Table 16 begins with the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 106-390, October 30, 2000, 42 USC 5121, et seq.), which embodies a tiered approach. This relationship shows that the historic roles of various levels of governments in managing emergencies have been primarily amended to expand and/or include major terrorism-related disasters. For instance, prior to 9/11, the 2000 amendment of the Stafford Act allowed the local and state governments to call upon the federal government for additional relief to help the citizens of the effected areas upon meeting certain conditions during disasters. The post-9/11 modification—the Community Protection and Response Act of 2003—was added to extend the same scrutiny in the case of terrorist attacks and other catastrophic man-made events.

Similarly, a review of FEMA’s past shows that from its inception in 1979 and dependent on the need, it has been empowered by various presidents for setting up various actions and programs at the local levels. For example, in the 1980s, FEMA was charged to develop a civilian program known as “Comprehensive Emergency Management” (CEM), which refers to the responsibility for managing responses to all types of disasters and emergencies through the coordination of multiple federal agencies and local entities. One of the concepts of CEM was the division of emergency activity into four ‘phases,’ specifically mitigation, preparedness, response, and recovery (FEMA, 2004). Another concept was Integrated Emergency Management System (IEMS), which highlighted the “all-hazards” function for emergency response. Because of its visibility
among the local constituencies, FEMA was summoned to handle the 1993 World Trade Center bombing as well as the 1995 bombing of the Oklahoma’s Murrah federal office building. This precedent set FEMA’s post-9/11 identity within the DHS.

Another evidence of the path-dependent relationship between the federal, state and local systems is the Incident Command System (ICS), which was developed in the 1970s following a series of catastrophic fires in California’s urban interface. As part of FEMA’s National Response Plan (NRP), the system was expanded and became the National Incident Management System (NIMS). On February 28, 2003, President Bush issued Homeland Security Presidential Directive (HSPD)-5, Management of Domestic Incidents, which directed the Secretary of Homeland Security to develop and administer the NIMS. The post-9/11 NIMS provides a consistent, flexible and adjustable national framework within which all levels of government and private entities can work together to manage domestic incidents, regardless of their cause, size, location or complexity.

Table 16 concludes with NRP as yet another evidence of the post-9/11 federal path-dependent action, which impacted localities acceptance of the FHS priorities. A modification of the Federal Response Plan (FRP) of 1992, the program was originally a mechanism for coordinating federal assistance to state governments during catastrophic disasters that overwhelm state and local emergency response capabilities. The post-9/11 NRP is an attempt to establish a comprehensive all-hazards approach for enhancing the ability of the United States to manage domestic incidents. It incorporates best practices and procedures from incident management disciplines—homeland security, emergency
management, law enforcement, firefighting, public works, public health, responder and recovery worker health and safety, emergency medical services, and the private sector—and integrates them into a unified structure. It forms the basis of the federal government’s coordination with state, local, and tribal governments and the private sector during incidents by delineating 15 designated Emergency Support Functions (ESFs), each of which performs specific role in coordination with the single, overall plan.

The above-mentioned programs are only but a few examples of path-dependent actions that helped all three layers of the government in adopting the federal FHS priorities. Taking cues from the past to set the course for future by modifying previous undertakings helped all levels of governments at two fronts: first, it helped avoid the trial-and-error experimentation of new ventures and programs, which in turn saved significant amount of time, efforts and resources. Second, local and state government’s historic familiarity with the previously-employed concepts and relationships helped facilitate the quick adoption of the overall federal HS strategy.
<table>
<thead>
<tr>
<th>Historical Precedence/Actions</th>
<th>Post 9/11 Path-Dependent Modifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disaster Relief Act of 1974:</strong> the 1988 amended version called <strong>Stafford Act:</strong> is created by which a Presidential Disaster Declaration of an emergency triggers financial and physical assistance through FEMA. The Act gives FEMA the responsibility for coordinating relief efforts for state and local governments.</td>
<td><strong>Community Protection and Response Act of 2003 (CPR):</strong> An amendment to the <strong>Stafford Act,</strong> expands the definition of &quot;major disaster&quot; for the purpose of providing assistance to state and local governments in case of terrorist attacks, dispersions of radioactive or other contaminants, dispersion of hazardous substances, or other catastrophic events.</td>
</tr>
<tr>
<td><strong>FEMA (1979):</strong> Was created to oversee and coordinate federal disaster response and to provide assistance to state and local “first responders” (principally police, firefighters, and emergency medical treatment personnel) against the major natural and man-made disasters.</td>
<td><strong>FEMA (2003):</strong> As a reorganized agency under DHS, FEMA continues/expands its responsibility for coordinating the support provided by 23 federal agencies. FEMA also manages federal disaster aid and response for providing assistance to state and local “first responders” (primarily police, firefighters, and emergency medical treatment personnel) against the major natural and man-made disasters.</td>
</tr>
<tr>
<td><strong>NIMS (1980), the Incident Command Center,</strong> originally developed in California under the FIRESCOPE program, is transmitted into a national program called the National Interagency Incident Management System. At that time Incident Command System (ICS) became the backbone of a wider-based system for all federal agencies with wild-fire management responsibilities.</td>
<td><strong>Homeland Security Presidential Directive-5 (HSPD-2003):</strong> Effective FY 2005, NIMS becomes a standardized, national organizational structure as well as requirement. State and local governments are expected to comply with NIMS and incorporate ICS across their entire response system for command, control and communication capabilities including training.</td>
</tr>
<tr>
<td><strong>Federal Response Plan (FRP) of 1992:</strong> A mechanism for coordinating federal assistance to state governments when catastrophic disasters overwhelm state and local emergency response capabilities.</td>
<td><strong>HSPS-03</strong> also revamps FRP as the <strong>National Response Plan (NRP),</strong> which establishes a comprehensive all-hazards approach to enhance the ability of the U.S. to manage domestic incidents at the state and local levels. It supersedes the Initial National Response Plan, U.S. Government Interagency Domestic Terrorism Concept of Operations Plan, and Federal Radiological Emergency Response Plan.</td>
</tr>
</tbody>
</table>
**Bureaucratic Management**

Two inquiries frame the inquiry whether bureaucratic management concept provides a likely explanation of the acceptance of the new FHS priorities: (1) Whether the post-9/11 intergovernmental bureaucratic relationship among the layers of government resemble the pre-9/11 relationship; and, (2) Whether the federal government used legislative and budgetary tools to compel localities to follow the federal lead?

This study proposes that the post-9/11 federal strategy was an exercise of bureaucratic management and the federal actions were designed to persuade localities to follow federal priorities and guidelines.

The following key elements define the post-9/11 federal-state-local relationships, which continue to conform to bureaucratic management along the following principles:

1. Federal government takes the lead in administering funds and in-kind assistance to state and local governments to carry out the national mission.
2. Federal government controls and regulates local compliance for funding eligibility.
3. State governments exert their liaison role as clearinghouse for information, funding and standards.
4. Federal government manages and controls the national training programs for local and state systems.
5. Federal government conducts the research that includes needs and capabilities assessments of local and state systems.
Figure 4 provides an explanation of the bureaucratic management concept. Beginning with the federal government, it delineates the key elements which demonstrate bureaucratic actions at all three layers of the government: federal, state and local. Examples include designation of clear lines of authority and control (i.e., DHS) to command hierarchical oversight of state and local governments’ HS-related elements; state’s role as the clearinghouse, and localities’ role as the executors of the federal and state guidelines and recipients of grants-and-aid according to the federal eligibility criteria.

The evidence specified in these depictions provide support that (1) the post-9/11 intergovernmental bureaucratic relationships among the layers of government resemble the pre-9/11 relationship; and, (2) the state and local emergency management roles, as envisioned under the new HS, are similar and/or based upon the pre-9/11 role.

In conclusion, based on these facts, both path dependence and bureaucratic management appear to confirm their role in priming the local governments for ready acceptance of the federal HS priorities.
Federal Level
1. Designation of DHS as the central/lead HS agency for overall management and control
2. Clearly identified bureaucratic division of responsibilities and roles
3. Emphasis on intergovernmental communication
4. Leadership role and control through mandates and incentives
5. Division of labor according to expertise
6. DHS commanding oversight of state and local funding along pre-established eligibility criteria

State Level
1. A clearly-defined hierarchical role between the federal and local systems
2. A clearinghouse role for local levels regarding regulatory compliance, incentives/grants and aid
3. Dependent on DHS for funding and other forms of assistance

Local Level
1. Regulatory compliance with federal mandates
2. Dependent on federal government for funding and other forms of assistance
3. Dependent upon state government as a clearinghouse agent

Figure 4 - The Post-9/11 FHS Strategy and Path Dependence
Comparison of Virginia and California Survey Findings

Introduction

The 9/11 terrorist attacks imposed new realities on America’s local governments for the need to provide for local homeland security. The new tasks involved recognition of primary risks and threats; vulnerability assessments of buildings, infrastructures and transportation hubs; preparedness and planning; citizens’ awareness and participation in community efforts to safeguard local security; intergovernmental coordination and cooperation to maximize resources; and finding additional resources to provide for the additional expenses.

In July and August 2002, the National League of Cities (NLC), through Public Policy Institute of California (PPIC), directly mailed and/or faxed the questionnaire to 478 cities. A total of 317 completed surveys were received, constituting a 66% response rate. The California survey offers a “snapshot in time” glimpse of the local governments’ understanding of the new realities and their response to the still-evolving federal priorities.

The Virginia survey was a replication of the California survey and was implemented with PPIC officials’ written permission. In November 2004, a total of 141 questionnaires were mailed directly to Virginia’s local emergency coordinators in 95

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10 In December 2002, authors Mark Baldassare and Dr. Christopher Hoene reported California survey’s findings in “Coping with Homeland Security: Perceptions of City Officials in California and the United States,” published by the Public Policy Institute of California.
counties, 40 cities and 6 towns. Receipt of 84 completed responses constitutes a 60% participation rate.

A comparison of California and Virginia practitioners provides information regarding the following questions:

1. What are the specific concerns of practitioners regarding the threats of terrorist attacks and how do concerns about terrorism compare with other local issues?
2. What types of terrorist threats are addressed in local planning efforts, and what are the obvious gaps in preparedness, given the perceived threats?
3. How much collaboration do practitioners think there is within their agencies and other entities?
4. How significant are the economic and fiscal implications of homeland security efforts, and do practitioners believe that voters support higher taxes for this purpose?
5. What do practitioners consider to be their highest priorities for receiving support from federal government?

**Risk and Vulnerability Assessment**

In spite of a two-year gap between the two surveys, the findings exhibit a comparable pattern for all categories except one, ‘airplane used as bomb.’ The top three concerns for both states are the same: threats of cyber, biological and chemical terrorism. Topping the list at 40% for California is cyber terrorism, which, even after a two-year
gap is perceived as the primary concern by 30% of Virginia officials. California shows biological terrorism as its second highest concern at 38%, while 25% of Virginia practitioners perceive biological, chemical and car-bomb as their second highest concern.

An exception to this otherwise consistent pattern is the category of ‘airplane used as a bomb.’ Overall, 26% of California officials perceived it as a threat in 2002 as compared to Virginia’s at 13%. Although a two-year lapse between the two surveys may justify the difference, considering that Virginia was a site of just such a terrorist attack, this difference is peculiar. On the other hand, the finding may be indicative of two factors: as we move away from 9/11, the memories of the terrorist attacks are fading, or, the practitioners have increased their confidence in the homeland security system. In fact, except for the threat category ‘individual suicide attacks,’ (25% for California, 26% for Virginia), the remaining eight other threat categories consistently exhibit a reduction in the perceived concerns.

Table 1
“How concerned are you about the threat of terrorist attacks in your locality over the next year?” (% responding “very” or “moderately” concerned)

<table>
<thead>
<tr>
<th>Terrorism Threat Category</th>
<th>CA 2002</th>
<th>VA 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyber Terrorism</td>
<td>40%</td>
<td>30%</td>
</tr>
<tr>
<td>Biological</td>
<td>38</td>
<td>25</td>
</tr>
<tr>
<td>Chemical</td>
<td>35</td>
<td>25</td>
</tr>
<tr>
<td>Car bomb</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>Combination/dirty bomb</td>
<td>27</td>
<td>18</td>
</tr>
<tr>
<td>Airplane used as bomb</td>
<td>26</td>
<td>13</td>
</tr>
<tr>
<td>Individual suicide attack</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>Radiological</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>Nuclear</td>
<td>17</td>
<td>14</td>
</tr>
</tbody>
</table>
Finally, both states’ officials perceive nuclear concerns as the least worrisome threat since 21% of California and 17% Virginia officials perceive it as the least likely threat.

**Homeland Security in Context**

When placed among the context of overall issues facing local governments, concern for terrorism for both states drops to the fifth place, at 40% for California and 30% for Virginia. With exception of one category—natural disasters—both states show a similarity of pattern for all seven categories of local issues. Of the three top priorities, crime remains a critically high concern for both states’ officials at 78% for California and
73% for Virginia. For the category ‘loss of business,’ the marked difference for both states’ third highest priority—56% for California and 44% for Virginia—may be reflective of the 2002 national downturn in economy, which had subsided by 2004. Virginia’s highest concern for natural disasters (85%) can be explained by the fact that the survey was administered to the state’s practitioners at the end of one of the worst turbulent season, which may have contributed to a simple fact. Based on weather service records, the summer of 2004 was documented as the state’s worst turbulent season in recorded history. In comparison, almost two-thirds (63%) of California officials expressed concern against natural disaster, which is also significant but understandable because of California’s vulnerability to earthquakes, floods and fires.

When asked for three top priorities, public safety/crime again tops the list of concerns for both states’ officials, followed by the concern for economic conditions. Also, while Virginia lists terrorism as its third highest priority (37%), California officials hold improvement of infrastructure a higher concern (38%) than terrorism (25%).

11 The Virginia Department of Emergency Management reported that 75% of the state's 2004 tornadoes were associated with the remnants of hurricanes Gaston, Ivan and Jeanne, according to the National Weather Service in Wakefield. In fact, Virginia had undergone two consecutive turbulent seasons during 2003 and 2004, with 2004 surpassing the previous year’s record for the similar types of natural turbulence. During 2004, four to six times the normal number tropical storms hit the state than any other year. A record 86 tornado touch-downs were noted in 52 localities. Records also showed that Virginia was struck by the seventh largest number of tornadoes of any state in 2004. Seven tropical hurricanes: Alex, Bonnie, Charley, Frances, Gaston, Ivan and Jeanne, affected Virginia during the 2004 hurricane season.
Table 2
“How concerned are you about...?”
(% responding “very” or “moderately” concerned)

<table>
<thead>
<tr>
<th></th>
<th>CA 2002</th>
<th>VA 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Safety and Crime</td>
<td>78</td>
<td>73</td>
</tr>
<tr>
<td>Natural disasters</td>
<td>63</td>
<td>85</td>
</tr>
<tr>
<td>Loss of business</td>
<td>56</td>
<td>44</td>
</tr>
<tr>
<td>Unemployment</td>
<td>54</td>
<td>52</td>
</tr>
<tr>
<td>Cyber terrorism</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>Biological attacks</td>
<td>38</td>
<td>25</td>
</tr>
<tr>
<td>Chemical attacks</td>
<td>35</td>
<td>25</td>
</tr>
</tbody>
</table>

Graph 2
Comparison of Overall Concerns (in %)
Table 3
“Which three issues are currently most important to address in your locality?”
( % responding “very” or moderately” concerned)

<table>
<thead>
<tr>
<th></th>
<th>CA 2002</th>
<th>VA 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public safety and crime</td>
<td>64</td>
<td>68</td>
</tr>
<tr>
<td>Economic conditions</td>
<td>47</td>
<td>49</td>
</tr>
<tr>
<td>Infrastructure investment</td>
<td>38</td>
<td>36</td>
</tr>
<tr>
<td>Terrorism</td>
<td>25</td>
<td>37</td>
</tr>
</tbody>
</table>

Graph 3
Localities’ Top Priorities

Emergency Planning and Preparedness
As shown in Table 8, the primary pattern for both states display that in spite of relatively lower concerns for terrorism threats, both California and Virginia have
executed planning efforts that far exceed the concerns. In California, in spite of 38% of the officials expressing concerns for biological attacks, 63% officials report planning efforts against the same. In Virginia, only 25% of the officials perceive biological and chemical attacks as potential threats; however, 83% report planning toward these threats. California’s relatively lower degree of preparation for terrorism attacks may be based on the fact that the survey was conducted less than a year after the terrorist attacks. Also, California has had a history of emergency management primarily against natural disasters, which may take precedence over terrorist threats.

On the other hand, Virginia’s consistently high findings may indicate that by November 2004, localities had begun responding to the federally-imposed mandate regarding modification of the Local Emergency Plans to incorporate terrorism-related threats. 12 This suggests local governments’ acceptance of the FHS strategy’s priorities, an important conclusion.

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12 In November 2004, the author was employed to modify the City of Richmond’s Emergency Operations Plan along the federal criteria of Emergency Support Functions. The author was also a team member to revise the regional All Hazards Mitigation Plan. Beginning November 1, 2004, both mandates were established as a prerequisite for localities’ eligibility toward any federal funding assistance, even on a competition basis.
Table 4
Comparison of responses to “How Concerned are you about the threat of terrorist attacks in your city over the next year” and “what types of terrorist attacks are addressed in your local planning efforts?” (% responding “very” or “moderately concerned”)

<table>
<thead>
<tr>
<th></th>
<th>2002 CA Concerns</th>
<th>2002 CA Planning</th>
<th>2004 VA Concerns</th>
<th>2004 VA Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio-hazards</td>
<td>38</td>
<td>63</td>
<td>25</td>
<td>83</td>
</tr>
<tr>
<td>Chemical</td>
<td>35</td>
<td>58</td>
<td>25</td>
<td>83</td>
</tr>
<tr>
<td>Radiological</td>
<td>21</td>
<td>36</td>
<td>17</td>
<td>74</td>
</tr>
<tr>
<td>Nuclear</td>
<td>17</td>
<td>36</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>Airplane as bomb</td>
<td>26</td>
<td>48</td>
<td>13</td>
<td>55</td>
</tr>
<tr>
<td>Car/truck bomb</td>
<td>27</td>
<td>36</td>
<td>25</td>
<td>52</td>
</tr>
<tr>
<td>Dirty bomb</td>
<td>26</td>
<td>26</td>
<td>18</td>
<td>37</td>
</tr>
<tr>
<td>Cyber terrorism</td>
<td>40</td>
<td>22</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>Suicide attack</td>
<td>21</td>
<td>36</td>
<td>26</td>
<td>32</td>
</tr>
</tbody>
</table>

Graph 4

[Bar graph showing comparisons between concerns and planning efforts for different types of terrorist attacks in 2002 CA and 2004 VA.]
**Vulnerability Assessment**

As part of the localities’ effort to refine their emergency plans, a key task is to identify facilities and infrastructure that may be potential targets of terrorist attacks. Sources of local water supplies are perceived to be the greatest target in both states, at 81% in California and 79% in Virginia. The pattern of perceptions for both states is found to be consistent for the subsequent five vulnerabilities: government buildings, transportation, schools/universities, information technology, and hospital and medical facilities, with Virginia officials exhibiting significantly higher levels of concern for all twelve categories, as shown in Table 7.

Virginia officials’ greater concerns toward four other vulnerabilities may be reflective of its proximity to the nation’s capital. For example, with 112 miles of coastline (3,315 miles of shoreline), Virginia accommodates the world’s largest naval military base. Over 50 percent of the nation’s Internet activity is routed through Virginia. It is home to numerous strategic military installations, four nuclear power plants, major airport facilities, universities and a Federal Reserve regional branch, all of which increase its vulnerability to future terrorist attacks.
### Table 5

“What facilities and infrastructure need to be secured and protected in your locality?”

<table>
<thead>
<tr>
<th>Vulnerability</th>
<th>CA 02</th>
<th>VA 04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water supply</td>
<td>81</td>
<td>79</td>
</tr>
<tr>
<td>Government buildings</td>
<td>73</td>
<td>92</td>
</tr>
<tr>
<td>Transportation</td>
<td>63</td>
<td>88</td>
</tr>
<tr>
<td>Schools/universities</td>
<td>60</td>
<td>88</td>
</tr>
<tr>
<td>Info Technology</td>
<td>50</td>
<td>83</td>
</tr>
<tr>
<td>Hospital/med facilities</td>
<td>48</td>
<td>83</td>
</tr>
<tr>
<td>Hi-rises/monuments</td>
<td>16</td>
<td>79</td>
</tr>
<tr>
<td>Non-military/federal</td>
<td>11</td>
<td>58</td>
</tr>
<tr>
<td>Ports/entry points</td>
<td>17</td>
<td>54</td>
</tr>
<tr>
<td>Military facilities</td>
<td>9</td>
<td>54</td>
</tr>
<tr>
<td>Power plants</td>
<td>16</td>
<td>50</td>
</tr>
<tr>
<td>Stadiums/arenas</td>
<td>15</td>
<td>50</td>
</tr>
</tbody>
</table>

### Graph 5

Facilities and Infrastructure Need to be Secured (in %)
Intergovernmental Coordination

Most localities report an increase in coordination across all levels of government since the 9/11 attacks. However, Virginia shows greater increase (92%) than California’s (56%). The difference may be due to the fact that the terrorist attacks on Pentagon necessitated greater interaction between the two layers of the government by default. Additionally, with the establishment of the DHS in 2003, the federal government has undertaken numerous intergovernmental efforts to implement the post-9/11 strategy. These efforts include mandates and incentives, such as the development of local emergency response plans (the 15 emergency support functions or ESFs), tabletop exercises, training, technical assistance and grants.

Table 6
“Since September 11, how much has your locality increased its coordination with the following...?” (% responding “a fair amount”, “a good amount” and “a great deal”)

<table>
<thead>
<tr>
<th></th>
<th>CA 2002</th>
<th>VA 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other cities</td>
<td>77</td>
<td>86</td>
</tr>
<tr>
<td>Other Counties</td>
<td>77</td>
<td>96</td>
</tr>
<tr>
<td>State</td>
<td>70</td>
<td>95</td>
</tr>
<tr>
<td>Federal</td>
<td>56</td>
<td>92</td>
</tr>
</tbody>
</table>
**Fiscal Impact**

When reporting the fiscal impact of 9/11 on local fiscal ability, while the pattern between the two states continues to be consistent, Virginia officials perceive a significantly greater degree of spending (61%) than their California (39%) counterparts. Almost one-third of California officials believe a reduced capability to meet local financial needs while a little over one-fifth of Virginia officials perceive the same impact. Similarly, a greater number (75%) of Virginia officials believe future spending to increase than their California officials (43%). Considering that California perceptions were being recorded within a year of the terrorist attacks this difference is peculiar. On the other hand, Virginia’s officials may perceive being less insular from fiscal impacts than California’s.
Table 7
“What was the impact of September 11 on your local government’s ability to meet its financial needs...its spending on public safety and security...its spending on safety and security in the future?” (in %)

<table>
<thead>
<tr>
<th></th>
<th>CA 2002</th>
<th>VA 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less able to meet local financial needs since 9/11</td>
<td>31</td>
<td>21</td>
</tr>
<tr>
<td>Increased sending on public safety since 9/11</td>
<td>39</td>
<td>61</td>
</tr>
<tr>
<td>Future increased spending on public safety</td>
<td>43</td>
<td>75</td>
</tr>
</tbody>
</table>

Graph 7
Fiscal Impact of 9/11 on Local Spending (in %)

Citizen Participation and Support
Both states’ officials perceive increased fiscal stress for homeland security-related expenditures, and are not optimistic about public support for additional local taxes and/or fees to support homeland security efforts. Two in three California officials find it
unlikely that their residents would support tax increases, compared to three out of four officials in Virginia.

Table 8
“What is the likelihood that your residents would support additional local taxes for homeland security?” (in %)

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>CA 2002</th>
<th>VA 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlikely</td>
<td>42</td>
<td>33</td>
</tr>
<tr>
<td>Don’t know</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td>Very likely</td>
<td>22</td>
<td>13</td>
</tr>
<tr>
<td>Likely</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Very likely</td>
<td>2</td>
<td>13</td>
</tr>
</tbody>
</table>

Graph 8
Likelihood of Support for Additional Taxes for Homeland Security (in %)
Local Priorities for Federal Support

Fiscal stress and a perceived lack of citizen support for additional taxes suggest increased need for federal funding and other support, which was found to be the case for both states. However, the perceived preferences among the two states’ officials vary significantly, as displayed in Table 13. For Virginia, 80% of the officials perceive a priority for personnel and overtime pay, followed by the need of equipment and apparel at 75%. California officials’ prefer threat prevention and detection as the top priority (65%) followed by equipment and apparel at 63%. Regional coordination was perceived as the least likely concern at 23% for California and 13% for Virginia.

Table 9
“What should be the highest priorities for future federal and state funding to support homeland security?” (in %)

<table>
<thead>
<tr>
<th></th>
<th>CA 2002</th>
<th>VA 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat prevention</td>
<td>65</td>
<td>33</td>
</tr>
<tr>
<td>Equip &amp; apparel</td>
<td>63</td>
<td>75</td>
</tr>
<tr>
<td>Training personnel</td>
<td>53</td>
<td>54</td>
</tr>
<tr>
<td>Protecting infrastructure</td>
<td>54</td>
<td>33</td>
</tr>
<tr>
<td>Preparedness/TA</td>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td>Personnel &amp; OT</td>
<td>30</td>
<td>79</td>
</tr>
<tr>
<td>Regional coordination</td>
<td>23</td>
<td>13</td>
</tr>
</tbody>
</table>
Table 10

Outside of funding, in what areas could the federal and state govs focus other types of assistance?” (in %)

<table>
<thead>
<tr>
<th></th>
<th>CA 2002 Other Assistance</th>
<th>VA 2004 Other Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional coordination</td>
<td>52</td>
<td>13</td>
</tr>
<tr>
<td>Personnel &amp; OT</td>
<td>51</td>
<td>17</td>
</tr>
<tr>
<td>Protecting infrastructure</td>
<td>44</td>
<td>38</td>
</tr>
<tr>
<td>Preparedness/TA</td>
<td>35</td>
<td>58</td>
</tr>
<tr>
<td>Threat prevention</td>
<td>35</td>
<td>54</td>
</tr>
<tr>
<td>Training personnel</td>
<td>23</td>
<td>42</td>
</tr>
<tr>
<td>Equip &amp; apparel</td>
<td>21</td>
<td>13</td>
</tr>
</tbody>
</table>
Conclusion

The survey of Virginia emergency management officials reveals a rather smooth transmission and acceptance of the federal HS priorities. Population size is found to be an influencing factor in localities’ acceptance of the federal HS priorities; larger localities are more in tune with the overall federal HS strategy.

Review of path dependence and bureaucratic management concepts reveals their explanatory role in localities’ acceptance of the federal HS priorities as well. The evolution of federal-local relationships suggests virtually a totally path-dependent bearing. Similarly, federal actions designed to persuade the localities to federal priorities and guidelines lead to bureaucratic management structure for facilitating the acceptance.
Comparison between Virginia and California suggest a remarkable pattern of similarities between these two states in spite of a two-year gap between the two surveys. Cyber-terrorism tops the list of potential terrorist threats in both states. Among other issues, crime prevention ranks the list of issues of local concern. Both states show a remarkably high planning and preparedness efforts in spite of a relatively lower concern for terrorism threats. Fiscal stress and a perceived lack of citizen support for additional taxes suggest increased need for federal funding and other support in both states.

Among primary differences, Virginia ranks higher overall in intergovernmental coordination and collaboration than California. However, given that Virginia was actually a site of the terrorist attack, the finding is consistent. Virginia officials also perceive a significantly greater spending regarding HS-related protection for localities.

**Future Implications and Recommendations**

While the California survey instrument is excellent in gauging the concerns, preparedness and needs of local governments, additional questions are needed to adequately measure the acceptance of the federal HS priorities. As an example, a question to local practitioners could ask if they were required to adhere to the federal mandates. During this research, the lack of academic studies regarding the still-evolving HS phenomenon was glaringly noticeable.

The federal HS priorities’ acceptance by local practitioners does not equate the programmatic or systematic success. In the aftermath of the terrorist attacks perhaps the prevailing environment; i.e., a unified national stance for security and preservation of the
homeland and the overriding priority of dealing with terrorism helped affect the FHS strategy/priorities’ swift acceptance. However, as various responses to the terrorist attacks are being developed, homeland security is beginning to shift from its symbolic status to that of a policy concept. Judging from vulnerabilities exposed by Hurricane Katrina in New Orleans, the federal shift in priorities surfaces a wide range of complex issues. The following recommendations are proposed.

(1) An assessment of the risks and the degree to which homeland security is vulnerable.

(2) An assessment of DHS priorities regarding preparedness, prevention, response, and recovery against major man- or nature-made disasters.

(3) An assessment of the federal resources’ use.

(4) An assessment of the homeland security-related organizational and management structures at various levels of government to determine whether their delivery matches the needs.
APPENDIX A – COVER LETTER FOR THE SURVEY

(VCU LETTERHEAD)

November 1, 2004

(Address of the Recipient)

As a local emergency coordinator, you are being asked to participate in a research study designed to gauge the perceptions of Virginia public officials about homeland security and to determine how officials are coping with these new responsibilities.

Since September 11, 2001, numerous issues have surfaced regarding the detection, preparedness, prevention and protection against terrorist attacks, as well as how to fund these homeland security activities. In Virginia, localities have taken steps to develop local emergency management/operations plans to ensure a comprehensive, efficient and effective response strategy to emergencies and disasters.

You have first-hand knowledge for your locality’s homeland security requirements. A similar survey was conducted nationwide in August 2002 by the Public Policy Institute of California. This survey will update those results and relate them specifically to Virginia. Your participation is voluntary and your individual responses to the survey questions will not be disclosed to anyone outside the research project. The number at the top of the survey will allow us to record your participation so that we will not need to contact you again.

The knowledge gained through this survey will provide a comprehensive understanding of your concerns, priorities and experiences with homeland security. If you wish to receive the results of this study, please mail separately, the enclosed postcard with your name and address.

If you have any questions about the survey, please feel free to contact me at (804) 646-5276 or my co-investigator, Dr. Janet Hutchinson, VCU, at (804) 827-1275. Thank you in advance for your participation.

Yours truly,

________________________
Chaya R. Jain, M.A., M.U.R.P.
Center for Public Policy
Virginia Commonwealth University

Enclosures
APPENDIX B - VIRGINIA LOCALITIES SURVEY - 2004

Your Jurisdiction Designation:  __ City  __ County  __ Town  
Status:  __ Rural  __ Urban  Current Estimated Population:  

1. How concerned are you about the following possibilities over the next year in your locality? (please check one in each row)

<table>
<thead>
<tr>
<th>Possibility</th>
<th>Very</th>
<th>Moderately</th>
<th>Mildly</th>
<th>Not Very</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Threat of terrorist attack</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Car or truck bomb</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Biohazard/biological</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Chemical</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Nuclear</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Radiological</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Combination (Dirty bomb)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Cyber-terrorism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Individual/suicide attack</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Airplane used as bomb</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Traditional crime</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Job layoffs and unemployment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Business shutdown/decline</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Natural disaster</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Acts of discriminate crime</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Loss of public confidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Of the issues listed below, which three are currently most important in addressing your locality and which will be the most important to address over the next two years? (please check top three only in each column):

<table>
<thead>
<tr>
<th>Issue</th>
<th>Currently</th>
<th>Next 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Investing in terror prevention, preparedness and training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Investing in general public safety and crime prevention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Improving economic conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Increasing the availability of affordable housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Revitalizing and redeveloping neighborhoods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Supporting local and regional development strategies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Investing in infrastructure (road/transit/water/sewer)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Investing in public education and other supports for children, youth and families</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
i. Protecting natural resources and local environmental quality

j. Cost and availability of health services

k. Local relations with the community

l. Relationship with state and federal governments

3. Has your local government integrated the national Homeland Security Advisory System (the color-coded system) into its planning efforts? (ps. check one)

   a. Yes
   b. No
   c. We are working on it
   d. Don’t know

1. What types of terrorist attacks are addresses in your local government’s planning efforts? (check all that apply)

   a. Car or truck bomb
   b. Biohazard/biological
   c. Chemical
   d. Nuclear
   e. Radiological
   f. Combination (dirty bomb)
   g. Cyber-terrorism
   h. Individual/suicide attack
   i. Airplane crash

5. What facilities and infrastructure need to be secured and protected in your locality or nearby in the surrounding area? (ps. check all that apply in both columns)

   a. Water supplies
   b. Ports or entry points (airports, harbors)
   c. Transportation infrastructure (roads, bridges, rail lines, tunnels)
   d. Military facilities
   e. Other federal facilities (buildings, nuclear plants, research labs)
   f. Schools/universities
   g. International borders
   h. Government buildings (city, county, state or federal)
   i. Stadiums, arenas, and convention centers
   j. Other large buildings (high-rises, landmarks, monuments)
   k. Communications and technology infrastructure
   l. Power plants
   m. Hospitals/medical facilities
6. Have Homeland Security concerns begun to effect and change local government activities in areas other than security planning (such as, for example, economic development)? (ps. check one)
   a. Yes ___
   b. No ___
   c. Don’t know ___

7. How would you rate the extent of collaboration and coordination across levels of government, agencies, and other organizations in your region? (ps. check one)
   a. Very low ___
   b. Low ___
   c. Moderate ___
   d. High ___
   e. Very high ___
   f. Don’t know ___

8. How would you rate the extent of coordination and collaboration among local departments and agencies in your local government? (ps. check one)
   a. Very low ___
   b. Low ___
   c. Moderate ___
   d. High ___
   e. Very high ___
   f. Don’t know ___

9. How would you rate the efforts to coordinate and collaborate by each of the following levels of government, agencies, and other organizations in your region? (ps. check one per row)

<table>
<thead>
<tr>
<th>Very low</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Very high</th>
<th>Don’t know</th>
</tr>
</thead>
</table>
   a. City governments |       |       |        |       |           |
   b. County governments |       |       |        |       |           |
   c. State government |       |       |        |       |           |
   d. Federal Government |       |       |        |       |           |
   e. MPO/COGs |       |       |        |       |           |
   f. Nonprofits |       |       |        |       |           |
   g. Private sect/business |       |       |        |       |           |
   h. Neighborhoods |       |       |        |       |           |
   i. Civic groups |       |       |        |       |           |
   j. Media |       |       |        |       |           |
10. Since September 11, 2001 how much has your local government increased its coordination with the following? *(check one per row)*

<table>
<thead>
<tr>
<th></th>
<th>A Great Deal</th>
<th>A Good Amt</th>
<th>Fair</th>
<th>Not at all</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Other cities</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>b. Other counties</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>c. State government</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>d. Federal government</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>e. MPOs/COGs</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>f. Nonprofits</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>g. Business/private sector</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>h. Neighborhoods</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>i. Civic groups</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>j. Media</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

11. For your locality, what is the likelihood of increased collaboration and coordination across levels of government, agencies, and other organizations in the following activities? *(check one per row)*

<table>
<thead>
<tr>
<th></th>
<th>Very Likely</th>
<th>Likely</th>
<th>Unlikely</th>
<th>Very Unlikely</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Evacuation</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>b. Transpo routing</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>c. Health facilities</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>d. Commun capacity</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>e. Tech systems</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>f. Protect infrastr</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>g. Work w/media</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>h. Public info efforts</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

12. Does your local government have a formal plan for informing the public and disseminating information in future emergencies?

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Yes</td>
<td>___</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. No</td>
<td>___</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. A strategy is being developed</td>
<td>___</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Don’t know</td>
<td>___</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. To what level are local residents involved in the *discussions* about homeland security?

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>a. A great Deal</td>
<td>___</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. A good amount</td>
<td>___</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Only a fair amount</td>
<td>___</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Not at all</td>
<td>___</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Don’t know</td>
<td>___</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
14. To what level are local residents involved in the **decisions** about homeland security?

- a. A great Deal
- b. A good amount
- c. Only a fair amount
- d. Not at all
- e. Don’t know

15. Since September 11, 2001, has there been a change in the level of public concern expressed about any of the following?

<table>
<thead>
<tr>
<th></th>
<th>Increased Concern</th>
<th>Decreased Concern</th>
<th>No Change</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Infringing upon civil liberties</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Racial and ethnic profiling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Tension among racial/ethnic grps</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. What was the impact of September 11, 2001 on your local government’s ability to meet its financial needs?

- a. Less able
- b. Better able
- c. Little or no change
- d. Don’t know

17. What was the impact of September 11, 2001 on local govt spending on public safety and security?

- a. Significantly increased
- b. Increased
- c. Little or no change
- d. Decreased
- e. Don’t know

18. Compared to public safety and security spending prior to September 11, 2001, what will be the impact of 9/11 attacks on local spending on public safety and security in the future?

- a. Significant increase
- b. Increase
- c. Little or no change
- d. Decrease
- e. Don’t know
19. What is the likelihood that your locality’s residents would support additional local taxes for homeland security?

a. Very likely  
   ______

b. Likely  
   ______

c. Unlikely  
   ______

d. Very unlikely  
   ______

e. Don’t know  
   ______

20. Where should be the highest priorities for future federal and state funding to support local homeland security? Outside of funding, in what areas should the federal government focus other types of assistance? (ps. check **only top three** in each column).

<table>
<thead>
<tr>
<th></th>
<th>Funding</th>
<th>Other Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Threat prevention and attention</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>b. Emergency equipment and apparel</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>e. Protecting infrastructure</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>f. Training for local emergency response personnel</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>g. Technical assistance on local preparedness planning</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>h. Personnel support (additional personnel and OT)</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>i. Coordinating region-wide efforts</td>
<td>______</td>
<td>______</td>
</tr>
</tbody>
</table>

i. Where should be the highest priorities for future state funding to support local homeland security? Outside of funding, in what areas should the state government focus other types of assistance? (ps. check **only top three** in each column).

<table>
<thead>
<tr>
<th></th>
<th>Funding</th>
<th>Other Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Threat prevention and attention</td>
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<td>b. Emergency equipment and apparel</td>
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<tr>
<td>c. Protecting infrastructure</td>
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<td>______</td>
</tr>
<tr>
<td>d. Training for local emergency response personnel</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>e. Technical assistance on local preparedness planning</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>f. Personnel support (additional personnel and OT)</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>g. Coordinating region-wide efforts</td>
<td>______</td>
<td>______</td>
</tr>
</tbody>
</table>

a. We would like to hear from you about the specific needs of your locality. Please attach additional information here:

________________________________________________________________________
________________________________________________________________________

**Would you like a copy of this survey’s results?**  
Yes [ ]  
No [ ]

**THANK YOU!**
APPENDIX C – VIRGINIA COUNTIES, CITIES AND TOWNS

<table>
<thead>
<tr>
<th>Region I</th>
<th>Region II</th>
<th>Region III</th>
<th>Region IV</th>
</tr>
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<tbody>
<tr>
<td>Amelia County</td>
<td>Caroline County</td>
<td>Albemarle County</td>
<td>Bland County</td>
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<tr>
<td>Brunswick County</td>
<td>Clarke County</td>
<td>Amherst County</td>
<td>Bristol City</td>
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<tr>
<td>Charles City</td>
<td>Culpeper County</td>
<td>Appomattox County</td>
<td>Buchanan County</td>
</tr>
<tr>
<td>County</td>
<td>Fauquier County</td>
<td>Augusta County</td>
<td>Carroll County</td>
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<tr>
<td>Chesterfield County</td>
<td>Frederick County</td>
<td>Buckingham County</td>
<td>Dickenson County</td>
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<tr>
<td>Colonial Heights City</td>
<td>Fredericksburg City</td>
<td>Campbell County</td>
<td>Galax City</td>
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<td>Dinwiddie County</td>
<td>Greene County</td>
<td>Charlotte County</td>
<td>Giles County</td>
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<td>Emporia City</td>
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<td>Essex County</td>
<td>Louisa County</td>
<td>Cumberland County</td>
<td>Lee County</td>
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<tr>
<td>Goochland County</td>
<td>Town of Luray</td>
<td>Fluvanna County</td>
<td>Norton County</td>
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<tr>
<td>Greensville County</td>
<td>Madison County</td>
<td>Halifax County</td>
<td>Pulaski County</td>
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<td>Hanover County</td>
<td>Orange County</td>
<td>Harrisonburg City</td>
<td>Radford City</td>
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<td>Page County</td>
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<td>Hopewell City</td>
<td>Rappahannock Co.</td>
<td>Lynchburg City</td>
<td>Scott County</td>
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<td>King &amp; Queen Co.</td>
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<td>Mecklenburg County</td>
<td>Smyth County</td>
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<td>King William Co.</td>
<td>Spotsylvania Co.</td>
<td>Nelson County</td>
<td>Tazewell County</td>
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<tr>
<td>New Kent County</td>
<td>Warren County</td>
<td>Prince Edward Co.</td>
<td>Washington Co.</td>
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<td>Prince George Co.</td>
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<td>Richmond City</td>
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<td>Town of S. Boston</td>
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<tr>
<td>Sussex County</td>
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## APPENDIX C – VIRGINIA COUNTIES, CITIES AND TOWNS (CONT.)

<table>
<thead>
<tr>
<th>Region V</th>
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<th>Region VII</th>
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<tr>
<td>Accomack County</td>
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<td>Covington City</td>
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<td>Craig County</td>
<td>Manassas City</td>
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<td>Danville City</td>
<td>Manassas Park City</td>
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<td>Floyd County</td>
<td>Prince William</td>
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<tr>
<td>Middlesex County</td>
<td>Franklin County</td>
<td>County</td>
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<td>Newport News City</td>
<td>Henry County</td>
<td>Stafford County</td>
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<td>Chincoteague</td>
<td>Gorge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Town of Vinton</td>
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</tr>
</tbody>
</table>
OVERVIEW

Survey Response by Region

1- East Central 18%
2- North Central 11%
3- Central 17%
4- Southwest 10%
5- Central Area 20%
6- Western 18%
7- Northern 7%
BIBLIOGRAPHY


DeCorla-Souza, P. (2002). The Long-Term Value of Value Pricing in Metropolitan Areas Ideas in Motion. Transportation Quarterly, 56(3).


http://www.york.ac.uk/management/research/working_paper_series/working%20paper%203.pdf


VITA

Chaya R. Jain was born in India on October 12, 1949 and has been a naturalized United States citizen since 1976. After completing Bachelor of Arts in 1967 from M.L.B. Girls College in Bhopal, she completed her Master of Arts from Vikram University, Ujjain City, India in 1969 with top merit honors. After moving to Richmond from New Delhi in 1969, she earned Master of Urban and Regional Planning from Virginia Commonwealth University in 1978. A member of the American Society for Public Administration since 1979, she has been invited to present papers in its national conferences in 2004 and 2005. She has held several professional positions with the state of Virginia and is currently employed at the City of Richmond. She is an adjunct faculty at Averett University since April 1999.