ATTITUDES AND PERCEPTIONS OF TEXAS PUBLIC SAFETY TRAINING OFFICERS REGARDING THE EFFECTIVENESS OF THE NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS)

A Thesis

by

JASON O'LANDO WILSON

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

December 2009

Major Subject: Agriculture Leadership, Education, and Communications

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Approved by:

Chair of Committee,	Timothy H. Murphy
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ABSTRACT

Attitudes and Perceptions of Texas Public Safety Training Officers Regarding the Effectiveness of the National Incident Management System (NIMS). (December 2009)

Jason O'Lando Wilson, B.B.A., Tarleton State University

Chair of Advisory Committee: Dr. Timothy H. Murphy

This thesis sought to understand reasons for noncompliant respondents and ineffective leadership in the National Incident Management System (NIMS) by Texas public safety training officers. Research has been conducted on the policies and their implications for NIMS, organizational culture and its impact on NIMS, and the hierarchy network of the Incident Command System (ICS). However, research evaluating the attitudes and perceptions regarding the effectiveness of NIMS is scarce. Training officers from rural fire departments, emergency medical services, and law enforcement agencies were the population for this study (n=33). The results of this study have implications for combined fire department, emergency medical services, and law enforcement training (interoperability), simplification of the management structure, and a mentoring program. This study should be explored further in an urban setting, based on this model.

This study showed that respondents agreed that rural emergency responders tend to be noncompliant with NIMS. Respondents mentioned that rural emergency responders disagree with the effectiveness of NIMS. This study showed that a correlation occurred

between the effectiveness of NIMS and the number of times a respondent was involved in a formal NIMS incident command.

The following recommendations were made based on the findings and conclusions of this study. Researchers should continue to look at what public safety training officers believe affects the adaptability of NIMS. Training officers should consider contributing to the future NIMS curriculum. Training officers should focus on interoperability issues through increased field exercises. Research should be conducted to determine what improvements to curriculum effect future NIMS compliance. Further research should be conducted on the effectiveness of individual compliance, and achievement.

DEDICATION

To my parents, Jim and Cathy Wilson;

my younger sister, Jerene Sue Wilson Faulkner;

and my grandparents, Charles (Bus) and Doris Lamb, and Jonah and Lear Wilson.

You taught me that I am capable of more than I know. You told me to choose a goal that seems right for me and to strive to be the best however hard the path. You told me to aim high and behave honorably. Prepare to be alone at times, and to endure failure. Persist! The world needs all you can give!

Thank you for believing in me, even when I could not believe in myself, and for always encouraging me to be and do more than I could imagine. You have not always understood my crazy dreams, but you have loved and supported me whatever path I chose.

I am one lucky son, brother, and grandson.

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For each person listed here, a simple thank you will never be enough; you have all had such a huge impact on my life. I will never be able to thank you for all that you have done and for all that you will continue to do.

First, I thank God for the abilities and talents that he has given me. I know that without him, I am nothing.

Dr. Kim Dooley, my friend and mentor, you believed in me from the first time I walked into your office to the day I graduated. Thank you Dr. Dooley, I would not be an Aggie without you.

Thank you to my graduate committee. Without your support, friendship, honesty, and guidance through this journey, I would have never received the satisfaction gained from this entire process. Dr. Murphy, thank you for picking me. I cannot tell you how much your idea about co-curriculum broadens my horizon. Your undying support has never wavered throughout my graduate studies. Dr. Starr, from the first time you wrote "Pooh" on my thesis proposal, to the "Good Job" you wrote on my thesis draft; I am a better writer. Dr. Lindner, thank you for the runs, statistical help, instrument development, and good times we have had along the way. Dr. McIntyre, thank you for taking a chance on a graduate student whom you did not even know. It has truly been an honor to work with you.

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Darby Johnson, Misty Wilburn, Lexi Weid, John Hall, Katie Scott, and Kate Bradley, friends come into our lives and friends quickly leave. Friends stay for a while and leave footprints on our hearts. Thus, I will never, ever be the same.

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Taft Buck, Brandi Poss, Jeff Kolwaski, Chris Huntsinger, Michael Lumpkin, and Steve Squires, along my journey, each one of you taught me to be a better student, listener, and friend.

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CHAPTER I

INTRODUCTION

Background

The question is not if, but rather when, the next September 11 terrorist attacks will happen or when the next Hurricane Katrina will rip a path of destruction through the southern Louisiana parishes of Orleans, Plaquemines, Jefferson, and St Tammany. The initial hours of a natural or national disaster set the standard for the duration of the event. Despite obvious differences in the demand structures generated by wide-area disasters such as hurricanes compared to the tightly held areas of a terrorist attack, "research studies completed during the last two decades have validated the utility of a generalized approach" (Drabek, 1985, p.85) to a command structure.

During the early 1970s, the California Department of Forestry was overwhelmed with extensive forest fires, differences in personnel, equipment, terminology, and a systematic way of organizing and managing multiple firefighting agencies. The step made to correct the lack of integration to the development of the Firescope Program. This was a cooperative effort involving federal, state, and local forest firefighting agencies in California. The organizational management structure Firescope created was the Incident Command System (ICS). The ICS created a standard, on-scene, all-hazards organizational management approach.

This thesis follows the style of *International Fire Service Journal of Leadership and Management.*

In 2003, President George W. Bush issued Homeland Security Presidential Directive (HSPD)-5 “Management of Domestic Incidents” HSPD-5 overhauled the U.S. crisis management policy system and “mandated the development of a “concept of operations” for disasters that would incorporate all levels of government as well as crisis and consequence management functions within one unifying management framework” (Tierney, 2005).

In March 2004, the Department of Homeland Security, in response to HSPD-5, presented the National Incident Management System (NIMS). Under this presidential directive, all federal, state, local, and tribunal agencies were required to adopt and comply with NIMS. NIMS is a flexible framework that outlines how multiple government agencies and private entities coordinate interoperability during national and natural disasters. Figure 1 illustrates the incident command and general staff overhead framework.

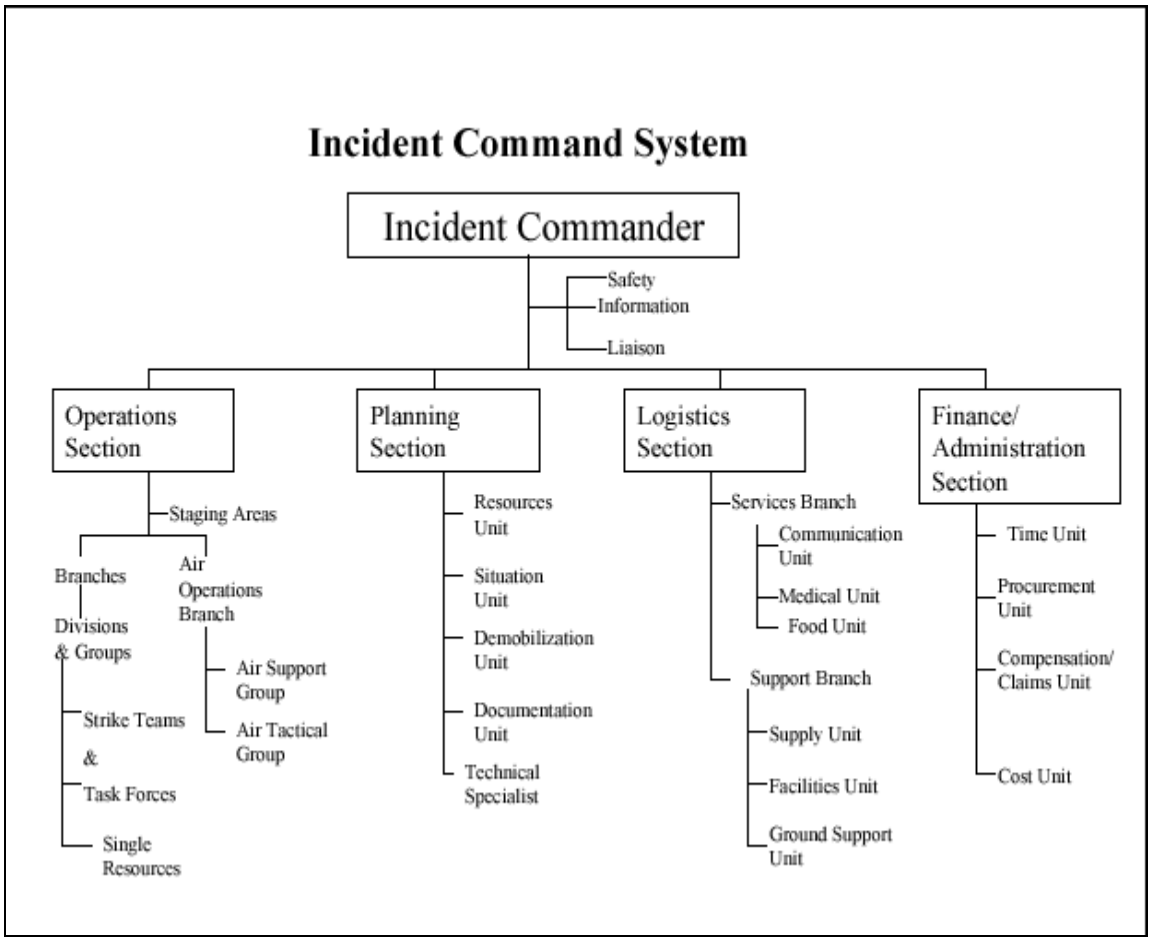

Figure 1. *Incident Command and General Staff Overhead.*

Buck, Trainor, & Aguirre (2006) wrote, this applies across all phases of incident management: prevention, preparedness, response, recovery, and mitigation. NIMS was put in place "to provide a comprehensive and consistent national approach to all-hazard incident management at all jurisdictional levels and across all functional emergency management disciplines" (FEMA, 2005, p. 29). FEMA's (2004) position paper noted that NIMS was put in place as a "balance between flexibility and standards" (p. 2). "In

mandating NIMS, the plan also institutionalizes the Incident Command System (ICS) as the preferred organizational structure for managing disasters for all levels of government and within all organizations that play (or wish to play) a role in disaster response activities" (Tierney, 2005).

The State of Texas followed HSPD-8 "National Preparedness" in 2004, with the Texas Homeland Security Strategic Plan (THSSP). The THSSP (Governor's Division of Emergency Management, 2004, p.24) defines who the Local incident commander is in Chapter IV, section B: Planning Concepts subsection 9: Local Governments, part a and b:

> a. By Executive Order, the Governor has designated the mayor of each municipal corporation and the county judge of each county as emergency management directors for these political subdivisions. In that same Executive Order, the Governor further authorized those elected officials to exercise the powers granted the Governor by Chapter 418 of the Government Code an appropriate local scale during disasters.
>
> b. Mayors and County Judges are responsible for emergency management planning within the jurisdiction and for providing guidance and direction for emergency response and recovery operations should emergency situations threaten or occur. Mayors and County Judges may appoint an emergency management coordinator (EMC), who shall serve as an assistant to the chief elected official to manage the emergency management program.

An incident commander is "the individual responsible for establishing and managing the overall operational plan" (Noll, Hildebrand, & Yvorra, 2002, p. 78). For elected officials to be effective as leaders in their communities during disasters they must have a working knowledge of who is in charge of what area of response (Norton, 2007).

One of the possible barriers to participation is that—by the rural nature of the State of Texas—local elected officials tend to be part time. The responsibly, in turn, relies on Public Safety Officials, for example, emergency managers, and first responders, such as law enforcement and firefighters. In rural Texas, most of the first responder training relies on the Public Safety Training Officers. These sparsely populated areas do not have a large selection of qualified members with experience in responding to disasters nor in training others in NIMS core set of principles, terminology, and organizational structure. Caplan (1998) wrote, "Furthermore, the availability of the interested and skilled persons required to fill official positions has diminished and impeded the ability to attract and retain qualified individuals to serve, both appointed and elected."

Firefighters have extensive experience in the use of the ICS; the practice was set into motion during the 1970s. The remaining field of emergency responders jumped on board with the ICS in 2004.

Managing national or natural disasters requires a mix of skills, competencies, and capacities that are beyond a single leader's scope of practice and therefore requires a network of responders. The success of an incident relies on the ability to activate and

effectively utilize multiple resources. Moynihan (2007) wrote, “At the same time, crises require coordination, rapid decision making, and decisive, coordinated action, characteristics associated with hierarchies.”

The probability of a relationship between the effectiveness of NIMS and the attitude of the respondents and noncompliance actors is very strong; however, no concrete evidence has been found to confirm these relationships. *Actors* is defined as another emergency responder rather than the respondent. These potential links could have a profound impact on the educational techniques used in training future public safety personnel. These connections could lead to “smarter” teaching where learning from one area is valuable in other areas of educational development.

Rural Texas Public Safety Training Officers are less likely to participate within full NIMS overhead since the frequency of incidents that require that cadre of specialist is relatively low. Furthermore, these individuals were chosen as respondents because they can shine a light on the public view into the world of critical emergency response. Some professional emergency responders suggested that this study look at urban and suburban public safety departments since they have an increased chance at responding to a large-scale incident. Many urban and suburban public safety-training officers have a much greater chance at participating, and many have participated in incidents that expand to a full NIMS overhead.

Today, the world is full of the possibility of terrorist attacks, urban and wild fires, hurricanes, tornados, earthquakes, and flooding. This era of handling novel, large-scale disasters requires public safety officers who can command multiagency personnel in

coordination in an uncontrolled environment response. Little emphases have been placed on interoperability training among emergency responders. Rural public safety officers are normally trained in subjects such as fire engine pump theory, hose application, cultural diversity, firearm qualification, and suicide prevention.

Statement of the Problem

Although research has been conducted on the organizational culture, and the limitations of NIMS, research evaluating the attitudes and perceptions regarding the effectiveness of NIMS is scarce. Understanding this relationship could lead to better adaptability, mentoring, and teaching that further advances the development of more proficient incident commanders.

Swanson's (1972) concept of cognitive dissonance explains that the information received will affect behavior to represent the information he/she knows and his/her attitudes. Therefore, it is necessary to provide information about a particular issue if the goal is to change attitudes or behaviors.

Figure 2 illustrates the definite relationship connected to education, knowledge, attitudes and behavior (Swanson, 1972).

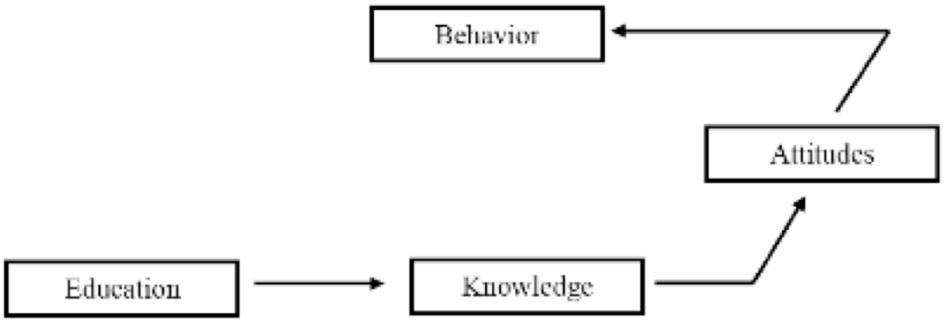

Figure 2. *Illustration of Swanson's Concept of Cognitive Dissonance*

This learning cooperative provides a foundation that could be used to improve education and develop the building of an efficient and proactive NIMS framework.

Purpose and Objective

The primary intent of this study was to explore and examine the attitudes and perceptions of Texas Public Safety Training Officers regarding effectiveness of the National Incident Management System (NIMS). The objectives were to improve organizational culture within the structure, improve NIMS education, and improve adaptation of NIMS principles, through compliance among respondents. The research design of the study was an exploratory-mixed method. In the first three sections of the questionnaire, quantitative hypotheses addressed the attitudes, perceptions, and noncompliance respondents of Texas public safety training officers regarding the effectiveness of NIMS. The final section of the questionnaire, qualitative structured questions was used to explore aspects of personal characteristics. This study attempted to gather data that can be compared with successful and unsuccessful training from respondents in a disaster incident. This will allow further insight into the specific levels

of competence in disaster incident management. In this study, respondents were asked to answer questions related to their opinions on the effectiveness of NIMS.

Research Questions

Based on researcher experience, purpose and literature review, researcher questions were:

1. What are training officer's attitudes of NIMS effectiveness?
2. What are training officer's perceptions of NIMS effectiveness?
3. What are training officer's proposed solutions to NIMS noncompliance respondents?

Methods

The mixed method research design used for this study was descriptive and exploratory by default. The target population was 100 rural public safety departments, training officers, 50 randomly selected law enforcement and fire departments, respectively. One questionnaire was mailed to each department. Thirty-three of the 100 public safety departments asked to participate responded. A training officer from each department responded as a respondents in the study. The respondents were kept anonymous and are referred to as "R" and a number (i.e., R1).

The researcher recognized that limitations existed within the study. Utilization of mail-out questionnaires is a limitation; the researcher wanted to reach rural populations, where the internet is not as common as in urban areas. Dillman (2007) wrote, "One objective is to reduce nonresponse. It has been shown that respondent-friendly

questionnaire design can improve response rates, but only to modest degrees" (p. 81). Face-to-face contact with respondents may improve data results.

The researcher used a mixed method data collection procedure to gather information and analyze data. Merriam (1998) wrote that the researcher's personal biases can interfere with the study outcome. Johnson (1997) wrote, "Researcher bias tends to result from selective observation and selective recording of information, and also from allowing one's personal views and perspectives to affect how data are interpreted and how the research is conducted" (p. 284). Johnson (1997) wrote that in qualitative research, the key to understanding bias is reflexivity, which requires that the researchers critically analyze their potential biases and predispositions. Creswell and Plano Clark (2007) wrote that researchers use quantitative research because of the stability of data.

CHAPTER II

LITERATURE REVIEW

The purpose of this literature review was to gather information about the complex challenges of the National Incident Management System (NIMS) that face public safety training officers. This literature review focused on understanding interoperability within NIMS organizational culture, and leadership at the command level and how to improve future education. The study of this literature guided the research evaluation of Rural Texas Public Safety Training Officers and provided the groundwork for future improvements in research and change in the effectiveness of NIMS.

Varley (2003), quoting Schwartz, wrote that NIMS is not a magic bullet; it does not solve all the challenges that incident commanders face in establishing command, although it does allow emergency responders to visibly, confidently, establish their presence right away.

Organizational Culture

"As the disaster agent changes from tornado or hurricane to toxic chemical spill or terrorist threat so, too, does the set of responding organizations and the specific task they confront" (Drabek, 1985). Today, there are thousands of public safety agencies across the United States. Most of these agencies are specialized and highly trained in a specific field, such as fire departments, environmental quality, public health, and mass transit. Each agency has a unique organizational culture, which contains personnel who are set out to achieve a set of goals. Organizational culture contains a specific set of

"ideologies, symbols, and core values" that is distributed throughout the structure and influences the respondents. (Hitt, Ireland, & Hoskisson, 2001, p. 504). "The challenge, therefore, with emergency response is how to get people to go past their own agendas and see each other as allies rather than adversaries in support of a mission. An organizational structure does provide that capability on a human side" (Wagreich, 2006, p. 20). Research has indentified decentralization of local government that allows for and, to some extent, increases the lack of standard organizational structure. Research has looked at the reluctance to adopt NIMS framework, within, organizational culture. However, researchers agree that the overall flexibility is important, but the degree of organizational standardization is critical (Howitt & Leonard, n.d.; Drabek, 1985; Quarantelli, 1988; Varley, 2003).

Even though there has been interest in studying the incident command system over the 35 years prior to the arrival of NIMS, the primary focus was on the lack of authority between agencies (Quarantelli, 1985; Drabek, 1985; Quarantelli, 1988; Howitt & Leonard, n.d.). When there is a lack of goals or a conflict of prioritizing goals the organizational culture fails to have the authority to make hard choices that present themselves (Howitt & Leonard, n.d.; Drabek, 1985). Drabek (1985) wrote, quoting Weick, that "loosely structure systems" do not give enough attention to the limits of authority that constrain officials working within these organizational structures.

> "A fundamental problem with the Katrina response was the failure to establish unified command. No single individual took charge in the early stages of the disaster, as neither the mayor of New Orleans, the governor of Louisiana, nor the

> head of FEMA or DHS exerted anything other than partial control of the response. Efforts to foster clear and unified command faltered because much of the state and local emergency infrastructure was destroyed, and because "overwhelmed organizations cannot achieve unity of command" (House Report 2006, 184–185, 189). This failure to establish a unified command led to multiple, duplicative, and uncoordinated efforts (House Report 2006, 194–195)" (Moynihan, 2007, p. 22).

NIMS organization structural configuration is that of a divisional form. The prime coordinating mechanism promotes a standardization of outputs. These outputs develop from middle management, which indicate this level as the key part of the organization (Nelson & Quick, 2000). Nelson and Quick wrote that this form of organizational structure may include other forms of structural configurations, such as one division that is a machine bureaucracy, one that is an adhocracy, and one that is a simple structure (p. 506).

Leadership at the Command Level

"In fact, despite their years of practice and preparation, Arlington County fire officials would face a string of predicaments in the course of the Pentagon emergency that they had never fore seen situations that would demand judgments and capacities, as ACFD Chief Edward Plaugher puts it, that "they don't teach you in fire chief school" (Varley, 2003, p. 3).

Organizational leadership requires effective and knowledgeable ideologies set in the correct direction needed for success. Leadership competencies create trust and

reliability within an organization. “Leadership is an influence process which is directed toward group goal achievement” (Rothwell, p. 128). Recognizing change and moving forward defines the constant. Leadership comes with decisions that are not always popular, but group success speaks mountains.

“Competence leads to trust people may respect you for your integrity and honesty, but they won’t trust you to lead if you can’t do your job. On the other hand, the intensity with which your people trust you comes from consistency” (Salka, 2004, p. 63). Researchers say the leadership process involves examples of character traits, such as a strong mental ability, personality, communication, the ability to motivate others, and a vision with direction (Du Brin, 2007, & Nelson and Quick, 2000). Du Brin (2007) wrote that these traits are “important for leadership success” (p. 157).

Leadership effectiveness relies on relationships built and nurtured. Nelson and Quick (2000) wrote that the quality of interpersonal relationships between a leader and affiliates determine the degree of favorableness for a leader. “Uncovering your people’s points of view allows you to examine all possible sides of a problem and test the assumptions on which you might base your decision. [T]he more sides you can see of the situation, the more likely it is that you’ll hit on the optimal solution” (Salka, p. 107). In contrast, a haphazard leader pollutes the success of an organization, and Salka wrote that this “indifferentiated standards end up lowering the quality of your people’s work” (p.147).

Leadership by example sets a pace that allows followers to set a goal, and to reach for that goal. “By word or by personal example, and through their ability to

envision the future, effective leaders meaningfully influence the behavior, thoughts, and feelings of those with whom they work" (Hitt, Ireland, & Hoskisson, p. 488). Researchers noted that followers tend to protect leaders from failing and promote the cause of leaders (Nelson & Quick, 2000) "It is also important that the top management team members function cohesively" (Hitt, Ireland, & Hoskisson, p. 492).

Leaders are the primary source of guidance and a positive reinforcement for affiliates. "[Bill] Bradley perceives leadership as getting people to think, believe, see, and do what they might not have without your presence. In other words, the leader makes a difference" (DuBrin, p. 148). This type of leadership is known as transformational leadership. These leaders motivate and provide followers with a vision of inspiration.

Education Methods

Emergency responders are involved in a unique culture that is separated by drastic education levels. Most law enforcement officers and all emergency managers completed a four-year degree. A small percentage of firefighters have barely completed enough college hours to complete an associate's degree. Education is a learning experience in that it seeks a relatively permanent change in an individual that will improve the ability to perform on the job. DeCenzo & Robbins (1999) wrote, "We typically say training can involve the changing of skills, knowledge, attitudes, or behavior" (p. 227). Actor compliance through education rewards the entire organization with efficiency, new skills, and the abilities to perform at a greater than expected level. "Given the importance of innovation for a firm's success in the competitive landscape,

an ability to innovate or to create conditions that stimulate innovation throughout a firm is a liability for strategic leader" (Hitt, Ireland, & Hoskisson, 2001, p. 496). In 2003 Everett Rogers wrote:

> Diffusion is the process in which an innovation is communicated through certain channels over time among the members of a social system. It is a special type of communication, in that the messages are concerned with new ideas.
>
> Communication is a process in which respondents create and share information with one another in order to reach a mutual understanding. This definition implies that communication is a process of convergence (or divergence) as two or more individuals exchange information in order to move toward each other (or part) in the meanings that they give to certain events (p. 6).

Learning is critical to each member's success, and new knowledge will lead to a change in attitude and perception of future NIMS training. Salka wrote, "If you lead with change, then that's what people will focus on"; and, "So try it a different way. Treat your people like adults and give them the information they need to evaluate the change on their own" (p. 189).

Rothwell (2001), quoting Goleman, (1998), wrote, "A principal reason that most teams struggle is lack of training in how to make teams work effectively." Combined training within the emergency responder community promotes different ideologies working together to achieve a common goal. Rothwell (2001) wrote, "Some group's rules should be changed. Most of the time, however, we merely need to adapt to the rules of the group, not tramp all over them" (p. 15). Team building between public safety

training officers develops interpersonal relations, role clarification, and defines responsibilities. “Learning cooperative communication patterns is vital if you hope to build teamwork” (Rothwell, p. 99).

Organization dynamics employ a change agent to promote an environment in which change can be made. Change agents often look to the innovation-change process to measure the student’s rate of change. Rogers wrote “We conceptualize five main steps in the innovation-decision process: (1) knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation” (p. 20).

CHAPTER III

METHODOLOGY

This mixed methods study, combined quantitative and qualitative data to provide a better picture of the research problem. This study embedded one data set so that the other type of data plays a supportive actor for the first data set. "Mixed methods research provides strengths that offset the weaknesses of both quantitative and qualitative research" (Creswell & Plano Clark, 2007, p. 9). The mixing of both types of research provides a clearer picture by noting trends and generalizations, in addition to in-depth knowledge and perceptions of respondents (Creswell & Plano Clark, 2007).

Qualitative research provides rich description (Sofaer, 1999). These descriptions can enhance the field of view and identify patterns and configurations among variables (Sofaer, 1999). "Qualitative research not only serves the desire to describe; it also helps move inquiry toward more meaningful explanations" (Sofaer, p. 1102). A fundamental qualitative study is a method to "discover and understand a phenomenon, a process, or the perspectives and worldviews of the people involved" (Merriam, 1998, p. 11).

A fundamental quantitative study is a simple study, which describes the relationship between two or more variables. Quantitative research is also known as correlational research. "A correlational study describes the degree to which two or more quantitative variables are related, and it does so by using a correlation coefficient" (Fraenkel & Wallen, 2006). Quantitative research is a great way to dichotomize data so that the data can become manageable to fit into an analytic plan (Sofaer, 1999). Sofaer

(1999) wrote that quantitative research does not always support qualitative research, the dynamics and multi dimensional views.

The intent of this study was to improve NIMS education, improve adaptation of NIMS principles, and to improve multi-organizational management within the structure, through compliance among respondents. To gather in depth detail about this subject, mixed methods research was conducted.

Random Sample

Random sampling gives every member of the populace an equal chance to be chosen. Merriam (1998) wrote, " [I]t is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (p. 61).

One hundred rural public safety departments were asked to participate, 50 randomly selected law enforcement and fire departments, respectively. The nature of a random sample does not allow the researcher to identify whether the respondents were full-time, part-time, or volunteer. A notice letter was mailed to the training officer at each department, requesting their participation prior to the questionnaire. Dillman (2007) wrote that one of the five needed elements for achieving high response rates was providing respondents with a notice letter before the questionnaire. The questionnaire was mailed seven days after the notice letter. Fourteen days later, a reminder notification was mailed to training officers who had not responded.

The most effective technique when looking at how to increase response rates for questionnaires by mail is that multiple contact attempts are necessary (Dillman, 2007).

Dillman (2007) wrote, “Designing a quality survey begins with two fundamental assumptions: (1) responding to a self-administered questionnaire involves not only cognition, but also motivation (Jenkins & Dillman, 1995, 1997), and (2) multiple attempts are essential to achieving satisfactory response rates to self-administered surveys regardless of whether administered by e-mail, the web, or postal delivery (Scott, 1961; Heberlein & Baumgartner, 1978; Dillman, 1991)” (p. 13). The researcher notice letter is in Appendix B.

One hundred questionnaires were mailed to the possible respondents. Each questionnaire explained the purpose of the study and provided researcher contact information in case of assistance. Dillman (2007) wrote, “[P]ersonalization of correspondence to stamped return envelopes, have been shown to have modest effects on the response rates in most survey situations, and are usually important for maximizing survey response.” Fourteen days after the questionnaire was mailed, a reminder letter was mailed to non-respondents. The researcher reminder letter is in Appendix C.

Of the 100 rural public safety departments requested to participate, 33 responded. Seventeen respondents responded that they were a rural department. Three of the 33 respondents had zero years of experience as a training officer. There were 33 males and zero female respondents. This sample is reflective of the gender breakdown in the majority of public safety departments.

Lindner, Murphy, and Briers (2001) listed three techniques applicable for handling non-responders: (1) comparing early to late respondents, (2) using “days to respond” as a regression variable, and (3) comparing respondents to non-respondents.

No dissimilarity were found in the responses of early and late responders, "so the results are generalizable to the target population" (Miller & Smith, 1983).

"To ensure the external validity or generalizability of research findings to the target population, the researcher must satisfactorily answer the question of whether the results of the survey would have been the same if a 100% response rate had been achieved" (Lindner, Murphy, and Briers, 2001), quoting Richardson (2000). Marshall (1996) said the maximum number of respondents necessary in a qualitative study normally will become obvious as the study progresses, new categories, themes or explanations stop emerging, this is known as "data saturation." The definition of data saturation is "the point which no new information or themes are observed in the data" (Guest, Bunch, & Johnson 2006, p. 59).

Instrumentation

The instrument was developed based on Dillman's (2007) principles of the social exchange theory. The researcher constructed the instrument. Dillman (2007) wrote, "One objective is to reduce nonresponse. It has been shown that respondent-friendly questionnaire design can improve response rates, but only to modest degrees (Dillman, Sinclair, & Clark, 1993)" (p.81). Dillman (2007), quoting Heberlein and Baumgartner (1978), said that research has shown that the best predictor of response rates to mail questionnaires is the salience of the instrument.

The questionnaire was checked for validity by peer review where the reviewers did not contribute to the development of the instrument (Dillman, 2007). The reliability was tested through a measure of internal consistency. A pilot questionnaire was sent to a

controlled sample of Houston (Texas) Firefighters to reduce social cost. The respondents provided feedback that provided optimum participation. Miller, Torres, and Lindner (2005) wrote, "A measure of reliability can also be obtained using a single administration of an instrument and is generally referred to as a measure of internal consistency . . . this method produces a very conservative estimate of reliability" (p. 14). Another avenue to checking internal consistency is to calculate Chronbach's alpha (Fraenkel & Walden, 2007).

Establishing trust can be difficult to achieve through a mail survey, Dillman (2007), quoting Cialdini (1984), suggested, "People are more likely to comply with a request if it comes from an authoritative source, that is, one whom the larger culture defines as legitimated to make such request and expect compliance" (p. 20). Texas A&M University, Department of Agriculture Leadership, Education, and Communications established trust through sponsorship of the study.

Social exchange elements were used to increase response rates. Dillman (2007) wrote that it is important to recognize that certain reward-designed statements, such as "your opinions are very valuable and you are the only source of this information," are related to mandatory participation and create an argument of importance.

The first three sections of the questionnaire contained a series of closed-ended questions, all designed to determine the respondents level of understanding of their assigned roles and to elicit their perceptions concerning organizational structure, education, and adaptation. The last section of the questionnaire contained a series of open-ended questions, all designed to determine personal characteristics.

Data Analysis

The researcher collected data and analyzed them using descriptive and inferential statistical tests. Both tests are customary to establish relationships between independent and dependent variables. Analyzing data relative to the research of relationships between variables is a basic prediction process (Tilton, 1999). "While descriptive statistics only seek to describe what the data are, inferential statistics allow the researcher to go beyond the data, offering conclusions and outcomes that can be applied to the subject population as a whole" (Mineo, 2009, p. 139).

The data were coded and hand-entered into an eXcel spreadsheet, and then exported to Statistical Package for the Social Sciences (SPSS). The data were entered twice to verify that data was entered correctly. The data were analyzed using SPSS© v. 16. Analysis was conducted using correlations. Chronbach's alpha level was set *a priori* at a=.05.

The researcher identified and categorized all three processes that respondents answered concerning the dimensions of the effectiveness of NIMS. The mean and standard deviation were added to the separate statements. The categories were separated into three equal parts based on the number of responses.

The Likert-scale measured the respondent opinions of the effectiveness of NIMS (1=Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, 5=Strongly Agree) with statements. The Likert-scale interpretation for data analysis purpose indicates the following: 11.49 tends to strongly disagree, 1.52.49 tends to disagree, 2.5-3.49 neither agrees nor disagrees, 3.54.49 tends to agree, 4.505.0 tends to strongly agree.

Data were analyzed using descriptive statistics (central tendency, standard deviation, means). Kutoses appeared tall, and ambiguity aligned in the median. Interpretation of the data indicated negative skew. Visual inspection, indicated normally distribution. Based on the number of response, categories with respondents years as a training officer, respondents involved with formal NIMS incident command, and respondents having had (Yes) NIMS training face to face, had to be broken down into three equal categories.

This study was one of the initial attempts at utilizing mixed method techniques for this purpose, as greater exposure is gained, more sophisticated methods will surface that will provide a more detailed, objective assessment of respondents knowledge, adaptation, attitudes, and perceptions concerning NIMS performance.

CHAPTER IV

FINDINGS AND DISCUSSIONS

This chapter presents research findings regarding the attitudes and perceptions of Texas public safety training officers regarding the effectiveness of the National Incident Management System (NIMS). The research designed used for this study was a mixed method. The first three sections of the questionnaire were quantitative, and the last section was qualitative. No previous data were collected on this topic. The researcher designed and validated the questionnaire. Three questions in the qualitative personal characteristics section of the questionnaire were divided into three equal categories based on the number of responses.

The research questions and associated hypotheses outlined in previous chapters were designed to examine the attitudes and perceptions of the effectiveness of NIMS, and proposed solutions to NIMS noncompliance respondents. The research recognizes a limitation because the attitudes and perceptions are self reported and not a measurement of the variables themselves.

Results

Of the 100 rural public safety departments requested to participate, 33 responded, all males. Texas Public Safety Training Officers (N=33) were the target population for this study. Seventeen respondents responded that they were a rural department. Three of the 33 respondents had zero years of experience as a training officer.

Findings Related to Research Question One

Research Question One asked respondents what their attitudes of NIMS effectiveness were. Respondents were asked what level of effectiveness NIMS possessed on 10 items. The questionnaire included statements on the identification of important command questions. An example of important command positions are logistics, planning, and operations. The questionnaire included statements on the ease for respondents to comprehend.

Table 1 shows respondents' levels of overall attitude of NIMS effectiveness (*M=3.6*) and a (*SD=0.8*). Based on the findings, "indentifying important command positions" had the highest mean score and standard deviation (M=4.1, SD=0.8), followed by "easy to comprehend" (M=3.8, SD=0.9). The two lowest means and standard deviations of the attitudes of NIMS effectiveness were "should be followed at every incident" (M=3.4, SD=1.3), followed by "easy for my department to comply with" (M=3.4, SD=0.8).

Table 1

Public Safety Training Officers Attitudes of NIMS Effectiveness

Statement	*M*	*SD*
NIMS identifies important command positions.	4.1	0.8
NIMS is easy for me comprehend.	3.8	0.9
NIMS is an effective tool for my department.	3.7	1.1
NIMS will improve my ability to communicate on scene.	3.7	1.1
NIMS will increase my competence in my job.	3.6	1.1
NIMS is easy to incorporate into standard operating procedures.	3.5	0.8
NIMS is easy to place into action at my department.	3.4	0.8
NIMS should be followed at every incident.	3.4	1.3
NIMS is easy for my department to comply with.	3.4	0.8
NIMS is a favorable tool for my department to use.	3.3	1.2

Note. Scale, 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree; Overall *M*=3.6, *SD*=0.8

Findings Related to Research Question Two

Research Question Two asked respondents what their perception of NIMS effectiveness were. Respondents were asked what level of effectiveness NIMS possessed on 10 items. The questionnaire included statements on the use of outside resources. An example of outside resources is another local-public works, state-department of transportation, or federal-environmental protection agency entity. The questionnaire included statements on the preparedness of emergency responders for incident management.

Table 2 shows respondents' levels of overall perception of NIMS effectiveness (M=3.7) and a (SD=0.8). Based on the findings, "allows the incident commander to use outside resources" had the highest mean score and standard deviation (M=4.2, SD=0.7), followed by "will prepare emergency responders for incident management" (M=4.0, SD=0.9). The two lowest means and standard deviations of the perception of NIMS effectiveness were "allowed me to become a more effective leader" (M=3.4, SD=1.1), followed by "is followed at every incident to which my department responds" (M=3.2, SD=1.1).

Table 2

Public Safety Training Officers Perception of NIMS Effectiveness

Statement	*M*	*SD*
NIMS allows the incident commander to use outside resources.	4.2	0.7
NIMS will prepare emergency responders for incident management.	4.0	0.9
NIMS clearly states who is in charge of an incident.	4.0	0.8
NIMS has created a workable incident framework.	4.0	0.9
NIMS has prepared me to manage an incident.	3.7	0.9
NIMS has prepared emergency responders to communicate better.	3.7	1.2
NIMS has improved emergency responders interoperability.	3.7	1.1
NIMS has improved emergency responders incident communication.	3.6	1.1
NIMS has allowed me to become a more effective leader.	3.4	1.1
NIMS is followed at every incident to which my department responds.	3.2	1.1

Note. Scale, 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree; Overall *M*=3.7, *SD*=0.8

Findings Related to Research Question Three

Research Question Three asked respondents to propose solutions to NIMS noncompliance respondents. Respondents were asked what level of noncompliance NIMS respondents possessed on 10 items. The questionnaire included statements on the use of mentors for incident commanders. An example of mentoring "would be similar to an internship". The questionnaire included statements on an easy-to-follow worksheet.

Table 3 shows respondents' levels of overall proposed solutions to NIMS noncompliance respondents (M=4.1) and a (SD=0.5). Based on the findings, "each agency should be involved with field exercises" had the highest mean score and standard deviation (M=4.5, SD=0.6), followed by "should have an easy-to-follow worksheet" (M=4.5, SD=0.5). The two lowest means and standard deviations to the proposed solutions for NIMS noncompliance respondents were "county extension agents should be able to assist civilians with" NIMS (M=3.8, SD=0.9), and "NIMS can be broken down for civilian understanding with" (M=3.5, SD=0.8).

Table 3

Public Safety Training Officers Perceptions of Proposed Solutions to NIMS Noncompliance Respondents (N=33)

Statement	*M*	*SD*
Each agency should be involved with field exercises.	4.5	0.6
NIMS should have an easy-to-follow worksheet	4.5	0.5
Increase elected official awareness with NIMS understanding.	4.3	1.0
A working knowledge of NIMS is a must for all possible responders.	4.2	0.7
New incident commanders should have a mentor.	4.1	0.8
Deputy incident commander should have a mentor.	4.0	0.8
All responders should support an NIMS easy-flow pamphlet.	4.0	0.8
Urban county incident commander should assist rural county Incident Command.	3.9	0.7
County extension agents should be able to assist civilians with NIMS.	3.8	0.9
NIMS can be broken down for civilian understanding.	3.5	0.8

Note. Scale, 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree; Overall *M*=4.1, *SD*=0.5

Personal Characteristics

Table 4 shows that the largest age category of respondents was 43-49 years old, frequency of 13 respondents make up 39.3% of the population.

Table 4

Age of Respondents (N=33)

Age Category	*f*	%
32-42	9	27.3
43-49	13	39.4
50 and above	11	33.3
Totals	33	100.0

Table 5 shows that the only gender category of respondents was male, frequency of 33 respondents make up 100% of the population.

Table 5

Gender of Respondents (N=33)

Gender	*f*	%
Male	33	100.0

Table 6 shows that the highest category for years respondents have been a training officer was 20 and above, frequency of 12 respondents make up 36.4% of the population.

Table 6

Years Respondents Have Been a Training Officer (N=33)

Years Category	*f*	%
0-6	11	33.3
7-19	10	30.3
20 and above	12	36.4
Totals	33	100.0

Table 7 shows the number of time respondents have been involved with formal NIMS incident command was 20 and above, frequency of 13 make up 39.4 % of the population.

Table 7

Number of time Respondents Have Been Involved with Formal NIMS Incident Command (N=33)

Number Category	*f*	%
0-2	10	30.3
3-19	10	30.3
20 and above	13	39.4
Totals	33	100.0

Table 8 shows the number of respondents having had (Yes) NIMS training face to face was significantly great at a frequency of 29 that make up 87.9 % of the population.

Table 8

Respondents Having Had (Yes) NIMS Training Face to Face (N=33)

Category	*f*	%
Yes	29	87.9
No	4	12.1
Totals	33	100.0

Table 9 shows that respondents stated their department location was in a rural setting with a frequency of 17 at 51.5 % of respondents.

Table 9

Departmental Location (N=33)

Category	*f*	%
Rural	17	51.5
Suburban	12	36.4
Urban	4	12.1
Totals	33	100.0

Relationship Between NIMS Competencies and Personal Characteristics

Table 10 shows that the mean respondents attitude of NIMS effectiveness did not differ by age category.

Table 10

Public Safety Training Officers Attitudes of NIMS Effectiveness by Age (N=33)

Age Category	*n*	*M*	*SD*	*F*	*p*
32-42	9	3.6	0.6	0.65	0.53
43-49	13	3.7	0.8		
50 and above	11	3.4	0.9		

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 11 shows that the mean public safety training officers perception of the effectiveness did not differ by age category.

Table 11

Public Safety Training Officers Perception of NIMS Effectiveness by Age (N=33)

Age Category	*n*	*M*	*SD*	*F*	*p*
32-42	9	3.9	0.7	1.79	0.19
43-49	13	3.9	0.8		
50 and above	11	3.4	0.7		

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 12 shows that the mean public safety training officers perception of proposed solutions to NIMS noncompliance respondents did not differ by age category.

Table 12

Public Safety Training Officers Perceptions of Proposed Solutions to NIMS Noncompliance Respondents by Age (N=33)

Age Category	*n*	*M*	*SD*	*F*	*p*
32-42	9	4.3	0.3	2.60	0.91
43-49	13	4.2	0.4		
50 and above	11	3.8	0.7		

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 13 shows that the mean respondents attitudes of NIMS effectiveness did not differ by years as a training officer.

Table 13

Public Safety Training Officers Attitudes of NIMS Effectiveness by Years as a Training Officer (N=33)

Years Category	*n*	*M*	*SD*	*F*	*p*
0-6	11	3.6	1.0	0.49	0.62
7-19	10	3.7	0.6		
20 and above	12	3.4	0.7		

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 14 shows that the mean public safety training officers perception of NIMS effectiveness did not differ by years as a training officer.

Table 14

Public Safety Training Officers Perception of NIMS Effectiveness by Years as a Training Officer (N=33)

Years Category	*n*	*M*	*SD*	*F*	*p*
0-6	11	3.9	0.8	1.66	0.21
7-19	10	3.9	0.6		
20 and above	12	3.4	0.7		

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 15 shows that the mean public safety training officers perception of proposed solutions to NIMS noncompliance respondents did not differ by years as a training officer.

Table 15

Public Safety Training Officers Perceptions of Proposed Solutions to NIMS Noncompliance Actors by Years as a Training Officer (N=33)

Years Category	*n*	*M*	*SD*	*F*	*p*
0-6	11	4.2	0.6	2.21	0.13
7-19	10	4.2	0.3		
20 and above	12	3.8	0.4		

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 16 shows that the mean public safety training officers attitudes of NIMS effectiveness differed greatly by number of times involved in a formal NIMS incident command.

Table 16

Respondents Attitudes of NIMS Effectiveness by Number of Times involved in a Formal NIMS Incident Command (N=33)

Number Category	*n*	*M*	*SD*	*F*	*p*
0-2	10	2.9	0.7	9.27	0.00
3-19	10	3.8	0.5		
20 and above	13	4.0	0.5		

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 17 shows; the mean public safety training officers perception of NIMS effectiveness did not differ by number of times involved in a formal NIMS incident command.

Table 17

Public Safety Training Officers Perception of NIMS Effectiveness by Number of Times involved in a Formal NIMS Incident Command (N=33)

Number Category	*n*	*M*	*SD*	*F*	*p*
0-2	10	3.3	0.8	2.60	0.09
3-19	10	4.0	0.6		
20 and above	13	3.9	0.8		

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 18 shows that the mean public safety training officers perceptions of proposed solutions to NIMS noncompliance respondents did not differ by number of times involved in a formal NIMS incident command.

Table 18

Public Safety Training Officers Perceptions of Proposed Solutions to NIMS Noncompliance Actors by Number of Times involved in a Formal NIMS Incident Command (N=33)

Number Category	*n*	*M*	*SD*	*F*	*p*
0-2	10	3.8	0.6	3.22	0.06
3-19	10	4.2	0.4		
20 and above	13	4.2	0.4		

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 19 shows that the mean respondents attitudes of the effectiveness did not differ by location.

Table 19

Respondents Attitudes of NIMS Effectiveness by Location (N=33)

Category	*n*	*M*	*SD*	*F*	*p*
Rural	17	3.4	0.8	1.17	0.33
Suburban	12	3.8	0.7		
Urban	4	3.6	0.6		

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 20 shows that the mean public safety training officers perception of the effectiveness did not differ by location.

Table 20

Public Safety Training Officers Perception of NIMS Effectiveness by Location (N=33)

Category	*n*	*M*	*SD*	*F*	*p*
Rural	17	3.6	0.8	0.58	0.57
Suburban	12	3.9	0.6		
Urban	4	3.8	0.8		

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 21 shows the that mean public safety training officers perceptions of proposed solutions to NIMS noncompliance did not differ by location.

Table 21

Public Safety Training Officers Perceptions of Proposed Solutions to NIMS Noncompliance Respondents by Location (N=33)

Category	*n*	*M*	*SD*	*F*	*p*
Rural	17	4.0	0.5	0.80	0.46
Suburban	12	4.2	0.4		
Urban	4	3.9	0.4		

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 22 shows that the mean respondents attitudes of NIMS effectiveness did not differ by respondents having had (Yes) NIMS training face to face.

Table 22

Respondents Attitudes of NIMS Effectiveness by Respondents having had (Yes) NIMS Training Face to Face (N=33)

Category	*n*	*M*	*SD*	*t*
Yes	29	3.7	0.8	0.12
No	4	3.0	0.7	

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 23 shows that the mean public safety training officers perception of NIMS effectiveness did not differ by respondents having had (Yeas) NIMS training face to face.

Table 23

Public Safety Training Officers Perception of NIMS Effectiveness by Respondents having had (Yes) NIMS Training Face to Face (N=33)

Category	*n*	*M*	*SD*	*t*
Yes	29	3.8	0.8	0.31
No	4	3.4	0.2	

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Table 24 show the mean public safety training officers precipitations of proposed solutions to NIMS noncompliance actors did significantly differ by respondents having had (Yes) NIMS training face to face.

Table 24

Public Safety Training Officers Perceptions of Proposed Solutions to NIMS Noncompliance Actors by Respondents having had (Yes) NIMS Training Face to Face (N=33)

Category	*n*	*M*	*SD*	*t*
Yes	29	4.2	0.5	1.30
No	4	3.8	0.4	

Note: Scale, 1=strongly disagree; 2=disagree; 3= neither agree nor disagree; 4=agree; 5=strongly agree

Summary of Findings and Discussions

Objective One

The first objective was to describe the differences of the training officer's attitudes of NIMS effectiveness and personal characteristics. Table 10 shows that respondents who were 4349 years old tended to agree on the effectiveness of NIMS. Table 13 shows that respondent's attitudes with 719 years as training officer tended to agree toward the effectiveness of NIMS. Table 16 shows that the greatest impact on the study, respondents (*n=10*) with 02 times with involvement in a formal NIMS incident command tended to disagree with the effectiveness of NIMS. Table 19 shows that respondents in a rural location tended to neither agree nor disagree that attitudes impact the effectiveness of NIMS. Table 22 shows that respondents who have had (Yes) face-to-face NIMS training tended to agree on the level of influence that face-to-face training has on the attitudes of the effectiveness of NIMS.

Objective Two

The second objective was to describe the differences of the training officer's perceptions of NIMS effectiveness and personal characteristics. Table 11 shows that respondents who were 4349 years old tended to agree on the effectiveness of NIMS. Table 14 shows that respondents with 20 and above years as a training officer perception toward the effectiveness of NIMS tended to neither agree nor disagree. Table 17 shows that respondents' perception of NIMS effectiveness tended to agree by the number of times involved in a formal NIMS incident command category 20 and above. Table 20 shows that respondents in all three categories tended to agree that location does effect

perceptions of NIMS. Table 23 shows that respondents having had (Yes) NIMS training face-to-face tended to agree on the perception of NIMS effectiveness.

Objective Three

The third objective was to describe the differences of the training officer's proposed solutions to NIMS noncompliance respondents and personal characteristics. Table 12 shows that respondents who were 4349 years old tended to agree on the effectiveness of NIMS. Table 15 shows that respondents with 20 and above years as training officer perceptions of proposed solutions to NIMS noncompliance respondents tended to neither agree nor disagree. Table 18 shows that respondents of the proposed solutions to NIMS noncompliance respondents tended to agree in all three categories that the number of times involved in formal NIMS incident command has impact on the overall perception. Table 20 shows that the location category influences the respondents tended to agree on the perceptions of the proposed solution to NIMS noncompliance respondents. Table 24 shows that respondents tended to agree to having had (Yes) NIMS training face-to-face as a proposed solution to NIMS noncompliance respondents.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

This study examined the attitudes and perceptions of public safety training officers regarding how effective NIMS is during disaster incident management. The study explored the interoperability of NIMS, improving leadership, and NIMS noncompliance actors. Specifically, the study examined organizational culture, leadership at the command level, and education methods.

NIMS seems to be going in the right direction, but it is obvious in a disaster incident that improvements are needed, particularly in training, in documents, and in interoperable activities. Responder R13 summed it up nicely: "NIMS is going in the right direction for major incidents. I have found some parts of NIMS difficult to understand even with 24 years in the fire service, 14 of those years as a company officer. I believe the paperwork could use some improvement."

These results address the need to discuss, identify, and understand the gaps in organizational structure, future leadership, and the development of NIMS training. Two thirds of the public safety training officers had similar attitudes and perceptions. Despite similar emergency responder organizational structures, police, and fire departments are separated by institutional cultures. Marietta (2009) wrote that, in organizational culture and leadership, three levels of the culture must be recognized: "(1) visible artifacts, (2) espoused beliefs, values, rules and behavioral norms, and (3) tacit, taken-for-granted, basic underlying assumptions."

In order to collaborate effective interoperability, several key roles need to be held accountable. Executive-managerial level must value the need for understanding cultural diversity. If complex disasters are to be managed effectively, they must be understood. Public safety training officers might assume that interoperability could survive on relationships built on routine call interaction. But emergency responders must recognize that in-depth relationships come only from training together in exercises and simulations. Interaction in those circumstances affords opportunities to develop, trust and execute and review managerial, technical, and team skill sets in realistic settings.

One aspect never mention throughout this paper is the fact that trust and validity must come from emergency responders to NIMS curriculum writers and responders must realize that trust and validity play a vital role in any disaster incident. In general, firefighters are blue-collar workers by nature; large segments of the law enforcement officers are educated to at least an associate's degree. And most of the firefighters are volunteers in rural areas, a far different culture than most NIMS personnel. As a result, many NIMS ideologies fail at the ground level to mid-level through lack of trust and validity. To be effective, NIMS curriculum writers should integrate emergency responders from across the United States to help facilitate the doctrine.

> R24, wrote: "In dealing with this issue from ICS to NIMS for over 20 years now, the biggest frustration is the continued changes and 'mandates' by the Feds. Using plain language sounds great but in a recent article about this issue from IAFC [International Association of Fire Chiefs], there were no less than 20 acronyms used."

These responders provide knowledge, skills, and abilities that cannot be replicated in any other setting. Furthermore, the researcher recommends exploring and developing a mentoring program for future leaders. Further research needs to address accountability at the executive level for noncompliance respondents at the basic level. Researchers believe that an organization such as Insurance Services Office (ISO) can implement a checks and balance program for the accountability issue. Also, FEMA may incorporate a compliance office in conjunction to grant acceptance.

Expanding NIMS framework during a disaster is challenging, considering life safety, property conservation, and the uncontrolled environment place setting. Gaining valuable, unique, and rich experience can happen only on the front line of a disaster. Training future NIMS leaders in a formal mentoring program can reduce culture barriers, promote knowledge, define leadership skills, increase communication, and provide creative thinking. This mentoring program will sharpen leadership, increase effectiveness of NIMS, and contribute to future training programs.

Thomas, Hsu, Kim, et al, (2005) wrote that one of the most critical contributors to a successful disaster response is the efficient and effective performance of NIMS.

"Therefore, it is essential that all institutional disaster preparedness efforts maintain a continuous focus on incident command system (ICS) improvement, including planning, training, and evaluation activities. Although additional experience and refinement is needed, these ICS evaluation methods provide disaster planners with an important new tool" (Thomas, Hsu, Kim, et al, 2005).

Conclusions Based on Findings

NIMS was initiated in order to address the failures in response capabilities to national and natural disasters. This idea and goal are excellent, but respondents did not give NIMS a high grade. The study shows that 40% of the respondents believe that following NIMS leadership under current directives is difficult at best. What NIMS needs is more face-to-face training with on-scene responders to increase the effectiveness of the whole program.

One third of the public safety training officers, those with 20 and more years of service, believe that in general, NIMS is ineffective in a disaster incident. Understanding what Texas public safety training officers believe will improve the adaptability of NIMS to what they perceive and lead to improved curriculum. One third of the public safety training officers, those with less than 7 years of service, believe that NIMS is effective. Given the lack of experience population correlates with the effectiveness of NIMS, the recommendation will be to recruit them to mentor or foreshadow. Public safety training officers should not limit themselves to instructing but to contributing to future training curriculum. Examining this dimension provides experiences, knowledge, and abilities only public safety training officers can contribute. Strengthening interoperability by

using training officers from different disciplines, this cross-cultural training could lead to a better understanding of barriers that impede smooth incident operations.

> R15, wrote: "For NIMS to operate properly all departments, paid and volunteer, have to buy in. Not just paid."

Collaborating exercises are great catalysts for transforming organizational cultures and combining structures that can respond to complex and dynamic disasters. Public safety training officers need to understand that if personnel do not want to participate in interoperability training, organizational cultures suffer the consequences. Forty percent of the respondents believed that NIMS has improved interoperability but, 60% said that talking about interoperability is one thing, but doing it in a disaster incident is a different.

NIMS writers should gear all paperwork and instruction to the lowest level of education to ensure that all responders, volunteer and paid, understand the directions. Writing curriculum at that level is critical to ensure continued NIMS success.

Recommendations for NIMS

Based on the findings in this study, the following recommendations for NIMS were recommended:

1. Improve the curriculum for an incident commander-mentoring program.
2. Develop a network using local rural emergency responders and invite them to participate in an incident commander mentoring program.
3. Collaborate with Department of Homeland Security on NIMS curriculum and training. because members of some departments have created NIMS “cheats” sheet or an easy-to-follow sheet. DHS should develop an easy-to-follow or cheat sheet for NIMS.
4. Develop interoperability field training exercises and drills and do not limit them to fire and law enforcement. Include county agriculture Extension agents, Department of Transportation employees, railroad commission representatives, the Department of Homeland Security, and any other responder who may participate in a disaster.

Recommendations for Further Study

Based on the findings of this study, the following recommendations for further study were recommended:

1. Replicate this study with the Environmental Protection Agency, Department of Agriculture, Department of Energy, Department of Homeland Security and other potential responders to a disaster.
2. Replicate this study with respondents face-to-face to gather more in-depth, rich detail on noncompliance actors.
3. Conduct research on NIMS barriers during the initial hours after the disaster event occurs.

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APPENDIX A

QUESTIONNAIRE

Attitudes and Perceptions of Texas Public Safety Training Officers Regarding the Effectiveness of the National Incident Management System (NIMS)

Questionnaire

The Department of Agricultural Leadership, Education, and Communications at Texas A&M University is conducting a study to better understand the attitudes and perceptions of Texas Public Safety Training Officers regarding the effectiveness of the National Incident Management System (NIMS).

Geographically, some police and fire departments do not have the opportunity to exercise NIMS on a regular base. We are interested in what YOU think about the attitudes and perceptions of NIMS and the effectiveness on the fire ground, large public events, and national and/or natural disasters. Your opinions are very valuable to us because you and people like you are the only source for this information.

The questionnaire is divided into four parts. Please read the directions for each part before responding. All individual responses will remain completely anonymous. It will take you 10-15 minutes to complete the questionnaire. If you have any questions about this questionnaire, please don't hesitate to contact me.

Sincerely,

J.O. "Bear" Wilson
Graduate Student
Department of Agriculture Leadership, Education, and Communications
Texas A&M University
2116 TAMU
College Station, TX 77843-2116
Ph: 713-201-5467
Email: jwilson@aged.tamu.edu

Start Here……

Part I: Attitudes of NIMS Effectiveness

Directions: The purpose of the following section is gauge your opinions in relation to attitudes of NIMS effectiveness on fire ground, large public events, and national and/or natural events. Circle the level of agreement that best describes your attitudes as it relates to each statement.

Use the following scale to indicate your response by circling the number that most represents your level of agreement

1 = Strongly Disagree
2 = Disagree
3 = Neither Agree Nor Disagree
4 = Agree
5 = Strongly Agree

Items	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
NIMS is an effective tool for my department.	1	2	3	4	5
NIMS is easy for me comprehend.	1	2	3	4	5
NIMS is easy to incorporate into standard operating procedures.	1	2	3	4	5
NIMS is easy to place into action at my department.	1	2	3	4	5
NIMS is a favorable tool for my department to use.	1	2	3	4	5
NIMS should be followed at every incident.	1	2	3	4	5
NIMS identifies important command positions.	1	2	3	4	5
NIMS will increase my competence in my job.	1	2	3	4	5
NIMS is easy for my department to comply with.	1	2	3	4	5
NIMS will improve my ability to communicate on scene.	1	2	3	4	5

Continues on Next Page →

Part II: Perceived NIMS Effectiveness

Directions: The purpose of the following section is gauge your opinions in relation to perception of NIMS effectiveness on fire ground, large public events, and national and/or natural events. Circle the level of agreement that best describes your perception as it relates to each statement.

Use the following scale to indicate your response by circling the number that most represents your level of agreement

1 = Strongly Disagree
2 = Disagree
3 = Neither Agree Nor Disagree
4 = Agree
5 = Strongly Agree

Items	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
NIMS is followed at every incident to which my department responds.	1	2	3	4	5
NIMS has allowed me to become a more effective leader.	1	2	3	4	5
NIMS has prepared me to manage an incident.	1	2	3	4	5
NIMS will prepare emergency responders for incident management.	1	2	3	4	5
NIMS has prepared emergency responders to communicate better.	1	2	3	4	5
NIMS has improved emergency responders incident communication.	1	2	3	4	5
NIMS has improved emergency responders interoperability.	1	2	3	4	5
NIMS clearly states who is in charge of an incident.	1	2	3	4	5
NIMS has created a workable incident framework.	1	2	3	4	5
NIMS allows the incident commander to use outside resources.	1	2	3	4	5

Continues on Next Page →

Part III: Proposed Solutions to NIMS Noncompliance Respondents

Directions: The purpose of the following section is gauge your opinions on possible solutions of NIMS noncompliance respondents on fire ground, large public events, and national and/or natural events. Circle the level of agreement that best describes your possible solution as it relates to each statement.

Use the following scale to indicate your response by circling the number that most represents your level of agreement

1 = Strongly Disagree
2 = Disagree
3 = Neither Agree Nor Disagree
4 = Agree
5 = Strongly Agree

Items	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
New incident commanders should have a mentor.	1	2	3	4	5
Deputy incident commander should have a mentor.	1	2	3	4	5
Each agency should be involved with field exercises.	1	2	3	4	5
NIMS can be broken down for civilian understanding.	1	2	3	4	5
A working knowledge of NIMS is a must for all possible responders.	1	2	3	4	5
NIMS should have an easy-to-follow worksheet	1	2	3	4	5
County extension agents should be able to assist civilians with NIMS.	1	2	3	4	5
Increase elected official awareness with NIMS understanding.	1	2	3	4	5
All responders should support an NIMS easy-flow pamphlet.	1	2	3	4	5
Urban county incident commander should assist rural county Incident Command.	1	2	3	4	5

Continues on Next Page →

Part IV: Personal Characteristics

Directions: Please indicate your response to the following questions.

What is your age? _____ Years

What is your gender? *Place an "**X**" by the appropriate response*
_____ Male
_____ Female

How many years have you been a Training Officer? _____ Years

How many times have you been involved with a formal NIMS incident command? _____ Number

Other than NIMS online training, have you had any face-to-face NIMS training? *Place an "**X**" by the appropriate response*
_____ Yes
_____ No

Which of the following best describes your department? *Place an "**X**" by the appropriate response*
_____ Rural
_____ Suburban
_____ Urban

In the space provided below, provide any additional comments you wish to share:

Please return the completed questionnaire in the prepaid return envelope
Thank You for Your Time and Assistance!

APPENDIX B

NOTICE LETTER

April 9, 2009

Training Officer
123 Rivercrest Ln.
Anywhere Tx, 77001

A few days from now you will receive in the mail a request to fill out a brief questionnaire for an important research project being conducted by Texas A&M University.

It concerns the attitudes and perceptions of Texas Public Safety Training Officers of NIMS.

I am writing in advance because we have found many people like to know ahead of time that they will be contacted. The study is an important one that will help state and local officials do a better job providing services and improving the state's quality of response.

Thank you for your time and consideration. It's only with the generous help of people like you that our research can be successful.

Sincerely,

J. O. "Bear" Wilson
Graduate Student
Texas A&M University

APPENDIX C

COVER LETTER

March 17, 2009

Training Officer
123 Rivercrest Ln.
Anywhere, Tx 77001

Hello [Training Officer]

I am writing to ask your help in a study of Texas Public Safety Training Officers for a thesis project at Texas A&M University. This study is part of an effort to learn the attitudes and perceptions of NIMS and how I can condense it to educate agriculture extension agents.

It is my understanding that you are either a Fire department or Police department training officer. I am contacting a random sample of training officers across the state of Texas to ask if they have effectively placed NIMS into action, how well NIMS has worked for your department and whether or not it meets your needs.

Results from the survey will be used to help state and local officials make responding to national or natural disasters flow easier for county extension agents, county judges, etc. By understanding what people want to know when a disaster strikes, public officials can do a better job providing services and improving the state's quality of response.

Your answers are completely confidential and will be released only as summaries in which no individual's answers can be identified. When you return your completed questionnaire, your name will be deleted from the mailing list, and never connected to your answers in any way. This survey is voluntary. However, you can help us very much by taking a few minutes to share your experiences and opinions about NIMS. If for some reason you prefer not to respond, please let us know by returning the blank questionnaire in the enclosed stamped envelope.

We have enclosed a small token of appreciation as a way of saying thanks for your help.

If you have any questions or comments about this study, I will be happy to talk with you. My number is 713-201-5467, email is jwilson@aged.tamu.edu or at the above address.

Thank you very much for your helping with this important study.

Sincerely,

J. O. "Bear" Wilson
Graduate Student
Texas A&M University

APPENDIX D

REMINDER LETTER

April 1, 2009

Two weeks ago, a questionnaire seeking your attitudes and perceptions about NIMS was mailed to you. Your name was drawn randomly from the list of all the Public Safety Training Officers in Texas.

If you have already returned the questionnaire to me, please accept my sincere thanks. If not, please do so today. We are especially grateful for your help because it is only by asking people like you to share your experiences that we can understand how to better serve the citizens of Texas.

If you did not receive a questionnaire, or if it was misplaced, please email me at jwilson@aged.tamu.edu or call me 713-201-5467 and I will get another one in the mail to you today.

Sincerely,

J. O. “Bear” Wilson,
Graduate Student
Department of Agriculture Leadership, Education, and Communication
Texas A&M University
College Station, Texas 77845

VITA

Name: Jason O'Lando "Bear" Wilson

Address: Texas A&M University, Department of Agriculture Leadership, Education, and Communications, 2116 TAMU, College Station, TX 77843-2116

email Address: bear91@tamu.edu

Education: B.B.A., Management, Tarleton State University, 2001
M.S., Agriculture Leadership, Education, and Communications, Texas A&M University, 2009

Posters: Wilson, J., Degenhart, S. H., & Vestal, T. A. (2009). "Non-Commercial Livestock and Poultry Owner Perceptions of CASHN." Poster presented as part of the U.S. Department of Homeland Security, Office of University Programs, Washington DC, 16 March 2009. Abstract published in Oak Ridge Institute for Science and Education. University Network Student Day Abstract Book. Washington D.C.; 2009:72

Experience: Firefighter/EMT, Fire Station 67
City of Houston Fire Department, Houston, Texas
May 2002-Present

Logistics Specialist, Red Team
FEMA/Texas Task Force 1, College Station, Texas
December 2000-Present
Responses: World Trade Center, NY, 2001
Winter Olympics, Salt Lake City, UT, 2002
Hurricane Katrina, LA, 2005
Hurricane Rita, TX, 2005
Hurricane Ike, TX, 2008