THE NEW REALITY: PARTICIPATION OF ELECTED GOVERNMENT OFFICIALS OF THE STATE OF KANSAS IN EMERGENCY MANAGEMENT TRAINING POST SEPTEMBER 11, 2001

by

SUSAN PARKINSON NORTON

B.S., Kansas Newman College, 1995
M.S. Ed., Kansas Newman College, 1997

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Educational Leadership
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Abstract

This study sought to understand reasons for participation and non-participation in national incident management system (NIMS) and incident command system (ICS) training by elected officials in the state of Kansas as well as motivations and barriers to participation in this training. County commissioners and mayors from first and second class cities in the state were the population for this study (n = 202). One instrument comprised of three parts was utilized; a slightly modified version of the Deterrents to Participation Scale (DPS-G) developed by Darkenwald and Valentine in 1984, a slightly modified version of the Education Participation Scale (EPS-A) used by Morstain and Smart (1974) and based on the original work of Boshier (1971), and the third part of the instrument which gathered demographic information.

Findings for the study noted that while there was a self-reported percentage of over 51% completion of NIMS training, the target population may be unaware of the Homeland Security and Kansas Emergency Management parameter for participation and are not in compliance with the emergency management institute (EMI) testing and reporting standards. The question of motivations to participation noted that although the EPS-A showed strong reliability to the target population, upon closer scrutiny the questions did not align for this population as they had for previously surveyed populations. A new version of the EPS for elected officials has been suggested for subsequent studies. The DPS-G was found to be a valid and reliable instrument for the target population. Additional demographic variables of age, rural/urban and time in position were not found to be significant to the participation decision. The possibility of a prediction model for participation was explored through a stepwise logistic regression. The model should be explored further utilizing several factors from the DPS – G (personal problems, lack of personal priority, and lack of confidence) as possible significant barriers. The qualitative responses on the survey noted the high percentage of respondents that had a lack of knowledge or understanding of the requirements or had

questions on availability of the training. Implications and recommendations for the target populations and to the field of study are discussed.

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Major Professor
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Acknowledgements

"It has been said civilization is a race between education and catastrophe."
(U. S. HOUSE OF REPRESENTATIVES, 2005)

There are so many people to thank who have helped me in my completion of this work;

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- The faculty of the Education department at Kansas State University
- Friends and Co-workers over the many long years. I can now say

"yes, I am done!"

Dedication

Figure 1: May 1991 Haysville, KS

This work is dedicated to:

- My parents, Ken and Roberta Parkinson
- My husband, Tim
- My children, Laura, Tim, Scott, Anne and Sam
- My grandchildren
- And all those who serve.

Preface

"We were abandoned. City officials did nothing to protect us. We were told to go to the Superdome, the Convention Center, the interstate bridge for safety. We did this more than once. In fact, we tried them all for every day over a week. We saw buses, helicopters and FEMA trucks, but no one stopped to help us. We never felt so cut off in all our lives. When you feel like this you do one of two things, you either give up or go into survival mode. We chose the latter. This is how we made it. We slept next to dead bodies, we slept on streets at least four times next to human feces and urine. There was garbage everywhere in the city. Panic and fear had taken over."

Patricia Thompson
New Orleans Citizen and Evacuee
Select Committee Hearing testimony
United States House of Representatives
December 6, 2005

CHAPTER 1 - Introduction

"Mayors always rush to the scene of disasters; this is as much a part of the job as submitting budgets and making sure the garbage gets picked up on time. On the day of the attack, the Mayor spoke publicly at least half a dozen times…Each time he spoke, he managed to convey at once grief and resolve, and his presence offered the kind of reassurance so disconcertingly absent in Washington…" (Kolbert, 2001)

"I divided my mission into three parts. First, I had to communicate with the public, to do whatever I could to calm people down and contribute to an orderly and safe evacuation. Second, I wanted to prepare for the injured…The third track I was considering was, 'What will happen next?'" (Guiliani, 2002)

Background

The effectiveness of emergency management initiatives, at least at the local level, was traditionally measured by the perception of successful responses by first responders to weather related incidents (Fagel, 2002). However, several incidents over the last fifteen years have created a new reality for the level to which local elected government officials are and/or should be trained in a variety of emergency management and disaster techniques. The end of the 1990's brought year 2000 millennium planning; the 1993 World Trade Center bombing, the Oklahoma City bombing, and then the attacks at the World Trade Center and the Pentagon on September 11, 2001 (CBS News, 2002) demonstrated the necessity for a change in the way the United States dealt with disasters. In recent months, hurricane season along the Gulf Coast of the United States has brought a level of devastation not seen in decades (Lautenbacker, 2006).

September 11, 2001 changed America forever, (CBS News, 2002) but that day also changed the landscape of emergency management and disaster planning and response. After the destruction of September 11th, the United States government took the emphasis off of natural disaster and weather related preparedness and refocused resources on the war on terrorism (After 9/11, 2002). Since the beginning of the research for this study, another weather-related disaster, Hurricane Katrina, has demonstrated the inadequacies of the government to engage in

preparedness on a broad scale and to understand and manage response and recovery phases of an emergency (U.S. House of Representatives, 2006). Therefore, leadership in the midst of a disaster is not relegated only to first responders such as police, fire, and rescue workers (Drabek & Hoetmer, 1991). Elected officials also must be trained in and demonstrate leadership of emergency and disaster responses (Federal Emergency Management Agency, 2006). Elected officials at the top levels of public service for counties and larger cities must be prepared to step up to the responsibilities of leadership in disaster situations. In fact, many jurisdictions, including the state of Kansas, have adopted home rule in their constitutions (KS const. art. 12, § 5). Home rule speaks specifically to the ability of local governments to be in charge of their affairs. The Kansas constitution states:

> cities are hereby empowered to determine their local affairs and government including the levying of taxes, excises, fees, charges and other exactions except when and as the levying of any tax, excise, fee, charge or other exaction is limited or prohibited by enactment of the legislature applicable uniformly to all cities of the same class.

In essence, Home Rule gives local elected officials the authority to do what they believe is best for their constituents. This becomes evident in times of emergency where the first responders address critical issues of rescue and recovery, and the coordination of services and the decisions necessary to meet the needs of the community are relegated to the local elected officials. The National Governors Association (NGA), in *A Governor's Guide to Emergency Management: Volume 2, Homeland Security* (NGA, 2002), lists the following as potential overall threats to states; natural disasters, bioterrorism, agro-terrorism, chemical terrorism, nuclear terrorism, radiological terrorism, and cyber-attack. Elected officials in the state of Kansas must be prepared to lead the communities they serve through natural disasters, chemical disasters, economic disasters, and acts of terrorism.

The state of Kansas has a long history with natural disasters. Governor Kathleen Sebelius noted in her September 2005 press release, "Here in Kansas, tornadoes, floods, grass fires and other disasters have been a part of our lives since our first days as a territory" (Sebelius, 2005). From 1953 to 2005, the state of Kansas had, on average, 32 declared disasters per year (FEMA, 2006). The average number of governor declared disasters per year in the state of Kansas is five (J.D. Moser, personal communication, February 21, 2006). With each disaster that is declared, the governor can "utilize all available resources of the state government and of each

political subdivision as reasonably necessary to cope with the disaster" (KAN. STAT. ANN. § 48-925(2)). These powers range from deployment of resources and personnel to suspension of regulatory provisions that could hinder the response and recovery of the disaster (KAN. STAT. ANN. §48-925). Due to the commonly held practice of Home Rule (KS const. art.12 § 5) these powers are forwarded to the local governing authority in accordance with their Local Emergency Operations Plan (LEOP). In many non-metropolitan areas, these powers and authority are held at the county level to be used in the best interest of the constituents. County commissioners are given, and must fulfill, the duties laid out in the local emergency operations plan in accordance with Kansas state statutes (KAN. STAT. ANN. § 48-932).

Although there is a provision in the state statutes for immunity from liability during a state declaration of disaster (KAN. STAT. ANN. § 48-915) there is a stated exception for "except in cases of willful misconduct, gross negligence or bad faith" (KAN. STAT. ANN. § 48-915). Kansas tort law would define negligence by the standard of the reasonable man as meaning "unless the actor is a child, the standard of conduct to which he must conform to avoid being negligent is that of a reasonable man under like circumstances" (American Law Institute, 1965). As an elected official in the state of Kansas, a case could be argued that non-participation in emergency management training is considered negligence of duties (Krause, 2003) opening the elected official to personal liability, and their jurisdiction to possible legal action (Hadley, 2003; USGAO, 2006; US HR, 2006).

With the onset of the National Incident Management System (NIMS) enacted in 2004, states must also be in compliance regarding who has been trained and the subsequent level of training in order to be eligible for federal preparedness funding beginning with the fiscal year for 2007 (FEMA, 2005). Currently, all emergency management professionals are required to take courses to maintain competency levels. This will be the first time local elected officials will be required to take training in emergency preparedness (FEMA, 2006). With the onset of NIMS, local elected officials must be trained in the procedures and protocols of the National response system and must be fully aware of their role in emergency management as well as disaster response and recovery. According to the planning standards adopted by the Kansas department of emergency management, the individuals that are ultimately responsible for the safety of the residents in a jurisdiction in the state of Kansas are the current Board of Commissioners for each

county. By not being fully prepared for these roles, local elected officials may not be prepared to fulfill the duties of their offices.

Disaster preparedness, response, recovery and mitigation are global initiatives. Researchers around the globe are working to increase warnings, mitigate issues prior to disasters, and increase the capabilities of first responders and government entities in the response to disasters. Although these issues are global in nature, his study will focus on the directives initiated by the United States Homeland Security Agency as well as the state of Kansas statutes and emergency management directives. Additional research regarding international efforts will be suggested in subsequent chapters.

Recently there has been a shift in the compliance requirements by the federal government as it pertains to local elected officials. There is a new directive from FEMA that lowered the expectations for compliance for training. FEMA redefined compliance (FEMA, 2006) so that local elected officials are integrated into a group for compliance rather than based on individual participation. The training that is currently required for compliance involves the interoperability of different agencies and resources during a disaster as well as the incident command system that is currently in use by emergency managers and first responders, such as police and firefighters. For local 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. Local elected officials must also be aware of what their particular responsibilities are before, during and after the initial disaster. Not understanding their responsibilities before, during and after a disaster can cause financial and physical harm to local elected officials constituents. Decisions made by individual local elected officials during Hurricane Katrina impacted the safety and security of hundreds of constituents (U.S. HR, 2006; U.S. GAO, 2006).

One of the possible barriers to participation is that by the rural nature of the state of Kansas and other states, local elected officials tend to be part-time (Vogelsang-Coombs & Miller, 1999). As Caplan (1998) states in his report to the Kansas Association of Counties;

> More than 80% of Kansas' counties have been declining in population over the past several decades. Furthermore, the availability of 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. (p. 6)

This statement further displays the issues facing the constituents of the state in developing competent leaders in emergency management as well as disaster response and recovery. Because of the far-reaching implications for the people of Kansas, there is a need to analyze the reasons for participation and non-participation in this training by these critically important participants (Vogelsang-Coombs & Miller, 1999).

Understanding why individuals participate is just as important as knowing who is participating. The field of adult education has researched participation in continuing education for four decades (Houle, 1961; Boshier 1971; Cullen, 1998; Boshier, Huang, et al., 2006). Beginning with the work of Houle in 1961, many authors have attempted to answer the questions of who participates in continuing education and why they participate. Initiated by studies of Johnstone & Rivera (1965) and continuing through the multiple studies by the national center for educational statistics, researching participation has been an ongoing process.

Various authors have searched for the answer to this question in general and within certain populations and parameters. Boshier (1971) developed the Education Participation Scale (EPS) as a tool to help gauge motivation for participation. The six factors that Boshier uncovered in his research (social contact, social stimulation, professional advancement, community service, external expectations and cognitive interest) have been the basis for over one-hundred different academic works (Boshier, 2006). Just as relevant to this study will be the research on non-participation and barriers to participation, specifically the work of Darkenwald and Scanlan (1984) and Darkenwald and Valentine (1985) and their development of the deterrents to participation scale (DPS). This study will present an overview of the literature on participation, specifically participation models, in an attempt to give the reader a context for the research from an adult education perspective.

Statement of the Problem

Local elected officials are not prepared for emergency management and disasters at the level to which they need to be for the onset of new federal homeland security mandates and the possibility of liability to their jurisdiction. (Hadley, 2003; U.S. GAO, 2006; U.S. HR, 2006). The current trend to consider compliance from a group perspective rather than on an individual basis should be reversed. Reasons for participation and perceived barriers to participation should be studied to alleviate all possible obstacles to participation by the local elected officials.

Statement of Purpose

The purpose of this study is to examine participation and non-participation of elected government officials in mandated federal national incident management system (NIMS) and incident command system (ICS) training. This study will investigate the reasons individuals choose to participate or not participate in NIMS and ICS training.

Instrumentation

One instrument comprised of three parts was used in this study. Part one was a slightly modified version of the Deterrents to Participation Scale (DPS) developed by Darkenwald and Valentine in 1984. The second part of the instrument was a slightly modified version of the Education Participation Scale (EPS) used by Garst and Ried (1999) and based on the original work of Boshier (1971). Garst and Ried modified the EPS to better reflect the nature of their populations' decisions to participate in continuing education as opposed to decisions regarding participation in initial educational courses. This version is a better reflection of the target population for this study as well, which was the driving factor in the conclusion to use this modified version of the EPS. The demographic questions were used to track survey responses by county/city, rural/urban and completion rates of the NIMS and ICS training at the time of the survey.

Research Questions

The following research questions guided this study:

1. To what extent are local elected government officials in Kansas participating in federally mandated emergency management and disaster training?
2. What are the factors that local elected government officials consider when making the decision to participate in continuing education and emergency management training in the state of Kansas?
3. What are the barriers that effect non-participation of local elected officials in emergency management and disaster training in the state of Kansas?

Significance of Study

Elected government officials in the state of Kansas are not fully prepared to fulfill their duties as leaders for their constituents during disasters in their communities. The current trend by the federal government to authorize compliance as a group rather than as individuals is in error, and each elected official who could possibly have leadership responsibilities in an emergency situation must have national incident management system (NIMS) and incident command system (ICS) training.

In a May 2006 fact sheet on measuring NIMS compliance the following notation was made:

> At the end of FY 05, the states and territories submitted a form attesting that "taken as a whole" they had met the minimum '05 requirements. The "taken as a whole" standard reflects a recognition that not every department or agency, local or tribal jurisdiction, community or individual responder will have completed all the requirements, but, that taken as a whole, most did and that good faith efforts were underway to achieve full compliance. The same "self-certification/taken as a whole" process will be utilized by the NIMS Integration Center for FY06 NIMS compliance activities (FEMA, 2006).

Within a one year period, the compliance for training has gone from 100% for federal funding eligibility to the current situation. Because the federal government cannot mandate that local elected officials take the training, FEMA has reduced the mandatory level of compliance. Under the current standards, there is the possibility of a disaster where the local elected officials who are charged with the welfare of the constituents within their jurisdiction, have no background or knowledge of the resources or inter-operational capabilities at their disposal. FEMA has stated repeatedly that the local jurisdictions should be prepared to handle the first 72 hours after a disaster (FEMA, 2001). Local elected officials need to be effective as leaders and an integral part of the response and recovery processes during these critical hours, not learning what they should be doing to respond.

This initial mandatory training should be the starting point for continued future education and preparedness. Every elected official involved in a disaster can have a significant impact on the response and recovery phases of disasters and thus the ultimate success of any actions taken. Non-compliance in NIMS and ICS training will leave the elected officials at a disadvantage in a

crisis as they will not thoroughly understand their duties and responsibilities during an emergency or disaster. This study will uncover elected officials reasons for participation and non-participation and their perceived barriers to participation in this training.

Assumptions

The assumptions that were made for this study are:

1. That the participants will answer the questions honestly.
2. That no other variables exist that would have a major influence on the outcome of this survey.
3. That the methodology of the study will not adversely affect the outcome of the study.

Limitations

This study had the following limitations:

1. Generalizations will be pertinent to mayors and commissioners only in the state of Kansas.
2. Transferability of the outcomes of this study to other states or jurisdictions cannot be inferred.
3. The outcomes are limited by the natural bias associated with survey research and these instruments.
4. The accuracy of the instruments to measure the outcomes.
5. Since some of the participants may have taken the training prior to the survey, attendance in the training may have impacted their view on the decision to participate.

Definitions

The following definitions were used for this study:

1. Adult education – based upon the work of Johnstone and Rivera (1965) the combined definition for adult and educational activity would be for an individual "age twenty-one or over, married, or the head of a household" who is participates in an educational activity that "would have as its main purpose the desire to acquire some type of knowledge, information, or skill and that it would d include

some form of instruction (including self-instruction)" (as cited in Merriam & Caffarella, 1999, p. 47).

2. Barriers to participation – "factors that deter the general public from participating in organized adult education" (Darkenwald & Valentine, p. 177)
3. Disaster – "a sudden and dramatic emergency" that "significantly interfere with the social life of a large part of the community" (Drabek & Hoetmer, pp. 30, 201)
4. Elected government official – any person who has been elected and sworn in to office.
5. Emergency management training – training that is in accordance with, and supports the National Preparedness Goal and the National Response Plan in accordance with Presidential Homeland Security directives (White House, 2003)
6. First class city – "any city that has attained a population of more than fifteen thousand" (KAN. STAT. ANN.§13-101)
7. Local elected officials - For this study, local elected officials refer to county commissioners and mayors of first and second class cities in the state of Kansas.
8. Rural – population of less than 40 people per square mile (KDHE, 2006)
9. Second class city - "all cities hereafter attaining a population of more than 2,000 and less than 15,000" (KAN. STAT. ANN.§14-101)
10. Urban – population of more than 40 people per square mile (KDHE, 2006)

Summary

This introduction has given an overview of the problem and a brief discussion of the foundations that have brought the United States, and the state of Kansas, to its present position on emergency management training for local elected officials. The following chapter will delve deeper into the literature that serves as the foundation for emergency management and for the federal and state governments' directives on emergency management training. The literature in adult education regarding participation and non-participation in training and educational programming will also be discussed.

CHAPTER 2 - LITERATURE REVIEW

Introduction

> "City officials and private sector leaders cannot assume that Washington will solve their problems. The federal government may eventually offer help, but they are the first – and last – line of defense for their communities." (Riordan & Zegart, 2002)

The purpose of this literature review will be to discuss the landscape in which local elected officials decide to participate in emergency management training. Of primary importance is an understanding of how emergency management evolved and how the state of Kansas currently functions during disasters. An overview of the state of Kansas from a demographic perspective will unveil the rural nature of the state and how it impacts who chooses to run for elected office. The impact of the changes in the requirements for training of local elected officials will be discussed as well as the federal legislation that is driving these changes. The final section of this review will be the literature of participation as it has evolved from the work of Houle (1961) to today's theoretical models of why individuals participate.

Historical Background of Emergency Management

Emergency management, in its current configuration, has come from two distinct policy directions: how to respond to natural disasters and the need for civil defense programs (Drabek & Hoetmer, 1991). While distinctly different, both avenues have shaped the current and future directions of the field.

In ancient times, response to natural disasters was explained as the work of supernatural forces (Tepper, 1999). The field of geomythology attempts to make the connections between geology, mythology and ancient history. Current thoughts in the field point to examples such as the destruction of Sodom and Gomorrah as well as Joshua's victory at the battle of Jericho may indeed be references to earthquakes, while the lost city of Atlantis may be the ancient's explanation for volcanic activity (Tepper, 1999). Although these types of legends and explanations still exist, scientific views have taken the past mythology to the present emergency

management and disaster response activities. These activities have transformed communities from helpless responders to natural forces to proactive mitigates for potential disasters.

The scientific view of disasters has moved the emphasis away from the supernatural and attempted to explain these occurrences through science as well as attempting to shift the response to proactive preventative measures (Drabek & Hoetmer, 1991). Rather than throwing sacrifices in to the volcano to appease the god Pele from eruption, seismologists are concerned with underground seismic activity prior to the eruption (US Department of Commerce, 2006) and advance notice to populations that may be effected by volcanic activity and lava flow.

History of Emergency Management in the United States

Emergency management in the United States is believed to have begun in 1803 after the fire that destroyed a large portion on Portsmouth, New Hampshire. Due to the magnitude of the fire, resources for the community and the state were so strongly taxed that when the legislation of New Hampshire was informed of the severity, they enacted the Congressional Act of 1803, the first instance of national disaster legislation (Drabek & Hoetmer, 1991).

During the Depression, Roosevelt used his new alignment of federal, state, and local agencies to expand projects under the reconstruction finance corporation. Chief among these was the reconstruction of earthquake damaged public facilities and the Flood Control Act of 1936 which erected hundreds of structures to reduce the possibilities of flooding in the United States (Drabek & Hoetmer, 1991). Arguably one of the most important ventures that occurred out of the Roosevelt era was that "during the nation's struggle to escape from the Depression, many state and local governments also initiated emergency management programs" (Drabek & Hoetmer, 1991, p. 7).

Civil Defense

Post World War II, the United States enjoyed a relatively peaceful existence that left civil defense far from the minds of citizens and policymakers alike. Several agencies did studies between 1945 and 1949 on the options for evacuation in times of conflict, but the general recommendation was that civil defense would be undertaken by civilian based organizations (Drabek & Hoetmer, 1991). The detonation of an atomic bomb by the Soviets in 1949 as well as the onset of the North Korean Conflict prompted action regarding civil defense. In 1949, President Truman establishes the Civil Defense Administration. This was in partial response to

the invasion of South Korea by North Korea as well as recognition by the President that the conflict might be prolonged when the People's Republic of China joined the North Koreans in their invasion of South Korea five months later. These events, as well as others, led to the passage of the Federal Civil Defense Act of 1950, which initiated the federal program for planning, coordination and monetary assistance to the states on a national level as well as the initial development of an evacuation and sheltering plan (Drabek & Hoetmer, 1991).

Parallel to these events, a Congressional House committee was being presented with a synopsis of over one hundred separate laws that had been passed since 1803 in which aid had been requested by, and given, to a community following a disaster. The case was made that permanent, general legislation was needed that would allow for federal assistance during a disaster rather than the incident specific method that had been in use. In 1950, the Federal Disaster Act was established:

> to provide an orderly and continuing means of assistance by the federal government to state and local governments in carrying out their responsibilities, to alleviate suffering and damage resulting from major disasters, to repair essential public facilities in major disasters, and to foster the development of such state and local organizations and plans to cope with major disasters as may be necessary (Drabek & Hoetmer, 1991, p. 8).

This legislation was the catalyst for the beginning of federal funding on an ongoing basis for disasters.

The 1960's brought the Cuban missile crisis, and with it the request by Secretary of Defense McNamara for $207.6 million to expand the fallout shelter program (Drabek & Hoetmer, 1991). By the middle of the decade, the problems of the war in Vietnam and civil unrest, as well as inner city rioting, focused the emphasis on civil obedience and took the emphasis away from civil preparedness.

The Current State of Emergency Management

During the 1970's, the shift from personal fallout shelters to crisis relocation planning (CRP) was paramount in the minds of emergency planners as it addressed the relocation of high-risk populations during periods of heightened tensions and was born of the successful evacuation planning prevalent for coastal communities affected by hurricanes. As Drabek and Hoetmer (1991) have noted, "CRP was a precursor of emergency management as it is practiced today" (p. 16).

The actual structure for today's emergency management was enacted by President Carter in 1979 with the creation of the Federal Emergency Management Agency (FEMA) through the execution of two executive orders that combined programming and personnel scattered throughout the government. This restructuring was at the urging of the National Governors Association based upon their research project and other social science research. One of the primary findings of these reports was the articulation of Comprehensive Emergency Management (CEM). CEM was "fully articulated for the first time in the national governor's association report and that would eventually become the cornerstone of the emergency management professions" (Drabek & Hoetmer, 1991, p.18).

Although CEM has been embraced and is still utilized today, emphasis for programs and monetary resources has been a constant source of debate. Today, an Integrated Emergency Management System (IEMS) is used. IEMS "requires that emergency managers complete both hazard and response capability assessments." (Drabek & Hoetmer, 1991, p. 20) In essence, CEM is the conceptual framework for emergency management and IEMS is the plan. Although strides have been made in the planning for response, there continues to be issues to be addressed. In 1991, Drabek and Hoetmer noted that; "despite several federal initiatives in this area and a number of efforts by professional associates, there is no clear consensus on issues such as how training should be funded, who should conduct it, and who should determine standards" (p. 23-24).

Elected officials Perceptions on Readiness

There is still concern on the part of many elected officials regarding readiness of their jurisdictions readiness during a disaster. The United States Conference of Mayors (2006) did a survey of 183 mayors across the United States and Puerto Rico. Answers were stratified into three categories: cities with populations up to 100,000 (104), cities in the 100,001 to 300,000 range (49) and cities of 300,001 or more (30). Since FEMA has repeatedly stated that the first 72 hours of any disaster are dependant upon the local governments (FEMA, 2001), the survey asked "what is your level of confidence that your city is prepared to survive on its own for up to 72 hours immediately following a disaster - natural or manmade?" (U.S. Mayors, 2006). On average, the mayors' response was 6.9 on a scale of 1 being the lowest and 10 being the highest level of confidence. When asked questions regarding a specific incident and the current state of readiness, the responses were less encouraging. The survey included the following question:

> The federal government has already stated that local governments would be largely on their own during the first days and possibly weeks of a pandemic (bird or other) flu outbreak. Is your city prepared to handle such a crisis on its own? (U.S. Mayors, 2006)

Responses from the cities were consistently at the 69% to 70% range for no, indicating that they were not prepared for a pandemic such as bird flu (U. S. Mayors, p. 6). Although all disasters will not be the same as a pandemic flu outbreak, the high percentage of mayors who responded that their jurisdictions were not prepared for this situation brings forth the question as to the general state of preparedness for the county as a whole.

Emergency management in action

While the objective for emergency management is the restoration of normal routines for the communities they serve (Drabek & Hoetmer, 1991) their function is more than just oversight of response during a crisis. Local governments, first responders and local elected officials must deal with two different types of crises; emergencies such as house fires that happen on a routine basis and can be anticipated in their mitigation and recovery, and disasters. Emergencies, in general, are situations that are handled by first responders and local elected officials are usually not directly involved in the response and recovery of these events. Drabek and Hoetmer (1991) define disasters as "a sudden and dramatic emergency" (p. 30) and disasters "are events that significantly interfere with the social life of a large part of the community" (p.201).

Current efforts in emergency management are based on the four phased approach to disasters: preparedness, response, recovery and mitigation. While each phase has decidedly different goals and objectives, these phases are the basic building blocks of an effective response to emergency situations from the local perspective.

The phases of emergency management

Emergency management is based on the comprehensive approach to preparing for, and dealing with, a disaster. Although each situation is different, there are commonalities that can be used to formulate an overall structure to the needs of the community before, during and after an event. These commonalities are not only used to prepare for a disaster, but also to formulate the best methods for practice and to diminish the number of situations where there is the possibility for a disaster. Each of the phases to a disaster have commonalities that can be used across the

spectrum of disasters, thus allowing for an increase in the knowledge of how to prepare, respond, recover and mitigate a community through a disaster.

Preparedness

The principles of preparedness have been established on the understanding of what typically happens during a disaster. Preparedness means having the knowledge prior to the event of appropriate and timely responses (Drabek & Hoetmer, 1991). This will reduce the unknowns during an emergency. The number and selection of possible responses to a specific disaster should be constantly updated to stay abreast of developments in the field and the community. Most importantly, preparedness is based on education. As Drabek and Hoetmer (1991) state; "If a plan is going to work, those involved in emergency response must be familiar with it and must teach other individuals, groups, and organizations what their roles will be" (p. 34).

Drabek and Hoetmer (1991) also note that the cornerstones of emergency management are preparedness and improvisation. Not only are preparation and planning necessary, but individual situations, needed resources and the actual event may change, necessitating the ability to think critically and change direction based on the new set of circumstances. Improvising a solution as the event is unfolding is critical to the successful response to a disaster.

Response

The response phase is a series of decisions that lead a community from the disaster to the recovery phase (Drabek & Hoetmer, 1991). Responding to a disaster must be based on the knowledge of how victims react in a crisis situation (Drabek & Hoetmer, 1991). A key component to the response phase is an understanding that individuals will react actively rather than passively. Victim assistance, damage assessment, communicating with the public, recovery planning and recordkeeping are just as critical to response as mobilizing and coordinating emergency management activities (Drabek & Hoetmer, 1991). The ultimate goals of the response phase is public well being, restoring essential public services in a timely fashion and moving the community to the recovery phase as quickly as possible.

Recovery

Drabek and Hoetmer (1991) define the recovery phase as involving "the restoration – and, in some case, the improvement – of community life"(p.224). Based on a survey of fourteen

case studies of local disaster recovery efforts, Ruben, Saperstein and Barbee (1985) formulated their key elements of the recovery process which can be seen in table 1. The researchers found that the success of the recovery effort may have been done differently in each case, but these elements were always present. These elements were formulated in an effort to act as a resource for local governments.

Table 1 Key elements of the recovery process

Personal leadership	Local decision making
	Priority of intergovernmental relations
	Redevelopment of damaged areas
	Long-range view of rebuilt community
	Ability to marshal internal and external resources
Ability to Act	Availability of state and federal resources
	Reliance on local rather than external resources
	Local administrative and technical capability
	Horizontal and vertical intergovernmental relationships
Knowing what to do	Local knowledge of requirements for state and federal assistance
	Identification of sources of assistance
	Realistic, flexible, and current preparedness plans

Source: Drabek & Hoetmer, 1991, p. 233

Ruben, Saperstein and Barbee (1985) noted that there were three overarching elements to the success of the recovery process. First, local government has to have a leader or leadership ability to make decisions, marshal resources, and lead the way for the community to begin the process. Secondly, local government needed to have the ability to act and take charge of their recovery as well as include any and all assistance that could help with the recovery effort. Finally, local government needed to know what to do to recover successfully. This includes identification of sources for assistance, knowledge of and use of a current preparedness plan, and following the requirements mandated by the state and federal government for assistance. The researchers found that paramount to the rapid, successful recovery from any disaster were effective intergovernmental relationships (Drabek & Hoetmer, 1991, p. 231).

Mitigation

Mitigation is the step that attempts to affect the outcome of disasters before they occur and improves on the outcomes of disasters after they have occurred. FEMA defines mitigation as; “Acting before a disaster strikes to prevent permanently the occurrence of the disaster or to

reduce the effects of the disaster when it occurs. It is also used effectively after a disaster to reduce the risk of a repeat disaster." (FEMA, 1987) In essence, mitigation involves the steps that are enacted to stop, or at least lessen, the effects of disasters.

Drabek and Hoetmer (1991) note that mitigation follows the three steps of "hazard identification, hazard analysis and strategy preparation" (p. 135). There have been several mitigation efforts to identify and reduce the destruction of hurricane related disasters since Hurricane Katrina in 2005, such as the U.S. House of Representatives (2006) report "*A Failure of Initiative: Final Report of the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina*", and the report to President Bush "*The Federal Response to Hurricane Katrina: Lessons Learned*" (White House, 2006). Each of these reports have investigated the response and recovery to the hurricane and given recommendations to be utilized in future scenarios. These examples of mitigation activities as well as the use of building codes, land use management recommendations, risk mapping, safety codes, statutes and ordinances, and public education all are mitigation efforts to minimize the effects of disasters in the future.

Kansas Emergency Management

The current configuration of emergency management for the state of Kansas was created in 1950 during the Cold War as the State Civil Defense Agency. The agency was charged with providing civil defense to protect life and property in the event of nuclear attack. In 1955, the agency became a part of The Adjutant General's Department, with the responsibility of emergency management for all disaster recovery and response activities and their coordination statewide. In 1975, the agency was renamed the Division of Emergency Preparedness, symbolizing its expanded role in preparedness for nuclear and other disaster situations.

Today's Kansas state efforts are known as Kansas Emergency Management (KEM). The agency is responsible for statewide coordination of response at both the state level and through partnership with the federal government. Other responsibilities of the agency include the training of state and local personnel. When not responding to or preparing for emergencies, KEM engages in a Homeland Security role along with the Kansas National Guard. After September 11, 2001, The Adjutant General was named Director of Homeland Security for the State of Kansas, thus expanding the role of the agency from disaster planning and response to preparedness for

potential terrorist threats to the state. Training and exercises have been undertaken to help prepare emergency management personnel statewide to handle emergency situations that include foreign animal disease and bioterrorism. (Kansas Emergency Management, 2006)

Powers of Government during a Declared Disaster

With each disaster that is declared, the governor can "utilize all available resources of the state government and of each political subdivision as reasonably necessary to cope with the disaster" (KAN. STAT. ANN. §48-925(2)). These powers range from deployment of resources and personnel, to suspension of regulatory provisions that could hinder the response and recovery of the disaster (KAN. STAT. ANN. § 48-925). Due to the commonly held practice of Home Rule (KS const. art. 12§ 5), or the ability of local government to rule as they see fit for the betterment of their constituents, these powers are forwarded to the local governing authority in accordance with their Local Emergency Operations Plan (LEOP). In many non-metropolitan areas, these powers and authority are held at the county level to be used in the best interest of their constituents. County commissioners are given, and must fulfill, the duties laid out in the LEOP in accordance with Kansas state statutes (KAN. STAT. ANN. § 48-932).

Statistical Possibilities in the State of Kansas for Disasters

In the state of Kansas, most of the response to disasters are tornado related (Kansas Adjunct General Report, 2001). With highly rural demographics, there is also the opportunity for disasters of an agricultural nature that must be mitigated and possible response plans prepared.

While Kansas averages 47 tornadoes per year, the state experienced 64 tornadoes in 1999, 59 tornadoes in 2000, and 101 tornadoes in 2001" (Kansas Adjutant General, 2006, p. 12). From 1953 to 2005, the state of Kansas had, on average, 32 declared disasters per year (FEMA, 2006).

While tornados cause considerable damage, many of them are handled on a local level. When the local resources are stretched beyond their capability, local elected officials request assistance from the state government (Drabek & Hoetmer, 1991). The assistance is set in motion by a declaration of disaster by the governor (Emergency Preparedness for Disasters, KSA 48-924 § 1). The average number of governor declared disasters per year in the state of Kansas is five. (Joy D. Moser, personal communication, February 21, 2006)

There is also the distinct possibility of agroterrorism in Kansas. The *Governor's Guide to Emergency Management* (National Governors Association, 2002) reports that there have been twenty-one incidents of nonstate-sponsored agroterrorism in the last century. Five of these incidents were in the continental United States, and although these cases have, historically, been created to inflict economic havoc, that assumption is probably no longer valid (USGA, 2002).

Undoubtedly, the largest impact to the state of Kansas could be agroterrorism to the livestock industry. The Kansas Livestock Association notes the following statistics (2006); as of January 1, 2006, Kansas was ranked second nationally with 6.65 million cattle on ranches and in feedyards. These numbers reflect a ratio of 2.5:1 cattle to humans in the state. Kansas also ranks first nationally in commercial cattle processing and second in fed cattle marketed. Cattle represented $6.09 billion in cash receipts in 2005 (Kansas Livestock Association, 2006). Mitigation efforts for an outbreak have been noted by the Kansas Livestock Association and the Kansas Animal Health Department in the following directive:

> If an outbreak of foreign animal disease happened in your county, your county would have to be first responders until State and Federal help could arrive, which would probably take 24 hours or more. So it is crucial for getting the disease under control, that your county have a committee and a plan ready to activate immediately. (Kansas Animal Health Department, 2006)

Depending on how widespread the foreign animal disease outbreak occurs, twenty-four hours could become much longer. Agroterrorism has the possibility of causing multimillion dollar losses to the states revenue. Counties and emergency responders must have plans in place to contain and stop these types of outbreaks.

The agricultural communities of the state are not the only areas at risk. Of increasing concern to emergency management and first responders is the possibility of chemical spills by rail and/or truck. A recent report in the Wichita Eagle, Sylvester (2006) noted that: "a Sedgwick county report showed more than 20,000 rail cars, each containing 100,000 pounds of hazardous material, roll through Mulvane each year. More than 100 million tons of toxic and dangerous materials come through the Wichita area in trucks." The amount of hazardous and toxic materials traveling the rails and highways of the state of Kansas is opening Kansas communities to the constant threat of disaster.

The State of Kansas –A Demographic Perspective

The state of Kansas is predominately rural by nature. Merriam - Webster (2006) defines rural as "of or relating to the country, country people or life, or agriculture." Although there is not one agreed upon definition of rural the characteristics of the majority of the state are consistent with the most common definitions of rural. Kansas, by land mass, is rural with 83.8% of the counties having forty or less persons per square mile. This brings certain issues to bear in the development and execution of emergency management training as well as the elected officials who are charged with participating in the training and serving in a leadership position during a disaster. To decide on the predominate demographic definition for the state one must first look at the subject of rural as it pertains to Kansas.

Rural Nature of the State

Rios (1988) notes that finding an agreed upon definition for the term rural is a problem that is not easily solved. Rios notes that in the analysis of 178 sources, the term of rural was either not defined, defined from internal quantitative definitions, or external data, such as census information (Rios, 1988). An argument can be made for the use of both a quantitative as well as a qualitative definition of rural.

Rural –A Quantitative Definition

Utilizing census information as a methodology for rural, the 2000 census defined the state of Kansas as 28.6% rural in population (US census bureau, 2006), but predominately rural in land mass (Table 4.2). The census bureau defines rural as "as 50,000 people and below (NACO, 2006). With this definition, 95 of the 105 counties in the state of Kansas are considered rural as of the 2004 census (NACO, 2006). Using the counties as a boundary 90% of the state of Kansas could be considered rural with approximately 29% of the population residing in these 95 counties.

Rural – A Qualitative Definition

Rios (1988) notes that several authors have looked at different socio-economic factors to define rural. Bosak and Perlman (1982) found that of the 178 sources they reviewed regarding rural sociology and rural mental health, qualitative definitions included criteria on occupation,

education, income level, values, isolation and government. Of these definitions, none was noted in more than 11% of the total sources reviewed.

Population Density Definitions

Another methodology that has been used in Kansas is the Kansas Department of Health and Environment (KDHE) survey on behavioral risk factors (KDHE, 1998). During the years of 1992-2004, KDHE did a telephone survey on health risk behaviors from a rural perspective. Their definitions for population density for the purpose of this study are noted in table 2. KDHE grouped the population in to five categories: frontier, rural, densely-settled rural, semi-urban and urban.

Table 2: KDHE population density stratifications for state of Kansas

Categories	**Definition of Designations**	**Number of counties in the state of Kansas**
Frontier	Less than 6 persons per square mile	31
Rural	6 to less than 20 persons per square mile	38
Densely-settled Rural	20 to less than 40 persons per square mile	19
Semi – Urban	40 to less than 150 persons per square mile	12
Urban	150 + persons per square mile	5

As noted in table 2, thirty-one of 105 counties are frontier with less than six persons per square mile, 38 of 105 counties have between 6 and 20 persons per square mile, and 19 of 105 counties are considered densely-settled rural having between 20 and 40 persons per square mile. This leaves just 17 out of 105 counties in the state that are considered semi-urban to urban with over 40 persons per square mile. Utilizing this methodology, the state has 83.8% of the counties in frontier, rural or densely-settled rural status. These numbers are noted in a different fashion in table 3. In this table, KDHE divides the states along the population lines and compares the 2000 population census numbers to the land area where that population resides. These numbers are compared to give a corresponding population density per square mile figure for the urban/rural comparisons.

Table 3: KDHE population density percent to total for state of Kansas

County	2000 Population	Land area square miles	Population density persons per square mile
total	5374446	163647	4886
Urban/semi-urban (urban)	1865453	11274	3777
Rural/densely rural/ frontier (rural)	3508993	152373	1109
% rural to total	65.29%	93.11%	

Table 3 demonstrates that when each county is stratified in the urban, semi-urban, densely rural, rural and frontier categories and aligned with their 2000 census population, almost two-thirds of the states counties are considered rural. If one aligns the land area in the same stratifications, 93% of the geographic state has a rural population, with two-thirds of the states population residing on 7% of the land. Although there are more people living in rural areas, they are spread over a considerably larger area.

The rural nature of the state can also be demonstrated visually in figure 2. This map is a visual depiction of the census definition of rural as used in the 2000 census by the federal government.

Figure 2 2000 Census Definition of Urban/Rural

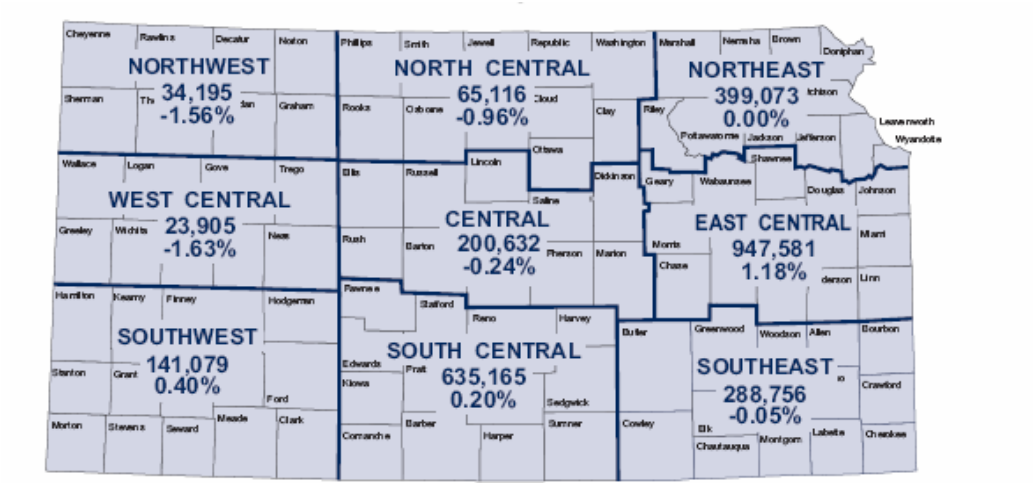
Source: U. S. Census bureau (2006) 2004 area by state http://factfinder.census.gov

Figure 2 visually depicts the clustering of populations in the state along major highways as well as within the major metropolitan areas. The census and KDHE are in agreement on the population density for the state. Although different methodologies were used, each agency has come to the same conclusion that the population of the state of Kansas is rural.

The Population of Kansas Demographics

The population of the state of Kansas not only has a decided rural density, but it also has other relevant rural characteristics. The population of the state is projected to grow at a much slower rate than the United States as a whole (US Census, 2006). Predictions of growth from the 2000 census were that the state would grow at a rate of 1.7% compared to the United States overall growth prediction of 4.3% (U.S Census, 2006). Figure 3 is a visual depiction of the percentage of change from the 2000 census to July of 2004.

Figure 3 Population of Kansas by Region, July 1, 2004 and Percent of Change

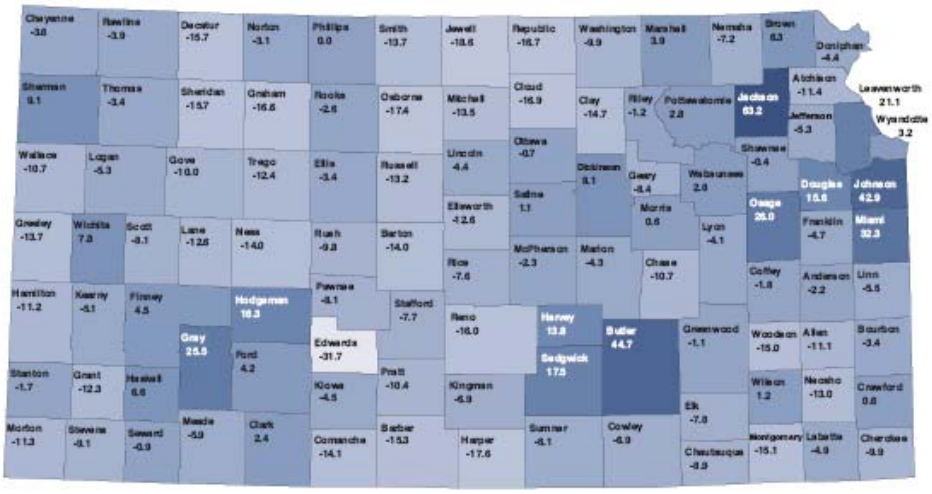


Source: Policy Research Institute, data from Kansas Division of the Budget, January 2005

While much of the state stayed relatively the same, the northwestern, west central and north central regions lost close to one percent of their populations in a four year span and the east central quadrant gained over one percent in the same time period.

Figure 4 shows the predicted percentage of population change in Kansas from 2000-2025.

Figure 4 Projected Percent Population Change in Kansas 2000-2025



Source: Policy Research Institute, data from Kansas Division of the Budget, January 2005

These predictions, based on data from the Kansas division of the budget, note that the highest areas of growth are predicted to be the east central region, specifically Jackson, Johnson, Miami, Douglas and Osage counties with Jackson county predicted to have the highest increase at 63.2%. Johnson County is predicted to follow closely behind Jackson County in growth with a 42.9% increase in population. Both of these increases will have a significant impact on the urbanization of the east central region. The south-central region led by Butler, Sedgwick and Harvey counties, are predicted to increase with Butler County leading the growth at 44.7% increase. The Southwestern region, including Geary, Ford, Finney, Hodgeman and Haskell counties, will also show more modest growth. The areas that are predicted to have the highest projected population loss are the northwest quadrant with over 15% losses and the west central quadrant with an average loss of 10%. These predictions mirror the trends from 2000 to 2004 seen in figure 3 and verify the trend of migration to urban and semi-urban areas of the state.

Another demographic area of interest is that the state is less racially diverse than the nation as a whole (US Census, 2006). During the 2000 census, 83.1% of the population of the state was noted as “white persons, not of Hispanic/Latino origin” where the percentage of the same designation for the nation as a whole was 69.1% (US Census, 2006). The census also reported that the travel time to work was less in Kansas (19 minutes vs. 25.5 minutes) and that there are fewer people per square mile in the state than in the nation as a whole (32.9 vs. 79.6).

Stratification of Cities

Cities in the state of Kansas are stratified by size based upon state statues. Cities of the first class are defined as "any city that has attained a population of more than fifteen thousand [15,000]" (KAN. STAT. ANN. § 13-101). Cities of the second class are defined as "attaining a population of more than 2,000 and less than 15,000" (KAN. STAT. ANN. § 14-101) Currently the state of Kansas has 203 classified cities of which 22 are class one cities, and 107 are class two cities.

Although the state powers are forwarded to the counties during a disaster (KAN. STAT. ANN. § 48-932) how a disaster is handled is dependant on the Local Emergency Operations Plan (LEOP). LEOP's for class one and class two cities can have the mayor designated as the local elected official in charge. In unincorporated areas or cities of class three designation (less than 2000 residents) the county commissioners are the local elected officials in charge during an emergency.

The local elected official

The local elected official holds a pivotal role during disasters. Table 4 notes FEMA's recommendations for responsibilities during the response function. As the individual who is to have a primary role for direction and control of the response to a disaster, how a local elected official responds during the crucial first 72 hours after a disaster can affect loses of services, property and lives.

Drabek and Hoetmer (1991) have noted that "one of the tenets of national preparedness planning is that the nation's ability to respond to and recover from a national emergency is, in large part, a function of how effectively problems can be managed at the local level" (p. 35). As the lead official during a local disaster, local elected officials must be ready at all times to direct the efforts of multiple organizations and volunteers as well as understand the command structure to interface with state and, possibly, federal agencies.

Another issue affecting the local elected official is the need to develop their governance proficiency for the betterment of their communities in emergency situations as well as during normal operations (Vogelsang-Coombs & Miller, 1998). Vogelsang-Coombs and Miller (1998, 1999) used the human performance improvement (HPI) framework in their work with the Local Officials Leadership Academy at Cleveland State University in Ohio to develop a curriculum to

address the learning needs of this group of elected officials. The Academy was structured for local elected officials and senior administrators to learn together and to work collaboratively on leadership and management skills. Vogelsang-Coombs and Miller (1999) found that the training of the local elected officials accomplished the stated goals of the training, which were to "build coalitions, engage in collaborative problem solving, and improve their communication and decision-making" (p. 13). These goals are in alignment with the leadership skills noted by Drabek and Hoetmer (1991) and verified by Flin (1996) that paramount to the rapid, successful recovery from any disaster are collaboration, problem-solving and effective intergovernmental relationships.

In their work on the training needs of local elected officials, Vogelsang-Coombs and Miller (1999) noted the five predominant reasons that local elected officials chose not to develop their governance capacity. First, most elected officials serve their cities on a part-time basis. This restricts the amount of time available for training due to obligations from full-time employment, family obligations as well as obligations from constituents and serving their community.

Second, there is resentment by local elected officials that they need training (Frederickson, 1989). These individuals are elected because of who they know and who knows them, not for their expertise. Yet, training initiatives must be given that do not diminish the elected officials in the eyes of their constituents.

Third, local elected officials become overwhelmed by the technical complexity of the public issues confronting municipalities (Svara, 1999). This can be seen especially in the complex financial issues, such as bond revenue, grant funding and mill levies, that municipalities must use to run their operations and programs. The complexities of the national response plan (NRP), the incident command system (ICS), and the national incident management system (NIMS) will also fall in to this area for most, if not all, local elected officials.

Fourth, local elected officials tend to manage issues that are of interest to the constituents and do not spend time leading their jurisdictions. Most local elected officials are elected based on their ability to represent and respond to their constituents views. Their view their success as elected officials on whether or not they are reelected to their position. Rather than taking a leadership view of governance, most local elected officials focus on specific issues rather than broad policy and leadership.

Finally, opportunities for training and development for local elected officials may not be sufficient. Local elected officials in the state of Kansas have training available through the Kansas Association of Counties and the League of Kansas Municipalities. Currently, the emphasis of these courses is not on the leadership necessary during a disaster.

Satisfaction Levels of Constituents

One of the primary concerns for a LEO during a disaster should be the welfare of their constituents. In the state of Kansas, the county commissioner code of ethics speaks to the welfare of constituents being among the top priorities (KCCA, 2003). As the chief elected, the decisions that will impact constituents and their lives must be done in a well informed environment. As Drabek & Hoetmer (1991) in their discussion on preparedness noted, "Research indicates that the public assumes that preparedness efforts are being undertaken. When disaster strikes an unprepared community, the rage residents often express may reflect a feeling of betrayal." (p. 22)

Hoisington, KS April, 2001

In the recent past, information has come to the light concerning a community's local elected officials that did not fulfill this responsibility, or they have not managed the staff correctly that have fulfilled the assigned duties. The following example of the Hoisington, KS tornado of 2001 is just that type of scenario.

On April 21, 2001 a tornado struck Hoisington, a second class, central Kansas town of about 3000. The damage path was six blocks wide and two miles long (Paul & Leven, 2002). Damage from the storm was in excess of $43 million in property damage affecting 569 residents with 182 structures totally destroyed. Approximately 45% of the community sustained some damage (Paul & Leven, 2002). After the recovery, the natural hazards research and applications information center at the University of Colorado, Boulder commissioned a report on the satisfaction levels of the constituents involved in the disaster. Paul and Leven (2002) found through this report that of the four sources of assistance studied (government agencies, private insurance companies, volunteer organizations, business communities) government agencies received the lowest rating. While the dissatisfaction was across numerous agencies, there were notations in the report of frustration with the leadership of the city of Hoisington who would have been the local elected officials on the scene of the disaster. Paul and Level wrote,

> Nearly half of the respondents expressed their dissatisfaction with the city of Hoisington. They indicated they felt that the city was not disclosing the true amount of money received as aid from various sources because they suspected that the city was making a profit from the tornado. Additionally, new zoning regulations were imposed after this tornado event, making it extremely difficult and expensive to relocate in Hoisington. According to comments of some respondents, the regulation was not uniformly implemented – the city waved the rule for the rich (Paul & Leven, p. 9).

Dissatisfaction with the way the response and recovery functions were handled were just part of the problem. While the information on zoning and relocation issues may be anecdotal, when it comes to the suspicions regarding payments to the city, concerns were also raised in the audit of the disaster. Information contained in the Department of Homeland Security, office of Inspector general audit report on the disaster (Hadley, 2003) states that of the over $1.7 million dollars of federal assistance claimed, $262,015 were considered questionable costs. These questionable costs were for infractions ranging from "unsupported and ineligible volunteer credits, excessive and unreasonable costs, unsupported contractor labor costs, work not related to the disaster, unallowable markups on contract costs, unsupported contractor equipment costs, unsupported force account labor, duplicate benefits, and unsupported force account equipment and material" (Hadley, p. 2). The report also questioned over $779,000 worth of contracted construction services stating that "fair and open competition (for the contracts) did not occur and FEMA had no assurance that contract costs were reasonable" (Hadley, p. 2). The recommendation of the audit was to disallow over $200,000 worth of FEMA requested funds.

As a class two city, the Hoisington city government was charged with initial response for the disaster and recovery. As part of the recovery effort, record keeping and requests for federal assistance after the disaster would have fallen to the city government.

Current Necessity of Training in a Post 9/11 World

"If 9/11 was a failure of imagination, then Katrina was a failure of initiative. It was a failure of leadership" (U.S. House Report on Katrina, 2006)

After the events of September 11, 2001, President Bush and Congress passed the Patriot Act in October of 2002 (White House, 2001) giving broad authority to the government in the war on terrorism. Days after the adoption of the Patriot Act, President Bush began a series of

Presidential Homeland Security Directives (HSPD) that were to "record and communicate presidential decisions about the homeland security policies of the United States" (White House, 2001). While each directive establishes policy on varied areas of national defense (table 8) directives five and eight are directly related to emergency management and disaster response.

Presidential Directive Five (HSPD-5) was released in February of 2003 and initiated the development and establishment of a National Incident Management System (NIMS) and well as the National Response Plan (NRP) (White House, 2003). Compliance to HSPD-5 was noted in the directive by the following:

> Beginning in fiscal year 2005, federal departments and agencies shall make adoption of the NIMS a requirement, to the extent permitted by law, for providing federal preparedness assistance through grants, contracts, or other activities. The Secretary shall develop standards and guidelines for determining whether a State or local entity has adopted the NIMS (White House, 2003).

HSPD-5 directs Homeland Security to adopt NIMS as the standard for the federal government as well as directing the development of the standards of compliance for state and local communities. These standards of compliance are directly tied to federal assistance dollars through grants and federal contracts.

In December of 2003, Presidential Directive Eight (HSPD-8) initiated the development and establishment of a national preparedness goal. The directive gives a definition for preparedness; "The term 'preparedness' refers to the existence of plans, procedures, policies, training, and equipment necessary at the Federal, State, and local level to maximize the ability to prevent, respond to, and recover from major events" (White House, 2003). Sections 17-19 of the directive (figure 13) speak specifically to training and exercises. In each of these directives grant funding and national preparedness are tied to training and compliance to the training.

National Incident Management System

In March of 2004, the Department of Homeland Security, acting upon HSPD - 5, issued the National Incident Management System (NIMS). NIMS is a framework that outlines how various agencies coordinate during incidents. 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). In its position paper, FEMA (2004) noted that NIMS was put in place as a "balance between flexibility and standards" (p. 2). As such, NIMS is a method to coordinate various jurisdictions and entities using one common set of operating standards.

Incident Command System

As part of the NIMS effort, the Incident Command System (ICS), which was originally developed by several California governmental entities in the early 1970's, was adopted as the standard for response command during emergency responses (FEMA, 2004). The adoption of ICS as a standard was a recommendation of the National Commission on Terrorist Attacks. ICS gives a structure to response command by varied entities and allows individuals to know when to use ICS as well as the delegation of tasks, accountability and authority during an incident (FEMA, 2005). Components of ICS involve common terminology within organizations, chain of command, integration of communications, resource management, incident action planning, as well as pre-designation of incident mobilization centers and facilities (FEMA, 2004).

Critics of NIMS and ICS have stated that believing that adoption of these standards will automatically improve the effectiveness of emergency response is questionable (Tierney, 2005). Tierney (2005) also believes that ongoing contact, communication, mitigation, training, and public education programs are just some of the other factors that impact the successful preparedness and response to disasters.

Current Requirements for NIMS and ICS for Elected Officials

In April of 2005, Governor Kathleen Sebelius enacted executive order 05-03 that established NIMS as the state standard for incident management. This executive order was in compliance with the standing Homeland Security Presidential Directives (HSPD – 5, 2003). By doing so, Governor Sebelius extended the federal requirements for NIMS and NIMS training to the state level. Requirements for training for elected officials have been stated by FEMA on the NIMS web site. According to FEMA (2006),"Elected officials who are directly involved in emergency operations must have IS-700, NIMS: An Introduction, ICS – 100 and ICS – 200. Otherwise, at the minimum, local chief elected and appointed officials should complete IS-700" (FEMA, 2006). The IS-700 NIMS: An Introduction course is delivered utilizing the course objectives and methods developed by FEMA in accordance with HSPD – 5. The course is designed to introduce NIMS and "explains the purpose, principles, key components and benefits

of NIMS. The NIMS provides a consistent nationwide template to enable all government, private-sector, and nongovernmental organizations to work in concert during domestic incidents" (FEMA, 2006).

Although the minimum requirement is stated as IS- 700 NIMS, there tends to be some debate as to where a local elected officials fall in the overall compliance issue. According to the NIMS Integration Center (FEMA, 2005) the training guidelines for the fiscal year 2006 requires command and general staff to have IS-700 (NIMS), IS – 800 (National Response Plan), ICS – 100 (Introduction to Incident Command System) and ICS – 200 (Basic Incident Command Systems). IS-800 National Response Plan is training that addressed "how resources of the Federal Government will work in concert with state, local, and tribal governments, as well as the private sector to respond to incidents of national significance" (FEMA, 2006). IS 100 – Introduction to Incident Command System training is the foundational course for understanding of the command system. Its overall objective is to describe "the history, features and principles, and organizational structure of the Incident Command System" (FEMA, 2006). It also puts the interrelationship of the Incident Command System and NIMS into perspective. IS 200 – Basic Incident Command Systems is "designed to enable personnel to operate efficiently during an incident or event within the Incident Command System" (FEMA, 2006). FEMA also states that this course "provides training on and resources for personnel who are likely to assume a supervisory position within the ICS" (FEMA, 2006).

According to the FEMA designation of responsibilities for response functions (Table 13) the chief executive official has the primary responsibility for direction and control. Depending on the local emergency operation plan (LEOP), in the state of Kansas the chief executive could be either a mayor, chairman of the county commission, or another designee of the governing body. Each LEOP may be different and specific to the jurisdictions involved.

Compliance with the standards is due by the end of fiscal 2006, or October 1, 2006, for eligible funding for federal grant assistance. A listing in August 2005 of federal preparedness grant programs as reported to the Department of Homeland Security through the NIMS integration website (FEMA, 2005) noted eleven different government agencies and sixty-one different programs that should be effected by non-compliance.

In a May 2006 fact sheet on measuring NIMS compliance (FEMA, 2006) the following notation was made:

> At the end of FY 05, the states and territories submitted a form attesting that "taken as a whole" they had met the minimum '05 requirements. The "taken as a whole" standard reflects a recognition that not every department or agency, local or tribal jurisdiction, community or individual responder will have completed all the requirements, but, that taken as a whole, most did and that good faith efforts were underway to achieve full compliance. The same "self-certification/taken as a whole" process will be utilized by the NIMS Integration Center for FY06 NIMS compliance activities (FEMA, 2006).

Within a one year period, the compliance for training has gone from 100% for federal funding eligibility to the current situation. Because the federal government cannot mandate that local elected officials take the training, FEMA has reduced the mandatory level of compliance. Under the current standards, there is the possibility of a disaster where the local elected officials who are charged with the welfare of the constituents within their jurisdiction, have no background or knowledge of the resources or inter-operational capabilities at their disposal. FEMA has stated repeatedly that the local jurisdictions should be prepared to handle the first 72 hours after a disaster (FEMA, 2001). Local elected officials need to be effective as leaders and an integral part of the response and recovery processes during these critical hours, not learning what they should be doing to respond.

Another area of concern with the reduction of the compliance level is with liability. The Kansas state statutes have a provision specific to county commissioners that address failure to perform the duties of the position. The statutes state:

> Any board of county commissioners, or any county commissioner, or county clerk, who shall violate any of the provisions of this act, or neglect or refuse to perform any duty herein imposed, shall be deemed guilty of a misdemeanor, and upon conviction thereof in a court of competent jurisdiction shall be subject to a fine of not less than ten dollars nor more than ten thousand dollars, and shall, moreover, be removed from office (KAN. STAT. ANN. § 19-243).

With the ambiguity surrounding the need for training for local elected officials, a case could be discussed where the local elected officials, and the county commissioners in particular, could be opening themselves up for possible legal actions for not fulfilling their duties under presidential and state homeland security directives.

A recent example of non-participation happened in May of 2006. Kansas Emergency Management sponsored a classroom option for delivery of the course that gives the overview of how organizations work together during a disaster (IS – 700 NIMS). This training was to be broadcast on Thursday, May 4, 2006. The broadcast was to be delivered from a host site in Topeka, Kansas over the Kan-Ed interactive television network from 9:00 am to 1:00 pm with the post assessment exam scheduled from 1:00 to 1:30 pm (Kansas Emergency Management, 2006). Although there was no reimbursement from Kansas Emergency Management for travel expenses, the course was offered free of charge. This is the course that is universally agreed upon as the minimum course that must be taken for local elected officials and all personnel that respond to disasters. The course was simulcast to sites in Girard, Oakley, Sabetha, Salina, Sublette, and Wichita. This offering of the IS – 700 NIMS was canceled due to low enrollment.

The role of local elected officials in the emergency management process is critical to the successful response and recovery of a disaster. Their position of leadership during a disaster is crucial and their base of knowledge to respond to the disaster, particularly in the critical 72 hour period directly following a disaster, is pivotal to whether they are a leader for their community or a hindrance to the response and recovery efforts. Under the current directives and recommendations, why are local elected officials not participating in this training?

Participation in Continuing Education

Participation is one of the areas in the field of adult education that has been extensively studied and explored (Merriam & Caffarella, 1999). Although much work has been done in this area, the majority of the research has been done on specific populations of interest to the researcher (Cervero & Yang, 1994; Cullen, 1998; Garst & Ried, 1999; Bates & Norton, 2002). Although the field has multiple authors on participation, very little has been written on participation by elected officials in continuing education. The work that has been done does allow for some explanation of why adults, in general, do participate. The questions of who participates and why do they participate will be explored as well as numerous models for participation that have been developed.

Who Participates?

Answering the question of who participates in adult education has been undertaken by many researchers over the years (Morstain & Smart, 1974; Boshier & Riddell, 1978; Robinson-

Horne & Jackson, 2002). The baseline for this question is the study that Johnstone and Rivera(1965) did for the Carnegie Corporation on the nature of adult education in America. Through this study, the researchers were attempting to:

> describe participation in formal and informal educational activities; assess attitudes and opinions held by adults concerning education; describe the organizations delivering adult education in a typical urban community; focus on the educational and work experiences of young adults aged seventeen to twenty-four (Merriam & Caffarella, 1999).

As Merriam & Caffarella (1999) note, Johnstone and Rivera struggled with the definition of adult and educational activity that would address formal educational activities as well as self-directed endeavors. The study used the parameters for adult of "age twenty-one or over, married, or the head of a household" (Merriam & Caffarella, 1999). Their working definition for educational activity "would have as its main purpose the desire to acquire some type of knowledge, information, or skill and that it would include some form of instruction (including self-instruction)" (Merriam & Caffarella, 1999).

Under these parameters, Johnstone and Rivera found that their random sample of nearly twelve thousand households nation-wide could be estimated to have a twenty-two percent participation rate. They also found that during this study, the participation was largely to acquire a new skill rather than in academic pursuits. Their definition of the adult learner was stated as:

> The adult education participant is just as often a woman as a man, is typically under forty, has completed high school or more, enjoys an above-average income, works full-time and most often in a white-collar occupation, is married and has children, lives in an urbanized area, but more likely in a suburb than large city, and is found in all parts of the country, but more frequently in the West than in other regions (Johnstone & Rivera, 1965).

Their profile of the typical adult learner has been quoted by many (Garst & Ried, 1999; Merriam & Caffarella, 1999; Boshier, Huang, Song & Song, 2006) and is still considered valid today. As the first study of its kind, Johnstone and Rivera did open an avenue for the continued work of others in an attempt to explore the questions surrounding participation.

Beginning in 1969, the National Center for Education Statistics (NCES) began a longitudinal study of participation in adult education. In 2002, NCES authored a statistical analysis report on participation trends and patterns in adult education from 1991 to 1999 (U. S. Department of Education, 2002). In the NCES studies, respondents were asked about their

involvement in the following categories; "English as a second language programs; adult basic education (ABE) programs, general educational development (GED) preparation, adult high school programs; credential programs; apprenticeship programs; job or career-related courses; and personal development courses" (U. S. Department of Education, 2002). These categories are courses that may not be offered in a collegial setting, but still fulfill adult educational needs. Participation in these courses would give a better understanding of the true picture of participation when teamed with traditional college/university programs.

In the years prior to 1991, the NCES studies found that part-time participation had been on the rise (Merriam & Caffarella, 1999). The analysis report for 1991-1999 noted that "overall increase in participation in adult education between 1991 and 1999 was widespread, occurring among virtually every group of adults examined in this report" (U. S. Department of Education, 2002). Cautions were noted, though, as "retired adults participated at a lower rate than those in all other labor force groups" as well as "a closer look at participation in specific activities reveals some troubling signs of groups left behind – especially Hispanics, those with lower levels of education, those with lower status jobs, and those who are employed part time" (U. S. Department of Education, 2002).

Tough (1999) has studied participation from a self-directed perspective, but his findings on why people participate in work related self-directed learning noted that individuals wanted to do a task better at work. Tough noted that individuals noted that they could perform the needed task, but they wanted to improve their skills. Tough noted in his speech that "so it's very interesting to me that it's not that people learn because they can't do it without learning, they learn in order to do a good job, that's the common reason" (New Approaches to Lifelong Learning, 1999, p. 7).

Why do Individuals Participate?

Uncovering the reasons that individuals participate in adult education has proven to be a more difficult task than finding out who participates. Several approaches have been used to reveal this information. The aforementioned surveys have asked respondents reasons for participation. The other two approaches that have relevance to this study are motivation of the learner to participation and barriers to participation by groups of learners.

Of note to this discussion is the connection between job-related motives and participation. Many studies have confirmed that job-related motives are the most commonly cited motivations to participate (Merriam & Caffarella, 1999). When asked for motivation beyond the primary reason, "most respondents report multiple reasons" (Merriam & Caffarella, p 51). Although jobs and furthering careers take a primary position, what other factors are relevant to the decision to participate must be explored to truly understand the arena of motivation.

Houle's Motivational Orientation of Learners

In 1961, Houle initiated the discussion of motivation factors that lead to participation in adult education with his work *The Inquiring Mind* (Houle, 1961). Houle did interviews with twenty-two individuals with the hope that "these people and their activities could somehow be fitted together into patterns that would throw light on the meaning of continuing education" (Houle, p. 14). The study was done by sending an introductory letter prior to the interview to be used as "a device to avoid or reduce tension, to diminish explanations at the interview itself, and to stimulate the respondents to think about the subject on which they were to be interviewed" (Houle, p. 83). The second part of the study was a nineteen question survey, with probing sub-questions that were put to extensive scrutiny prior to use (Houle, 1961). Subjects for the study were from the Midwest, predominately middle age and white. The research was done in an interview format with the average interview lasting approximately two hours (Houle, 1961). Houle found that his respondents fell in to one of three categories: *Goal-oriented,* are those who have defined objectives and know what they want to accomplish, *Activity-oriented,* are those who take part because their knowledge acquisition is accomplished through the activites related to learning, *Learning-oriented,* seek knowledge for the sake of knowledge.

Cervero and Yang (1994) explored the typology developed by Houle's later work on professional's participation in continuing education (Houle, 1990). Houle had proposed that there are four groups of practitioners that participate in continuing education for different reasons. Houle felt that the four groups (innovators, pacesetters, middle majority and laggards) were "linked to their zest and effort to acquire mastery or competence (Cervero & Yang, 1994). Cervero and Yang (1994) did a cluster analysis of these groups through a study of over 500 Canadian veterinarians. These subjects were surveyed by attitudes and obligations associated with continuing professional education, the connections or disconnects between the groups and

their social and demographic characteristic distinctions, and any linkages between the types of groups and their possible future participation in professional educational offerings.
Cervero & Yang found that there was relevance between their study and Houle's professional's participation typology. In particular, they noted three findings relevant for practitioners:

> First, a positive attitude toward continuing professional educations seems to be critical in determining professional's participation; Second, continuing education program planners should consider the social influences on their potential learners; Third, professionals' personal beliefs about the obligation to participate should be taken into account in developing effective continuing professional education programs (Cervero & Yang, 1994).

The factors of positive attitude, social influences and obligation to participate are applicable to this studies target population due to the professional nature of the training and the social influences that are in effect for these individuals.

Gorard, Rees and Fever (1999) investigated the possibility that participation is driven by socio-economic change rather than the reverse. In their study of patterns of participation in education and training in South Wales over the last 100 years, they interviewed over one thousand participants for "training histories" (Gorard et. al, p. 36) and investigated the effect of economic activity on the participation rates. Although they make a case for the influence of economic change as a possible factor in the participation rates, they were unable to state definitively that economics was the rationale for the participation. They suggest that a "formation in individuals of a relatively stable learner identity based on their previous experience of learning, primarily at school, and affecting their view of what is appropriate participation for them in the future" (Gorard et al., p. 42).

Motivation and the Education Participation Scale (EPS)

Building upon the typology developed by Houle, Boshier developed the Education Participation Scale (EPS) in 1971 and it has been extensively utilized in research since its inception (Merriam & Caffarella, 1999). Although originally used during Boshier's work in New Zealand, the EPS has been used in over one hundred forty different academic works on several continents. (Boshier, 2006) Explanations given for the six factors of the EPS on Boshier's research site are described in the appendix in Table 8. The six factors that Boshier uncovered in his research (social contact, social stimulation, professional advancement, community service,

external expectations and cognitive interest) opened the debate on specific factors that effect participation.

Morstain and Smart (1974) took the findings of Boshier and replicated his study and use of the EPS in the United States on over six hundred adult students enrolled at a community college in the fall of 1972. Morstain and Smart had the stated purposes to not only replicate the study in the United States to check for cross-cultural reliability, but to "determine if there were significant differences in expressed reasons for participation when adult learners were categorized by different sex-age groupings" (Morstain & Smart, p. 84). Their conclusions were that there was reliability in the EPS concurrent with their findings, but they cautioned that more work should be done to validate their findings. They also made a case for age-sex groupings differences, with younger adults more motivated by social relationships (social stimulation), men had higher external expectations motivation, and women had higher cognitive interest motivation (Morstain & Smart, 1994).

Boshier and Riddell (1978) took the EPS and administered it to a population of retirees participating in continuing education in Vancouver, B.C. Questions aligned with the professional advancement factor of the EPS were eliminated to see if there was congruence in the rest of the instrument to previous research. Boshier and Riddell felt that this was needed as "practitioners arranging educational experiences for older adults are faced with the fact some EPS items are irrelevant to the needs and motives of their clients" (Boshier & Riddell, 1978). The researchers stated that this was needed to validate the factor structure of the EPS without the professional development questions as well as to increase the face validity of the instrument by eliminating the irrelevant questions. Boshier and Riddell found that the EPS "has considerable utility for adult educators involved with planning programs for older adults" (Boshier & Riddell, p. 173).

Boshier and Collins (1985) went on to do an extensive study of over thirteen thousand respondents over multiple continents. This phase of the research was to verify that the EPS was congruent with Houle's typology. For this study they used cluster analysis to verify the assertion by Houle that "these are not pure types; the best way to represent them pictorially would be by three circles which overlap at their edges" (Houle, p. 16). Boshier and Collins found that Houle's original assertion of goal and learning orientations were congruent with their findings. Where the research differed was in the activity orientation. There were multiple facets for this orientation and the correlation was not as easily aligned.

Fujita Starck (1996) investigated the factor stability and construct validity of the EPS through a study of its use with students at a large state university (n = 1142). The researcher found that in this context the revised seven-factor typology (communication improvement, social contact, educational preparation, professional advancement, family togetherness, social stimulation and cognitive interest) was reliable in revealing "a distinctive set of student characteristics and reasons for participation" (Fujita Starck, p. 29).

Garst and Ried (1999) used the EPS in their study of nontraditional doctor of pharmacy students and the University of Florida. This research looked at the effect motivation had on participation in continuing education for pharmacists and the implications on marketing subsequent educational opportunities. Garst and Ried found that the EPS was a valid instrument for measuring motivation of the target population and "may be able to increase enrollment using promotional messages to target audiences based on determination of goals or motivating influences of participants" (Garst & Ried, p. 303).

Boshier, Huang, Song and Song (2006) have recently taken the EPS to Shanghai, China to test for validity of the Chinese version of the EPS as well as to discern motivations for participation in adult education as Chinese society and culture is in flux. As the stated purposes of their study, Boshier, Huang, Song and Song discussed the impact that social changes have had on adult education and participation since the mid-1960's. These factors have had a profound impact on a generation that is struggling to find motivation in the new pro-education society (Boshier, et. Al, 2006). The researchers found that the Chinese version of the EPS was able to discern the motivation of Chinese adults to participate in continuing education. What was difficult to correlate was the motivational factors of the Chinese with other populations studied. The researchers feel there is considerable opportunity for further study on this particular population.

Adult Attitudes toward Continuing Education Scale (AACES)

Another instrument that has been noted in the literature is Darkenwald and Hayes (1988) adult attitudes toward continuing education scale (AACES). In 2002, Blunt and Yang did an extensive study of the factor structure of the AACES and its reliability for prediction of participation. The findings by Blunt and Yang came to the following conclusion regarding the AACES: "Many of the 22 items did not adequately reflect the constructs they were intended to

measure, suggesting low content validity; the factors were poorly identified, and the scale's reliability was too dependant on its large number of items" (Blunt & Yang, p. 311).
The recommendation of the researchers was to reduce the AACES to a revised version (RAACES) that included only those items that met the criteria of the study for reliability and construct validity. This reduced the AACES twenty-two items to the RAACES nine items. To see the true picture of participation in this study, the nine item RAACES is not sufficient.

Barriers to Participation

Understanding participation of adults in continuing education does not show the full picture on participation. (Merriam and Cafferella, 1999) To understand participation we must look at non-participation, and the barriers that exist for the learner, with the same critical eye.

The basis of non-participation research can be traced to the same work by Johnstone and Rivera in 1965 that spawned participation research. Johnstone and Rivera (1965) found that their random sample of nearly twelve thousand households nation-wide unveiled the two most prevalent reasons for non-participation by adults was "lack of time (39%) and lack of money (43%)" (Merriam & Caffarella, p. 56). Cross (1981) also noted that "in most surveys, lack of time vies with cost for first place among the obstacles to education" (p. 103). Both of these findings were consistent with the reasons for non-participation found in the UNESCO study (Valentine, 1997).

Johnstone and Rivera (1965) reported their findings in terms of two general clusters of the ten relevant barriers; external or situational that are specific to factors that are "at least beyond the individual's control" (Johnstone & Rivera, p. 214), and internal or dispositional which are defined as those barriers that "reflect personal attitudes" (Merriam & Caffarella, p. 57). Cross (1981) went on to add institutional barriers which "consist of all those practices and procedures that exclude or discourage working adults from participating in educational activities" (p. 98). Cross also noted that while there can be a number of factors associated with non-participation for each individual learner, among the institutional barriers of consequence "potential learners complain most about inconvenient locations and schedules and about the lack of interesting or relevant courses" (p. 104).

Darkenwald and Merriam (1982) further divided Johnstone and Rivera's external/situational barriers into psychosocial obstacles which are specific to "beliefs, values, attitudes, and perceptions about education or about oneself as a learner" (Merriam & Caffarella,

p. 57) and informational obstacles which "reflects the lack of awareness as to what educational opportunities are available."(Merriam & Caffarella, p. 57)

Barriers of Age

The barriers associated with age have been noted in several recent studies (Vogelsang-Coombs & Miller, 1998; Bates & Norton, 2002). Cross has made the observation that "after educational attainment, the most powerful predictor of participation in adult education is age" (Cross, 1981, p. 57). In her overview of the state studies on participation Cross observed that "in most state studies, the proportion of people 55 and older who state that their age is a deterrent to learning runs around fifteen to twenty-five percent" (p. 57). Cross goes on to state that "in almost all surveys, both interest and participation in education start to decline in the early 30s, continue to decline gradually through the 40s, but then drop precipitously for those 55 and older" (p. 57). The reasons behind this decline tend to be documented under several possibilities that may not be common to all individuals as a collective. One of the reasons noted is that advanced age is perceived to diminish the capacity to learn (Johnstone & Rivera, 1965; Kopka & Peng, 1993). As Cross states, "the feeling of being too old to learn increases steadily with age until it becomes a common barrier to education for older people" (p. 57).

Spencer (1980) notes four specific barriers that she aligns with age: informational barriers, also seen as a lack of awareness of the educational activities; situational barriers, which center around declining physical capabilities and individual's personal responsibilities; institutional barriers, that can be problematic in terms of scheduling, funding, physical environment, and enrollment inflexibility; and attitudinal barriers, where the societal stereotypes of the aged have adversely effected the individuals perception of their ability to succeed in the learning environment

Another reason associated with age is a geographic barrier. Cross notes that in a study done by Hoyt (1975) for the state education commission and the Kansas Board of Regents, "about one fourth of Kansas adults over 60 years of age said they could not easily get out of the house once a week and many are reluctant to travel for long times or long distances" (Cross, p. 58).

Rural Barriers

In the dialogue on defining the hard to reach adult, Darkenwald (1980) discusses the geographically isolated as a subset of individuals who have specific difficulties with

participation. Darkenwald states "as one would expect, participation rates are notably lower in small towns and rural areas than in cities and suburbs, where access is easier and educational resources more highly concentrated" (p. 2). Kerke (1986) suggests that "inaccessibility, lack of support services, cost, and job and family conflicts often deter rural adults from participation" (p. 3). Due to the highly rural makeup of the state, these barriers will prove to be relevant to the population being studied in this research as well.

Deterrents to Participation Scales (DPS)

Much as Boshier's education participation scale (EPS) is used to analyze participation in continuing education, the Deterrents to Participation Scale (DPS) can be used to verify deterrents that effect the decisions for non-participation. Darkenwald and Scanlan (1984) developed the DPS and administered the survey, originally, to a sampling of health professionals. They found six factors were prevalent to that population: disengagement, lack of quality, family constraints, cost, lack of benefit and work constraints. In the following years, numerous authors have incorporated the DPS in to their research. A preliminary search from the years 2001-2006 found 24 doctoral dissertations that used the DPS in their methodology. The doctoral works span varied academic fields, populations, as well as geographic locations.

Building upon the initial work of Darkenwald and Scanlan (1984), Darkenwald and Valentine (1985) found that of those that chose not to participate, they could divide the reasons for non-participation into five clustered areas: personal problems, lack of confidence, educational costs, lack of interest in organized education, and lack of interest in available courses. These five clusters will be utilized in this research as well.

Participation Models

"Theory without practice is empty, and practice without theory is blind." (Cross, p. 110)

The role of theory is to try and explain, and possibly predict, the phenomenon that is being explored (Cross, 1981). Since learning does not happen in a vacuum, most theories on participation look at the environment surrounding the learner from a sociological as well as a psychological perspective (Merriam & Caffarella, 1999). In an attempt to predict participation by our population in this study, one must examine not only the factors that affect their participation, but the context in which those factors are present.

Many researchers have worked with participation and yet there is not a single theory or model that is considered to be the definitive answer to why individuals participate (Merriam & Caffarella, 1999). The following theories are the most prevalent models in the research and should spread some light on the possible environments that are present.

Miller's Force Field Analysis

In 1967 Henry Miller incorporated Maslow's hierarchy of needs with Lewin's force-field theory and Warner and Gans' social class theories to analyze the forces present around the decision to participate (Nason, 1998). His premise was that while individuals had the internal motivations from Maslow, Warner and Gan's definitions of social classes were being driven by the external dynamics from Lewin's positive and negative force-fields. Miller developed force-fields for four social classes (lower lower, working, lower middle and upper middle) and four content areas (vocational, family, citizenship and self-development).

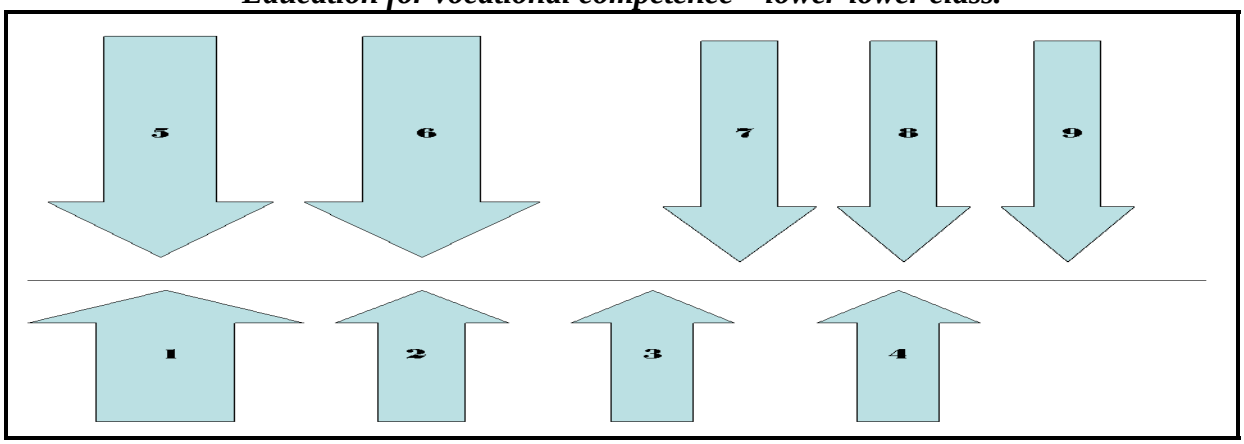
Miller's work was based on the following assumptions on the interconnection between personal needs and social interaction. His assumptions were:

1. Strong personal needs and strong social forces should result in a high level of participation;
2. Strong personal needs and weak social forces should result in generally low participation, with erratic high spots;
3. Weak personal needs and strong social forces should result in high participation originally, with a sharp drop-off after an initial period;
4. When personal needs and social forces conflict, participation will depend upon the strength of the social forces (Nason, p. 30-31)

These forces could be diagramed and this visual depiction could predict who would and would not participate. Miller represented the forces by arrows with the wider arrows holding greater significance to the learner. Figure 5 notes the analysis of the positive and negative forces affecting the lower-lower class. In this depiction, the negative forces are stronger than the positive and would be predict non-participation.

Figure 5 Miller's force-field analysis

Education for vocational competence – lower-lower class.



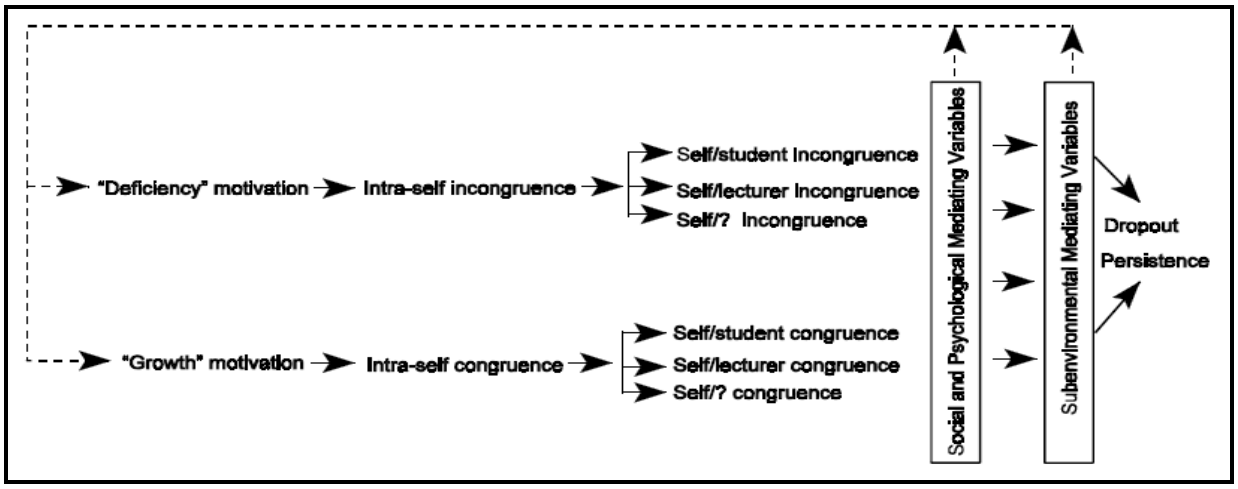
Positive Forces	Negative Forces
1. Survival needs 2. Changing technology 3. Safety needs of female culture 4. Governmental attempts to change opportunity structure	5. Action-excitement orientation of male culture 6. Hostility to education and to middle class object orientation 7. Relative absence of specific, immediate job opportunities at tend of training 8. Limited access through organizational ties 9. Weak family structure

Source – Miller, 1967, p. 21.

Boshier's Congruency Model

Boshier (1973) theorized that the motivational factors involved in the participation decision were also based on Maslow, but were a product of the congruence or incongruence of the learner with their educational environment. Learners were in either of two motivational frameworks: growth or deficiency. Growth motivation was central to the learners that had "satisfied the basic needs described in Maslow's hierarchy" and deficiency motivation were motivated by the basic needs on the hierarchy and "were more apt to respond to the associated social and environmental forces" (Nason, p. 32).

Figure 6 Boshier's Congruency Model.

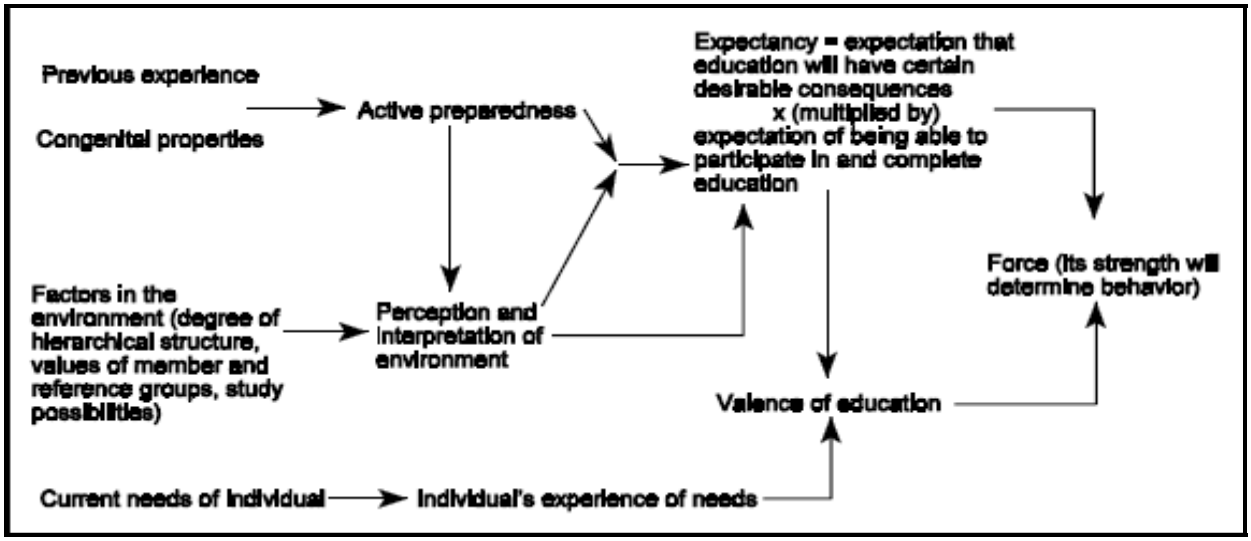


Source: Boshier 1977, p. 91.

Rubenson's Expectancy-Valence Model

Rubenson's model for participation is again based on the perceptions of the individual and their perceptions of the sociological factors in their environment. In this model, the learner's expectation of being successful in the learning environment and that success will have a positive outcome is central to participation (Nason, 1998). In conjunction with this variable, the learner also has a value for the participation. The value can be positive, negative or zero. These two variables denote the motivation of the learner to participate.

Figure 7 Rubenson's Expectancy-valence model



Source: Cafferella & Merriam, 1991, p. 235

Cross' Chain of Response Model

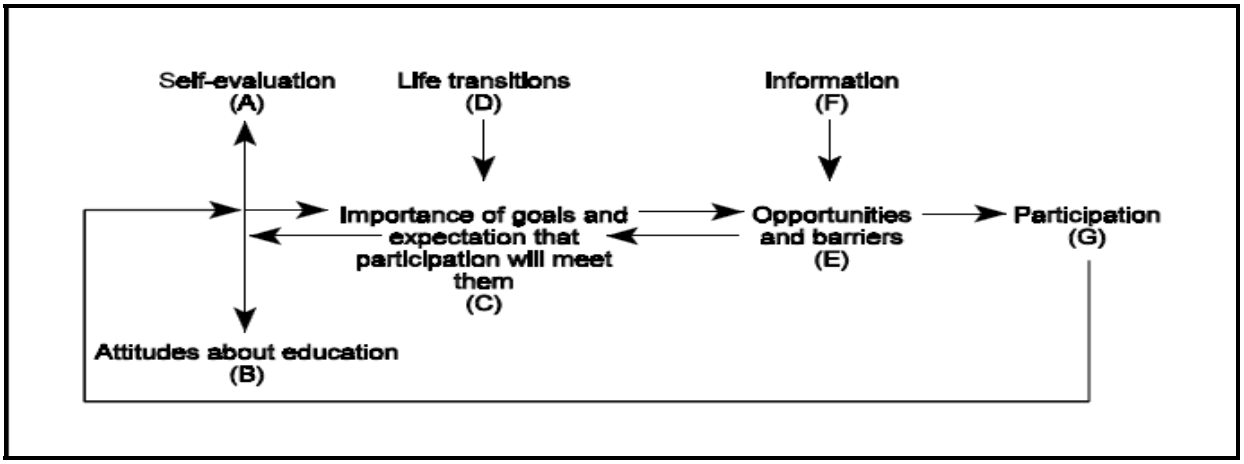
Cross'(1981) chain of response model follows on the works of Miller, Boshier and Rubenson and looks at the sequencing of events that lead to the decision to participate. Cross' model

> assumes that participation in a learning activity, whether in organized classes or self-directed, is not a single act but the result of a chain of responses, each based o an evaluation of the position of the individual in his or her environment (Cross, p. 125).

Of interest in the Chain of Response (COR) model is that the decision is a continuum rather than a static event. Cross references the work of Havighurst (1972) and the idea of the teachable moment when she speaks on life transitions (D) effect on the learner's motivation to participate. Life transitions may facilitate the increase in perceived need for education. Point F, information, is described as "it provides the information that links motivated learners to appropriate opportunities" (Cross, p. 127).

Cross felt that "most efforts to attract adults to learning activities start at point E" (p. 129) with the reduction of the negative forces, the attempt to remove barriers, or the increase of positive forces by the addition of new opportunities. Cross observes that when recruitment activities are centered on the removal of barriers, other issues may be present that could derail the motivation to participate. There are many steps that must happen to precipitate participation prior to the opportunities and barriers presented in step E.

Figure 8 Cross' Chain of Response Model

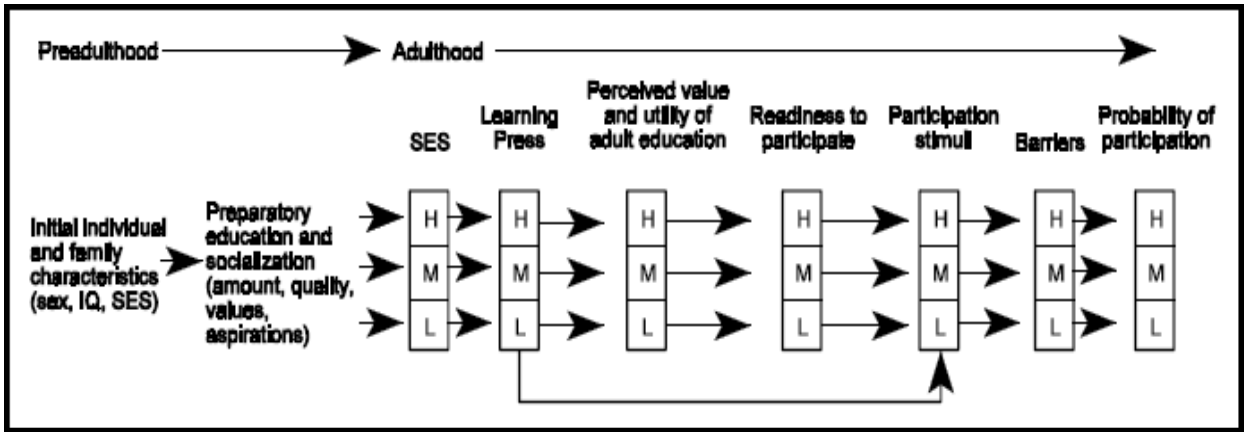


Source: Cross, 1981a, p. 124

Darkenwald and Merriam's Psychosocial Interaction Model

In 1982, Darkenwald & Merriam introduced their model of participation that shifts the focus of motivation to a heavily environmental emphasis. This model is divided in to two segments; preadulthood and adulthood. In the preadulthood segment, prior education holds particular importance (Nason, 1998). As seen in figure 9, each of the six areas in the adulthood phase: socioeconomic status [SES], learning press, perceived value of adult education, readiness to participate, participation stimuli and barriers, can be rated as high, middle or low. Each of the components should have an effect on the subsequent component. Under these assumptions, high socioeconomic status should facilitate high learning press and thus high perceived value and so on. Nason(1998) also notes that "the model indicates a direct relationship between the intensity of learning press and the frequency and intensity of participation stimuli" (p.37).

Figure 9 Darkenwald & Merriam's Psychosocial Interaction Model.



Source: Darkenwald & Merriam, 1982, p. 143

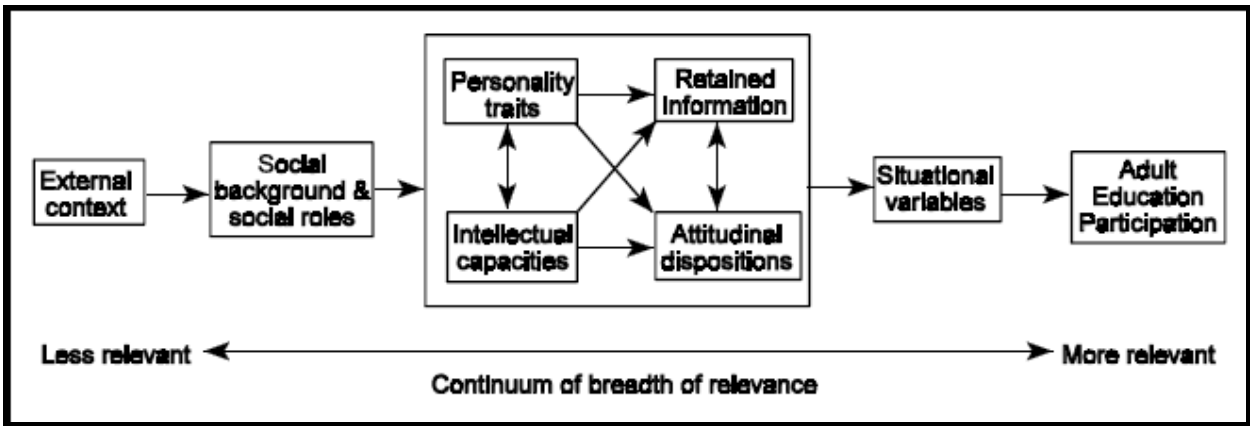
Cookson's ISSTAL model

In 1986 Cookson attempted to formulate a truly interdisciplinary model using situational variables and four areas of independent variables (personality traits, retained information, intellectual capacities, and attitudinal dispositions) to explain the decision to participate (dependent variable). Cookson noted that his theory was not fully developed (Nason, 1998) but should rather be used as a basis for further study and theory development. The interdisciplinary, sequential-specificity, time-allocation, life-span (ISSTAL) model begins with the external context and socio-demographic factors that lead up to the four interactive independent variables. The situational variables have the most impact on the decision to participate and are located

closest to the decision to participate. This is demonstrated in the model on the right and conversely "Thus, the farther left on the 'breadth of relevance' continuum the variable lies, the more diluted its impact and the greater probability that effect will be influenced by subsequent variables" (Nason, p.39).

Unlike the other models, Cookson (1986) does not define adult education as either formal or informal. Cookson's belief is that the decision to participate (dependent variable) will still be a consequence of the independent variables no matter what the context. Cookson does make the point that those who participate in adult education tend to continue to do so. Cookson (1986) states "people who exhibit higher levels of [participation in adult education] in their thirties may be expected to display similarly higher levels in their forties, fifties and sixties" (p. 132).

Figure 10 Cookson's ISSTAL model



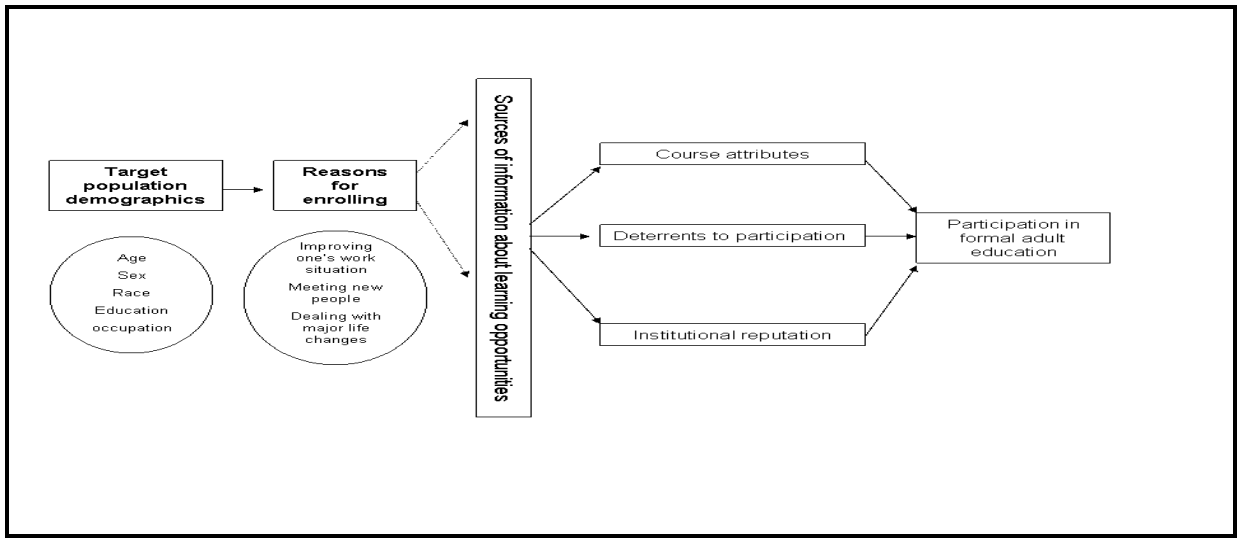
Source: Cookson, 1986, p.131

Henry and Basile's Decision Model

In this model formulated in 1994, motivational factors and deterrents to participation are jointly used to explain adult participation (Merriam & Caffarella, 1999). Beginning from the target population demographics, the decision is impacted by the learners reasons for enrolling and filtered by sources of information about learning opportunities. Course attributes, deterrents to participation and institutional reputation all impact the decision prior to the final decision to participate. Although the graphic depiction is rather linear, the complexity of the decision is much more interrelated. As tested by Henry and Basile, vocational reasons were strong motivation to participate "according to our data, work-related factors pile up in favor of

participation: typical is a person who has a job-related interest, received a course brochure at work, and has an employer who is willing to pay the course feels" (Henry & Basile, p. 80).

Figure 11 Henry and Basile's decision model



Source: Merriam & Cafferella, 1999, p. 65

Over the years, many researchers have theorized on the decision making process surrounding participation in training and continuing education courses. Although every individual comes with their unique set of beliefs and circumstances, there are some commonalities of reasons that can be studied. Understanding these reasons and working to alleviate as many barriers as possible can have an effect on the participation rate of this population.

Summary

This literature review has given the foundations and history that has brought forth the current state of emergency management structure and training. A description of how emergency management functions in the state of Kansas as well as the working relationships between local and state government in disasters has been discussed. These overviews have illuminated the decisions regarding the revised expectations for participation by local elected officials in emergency management training and the expectations constituents have of their elected officials in disasters. A discussion on the fundamentals of adult education participation research as it pertains to decisions to participate and possible barriers that effect those decisions. This information is to provide a foundation for the research on participation by local elected officials in the state of Kansas to mandated emergency management training. This research should

provide a basis for reversing the decision to consider compliance in emergency management training by the target population from a group perspective to the original individual compliance decision. It should also enlighten training providers as to the reasons for participation or non-participation and the barriers that the target population find relevant to making the decision to participate.

In the following chapter the plan for researching the target population of county commissioners and mayors of tier one and tier two cities participation in emergency management training will be outlined. This research is structured to achieve the highest level of participation by the population using hand delivered surveys at the Kansas Association of Counties meeting and the Tailored Design Method (Dillman, 2000) for non-attendees and mayors.

CHAPTER 3 - METHODOLOGY

> "Bringing command, control and coordination to recovery efforts does not happen on the fly. A chain of command, with everyone knowing to whom they report, their duties and how their roles change during times of disaster, not only has to be in place ahead of time, it's enactment must be second nature to all involved, at all levels of government." (2006)
>
> *James Lee Witt*
> *Director of FEMA*
> *1993-2001*

Introduction

The purpose of the study was to determine the participation and barriers to participation of local elected government officials in required emergency management and disaster training in the state of Kansas. This study seeks to understand local elected government officials' participation and/or perceived barriers to participation. The local elected officials were confined to the population of county commissioners and mayors of first class and second class cities in the state of Kansas. It is believed that participation in the required training by these officials will increase their knowledge during disasters. Increased knowledge during these events could lead to fewer mistakes in critical decisions by the local electeds, decrease in costs of the recovery, increase in satisfaction of constituents with the performance of local government in the restoration process, and the possibility of less harm to the well-being of those affected directly and indirectly by the incident. (Hadley, 2003; USGAO, 2006; US House or Representatives, 2006).

The Federal government is currently reevaluating their definitions of compliance (FEMA, 2006) and this study should be helpful in understanding why local elected officials may not be participating at the desired levels.

Statement of the Problem

Local elected officials are not prepared for emergency management and disasters at the level to which they need to be for the onset of new federal homeland security mandates and the

possibility of liability to their jurisdiction. (Hadley, 2003; USGAO, 2006; US House or Representatives, 2006). The current trend to consider compliance from a group perspective rather than on an individual basis should be reversed. Reasons for participation and perceived barriers to participation should be studied to alleviate all possible obstacles to participation by the local elected officials.

Statement of Purpose

The purpose of this study is to examine participation and non-participation of elected government officials in mandated federal national incident management system (NIMS) and incident command system (ICS) training. This study investigated the reasons behind the decision to participate or not participate in the training by this population.

Research Questions

The following research questions guided this study:

1. To what extent are local elected government officials in Kansas participating in federally mandated emergency management and disaster training?
2. What are the factors that local elected government officials consider when making the decision to participate in continuing education and emergency management training in the state of Kansas?
3. What are the barriers that effect non-participation of local elected officials in emergency management and disaster training in the state of Kansas?

Population for the Study

The population that was surveyed for this study are county commissioners and mayors of first class and second class cities in the state of Kansas who are in office at the time of the research. Since the designation of which local elected official is in charge is dependent upon the local emergency operations plan, a mayor of any class one or class two city or any county commissioner is eligible for the position. In the state of Kansas there are 22 class one mayors, 88 class two mayors and 346 county commissioners. These numbers include consolidated city-county governments such as Wyandotte County. The total population (n=456) of mayors of class one and class two cities and all commissioners in the state of Kansas were targeted for inclusion in this study.

The state of Kansas was used as the geographic boundary for this research for several reasons. Because emergency management is driven from the federal government to the individual states and then to the counties, each state government has small differences regarding how they regulate and deliver their training. While generalities regarding the participation of commissioners and mayors from other states may be surmised from the research, limiting the scope of the population will stabilize some variables such as communication, locations, delivery methodology and marketing efforts for the training.

Although every effort was made to entice the sample population to engage, participation in the research was on a volunteer basis. The survey instruments included a statement verifying the volunteer nature of participation, yet explaining the need for their input and support for the social exchange. (Dillman, 2000)

A pilot study was done on a parallel population of non-commissioner, non-mayoral elected officials who are members of the Regional Economic Area Partnership (REAP) in south-central Kansas to elicit feedback on the content prior to all deliveries of the survey.

Research Design

This research attempted to uncover and define the participation of local elected officials in mandatory emergency management training. The emergency management courses that were studied are the NIMS 700 and ICS 100 training from the Presidential Directive Eight (HSPD-8), the National Preparedness Goal.

A pilot of the study was enacted with a group of members of REAP based in south-central Kansas. The membership of REAP are local elected officials from city and county governments. Those members of REAP who are elected officials, but are not county commissioners or mayors were requested to participate. This pilot was done during the organizations October 2006 meeting.

The research that was undertaken attempted to describe the decisions of the local elected officials to participate in this training as well as their attitudes on barriers to participation and possible motives for non-participation in the federally mandated training. The question of percentage of participation (100%) by the population being studied (local elected officials) was designated as the dependent variable. Each of the barriers to participation as identified in the literature and addressed in the instruments were revealed and identified as significant or non-

significant barriers to participation. Questions regarding participation by the target population were evaluated through a combination of a modified version of Boshier's (1971) Education Participation Scale (alternate form) as reported by Morstain and Smart (1974) and the Deterrents to Participation - General scale (Darkenwald & Valentine, 1985) combined with demographic information. The variables assessed in the modified Education Participation Scale -A (Morstain & Smart, 1975) are social contact, social stimulation, professional advancement, community service, external expectations and cognitive interest. The variables assessed in the modified Deterrents to Participation Scale–G (Darkenwald & Valentine, 1985) are personal problems, lack of confidence, educational costs, lack of interest in organized education and lack of interest in available courses. The demographic information (table 10) included questions on age of the participant, the participants jurisdiction, current compliance with the required training and how long the participant has held the elected office.

The research was done through an initial survey delivered to the county commissioners that participated in the Kansas Association of Counties annual meeting in Topeka, Kansas on November 20 & 21, 2006. Non-participantion by the county commissioners was solicited through the survey tailored design method by Dillman (2000). The group of mayors of first class and second class cities that were included in the survey population were solicited for participation by the Dillman tailored design method as well. Dillmans four step process for communication is included later in this chapter.

Appropriateness of Design

As noted in the design methodology, the modified EPS and the DPS were used in the anticipation that these instruments would be an appropriate tool to enlighten the researcher to behavior. These instruments have been used in numerous other studies (Garst & Ried, 1999; Kowalik, 1989; Towers, 2003; Weaver, 1999) and are regarded as reliable and valid instruments.

The entire population that was studied were included in the survey for various reasons. Due to the number of variables (14) and the relatively small size of the total population (n=456) it was felt that the entire population should be included to alleviate sampling error.

The analysis for this study was done using the initial multivariate statistic of logistic regression. As defined by Tabachnick & Fidell (1996) "logistic regression allows one to predict a discrete outcome such as group membership from a set of variables that may be continuous,

discrete, dichotomous, or a mix" (p. 575). In this study, the discrete outcome was the variable of participation/non-participation. In their paper comparing logistic regression and discriminate analysis, Press and Wilson (1978) suggest that logistic regression is preferable to discriminant analysis when "relating a qualitative dependent variable to one or more independent variables, which may or may not be qualitative" (p. 699).

Tailored Design Method

The Tailored design method used by Dillman (2000) was employed to increase participation of the target population and decrease nonresponse error. Each of the correspondences for the survey can be found in figures 19 - 25. Dillman's tailored design approach (2000) is based on the theory that "the likelihood of responding to the request to complete a self-administered questionnaire, and doing so accurately, is greater when the respondent trusts that the expected rewards of responding will outweigh the anticipated costs" (p. 27). Dillman's tailored design method uses varied techniques to achieve the goal of response. Three areas that are critical to response are to establish trust, increase rewards, and reduce social costs for the potential respondent.

Establish Trust

Dillman (2000) suggests that establishing trust can be achieved through "sponsorship by legitimate authority, make the task appear important, provide a token of appreciation in advance or invoke other exchange relationships."(p. 27) The establishment of trust was accomplished by sponsorship of the study through Kansas Association of Counties and Kansas Department of Health and Environment.

Increase Rewards

Dillman (2000) also notes that increasing rewards for the respondent will help with response rates. Increasing rewards can be accomplished by showing positive regard for the respondent, asking for their advice, noting support of the group's values, saying thank you and giving a tangible reward for inclusion in the study (p. 27). All of these techniques were incorporated in the communications to the target population, in particular their unique insight on barriers to participation in the training.

Reduce Social Costs

Reducing social costs to the target population is the final recommendation by Dillman. Dillman (2000) suggests avoiding subordinate language, the possibility of embarrassment to the respondent, or inconvenience to increase the likelihood of participation (p. 17-18). It is also recommended that the questionnaires should "appear short and easy" (p. 18) as well as ask for a minimal amount of personal information (p. 18). A pilot of the surveys was done with members of the Regional Economic Area Partnership (REAP) of South-Central Kansas to verify that social costs to the participants were in the acceptable level for maximum participation.

Instrumentation and Data Collection

Initial information for the research was acquired from a questionnaire comprised of a combination of the Education Participation Scale (EPS-A) initially created by Roger Boshier in 1971 and revised to its current form in 1974 by Morstain and Smart, as well as the Deterrents to Participation Scale - general (DPS-G) developed by Darkenwald and Valentine in 1985. The third portion of the instrument was demographics information from the participant (table 19).

The Deterrents to Participation Scale (DPS) can be used to verify deterrents that effect the decisions for non-participation. Darkenwald and Scanlan (1984) developed the DPS and administered the survey, originally, to a sampling of health professionals. In the following years, numerous authors have incorporated the DPS in to their research. A preliminary search from the years 2001-2006 found 24 doctoral dissertations that used the DPS in their methodology. The doctoral works span varied academic fields, populations, as well as geographic locations.

Building upon the initial work of Darkenwald and Scanlan (1984) Darkenwald and Valentine (1985) found that of those that chose not to participate, the reasons for non-participation could be divided into five clustered areas; personal problems, lack of confidence, educational costs, lack of interest in organized education, and lack of interest in available courses. These five clusters were utilized in this research as well.

The data was collected in a three step process. The first step was to do a pilot study of the survey with a parallel group of local elected officials, the Regional Economic Area Partnership (REAP) partners at their October 2006 meeting. This pilot was done to acquire feedback on the survey. The survey was given to the participants and a separate set of written questions were attached to elicit feedback on the length, clarity and relevance of the survey questions. The

researcher considered all feedback from the pilot and made corrections to the surveys as deemed necessary. The only corrections made to the pilot survey were a continuity of numbering between each of the three parts of the survey.

Phase two of the data collection was the distribution of survey instruments at the Kansas Association of Counties meeting in Topeka, KS in November, 2006. Permission was given by the executive director of the association for this work and the commissioners were asked to participate in the study in conjunction with the association, as well as Kansas Department of Health and Environment. Participation in this survey distribution was matched against a listing of currently seated commissioners.

Phase three of the data collection was to attain the participation of those commissioners that did not participate in phase two as well as the mayors of first class and second class cities in the state of Kansas using the methodology suggested by Dillman (2000) in his Tailored Design Method. The mayors of first and second class cities were added to the population because a Local Emergency Operations Plan (LEOP) can state that either the county or the mayor of a class one or class two city may be the local elected official in charge during a disaster. The designation is dependent upon how the LEOP was written.

The Dillman methodology that was used for the survey suggests that in order to receive optimal participation, "it is the development of survey procedures that create respondent trust and perceptions of increased rewards and reduced costs for being a respondent" (Dillman, 2000, P. 4). These methods were used in an attempt to reduce sampling error and nonresponse error in the study and increase the respondents perception of value.

A pre-notice post card was sent on January 2, 2007 to all potential respondents. One week later (January 8, 2007) a cover letter and the survey were planned to be sent with a self-addressed, stamped envelope. It was brought to the researcher's attention on January 10, 2007 that the self-addressed, stamped envelope had not been included. The survey was resent to all potential respondents on January 12, 2007 with an insert of explanation. The fourth mailing (January 18, 2007) was a reminder/thank you postcard. The fifth mailing (January 25, 2007) again sent a copy of the instrument with a second cover letter eliciting response. Each of these correspondences can be found in the figures 21-25.

Data from the questionnaires was entered into an excel spreadsheet prior to exporting the data for statistical analysis. All data inputting was verified by a third party. Those individuals

that responded by mail versus those that responded in person were coded differently to verify whether there is or is not a difference in the responses between the two sub-populations.

Validity and Reliability

The research was done using one instrument containing three parts: the Education Participation Scale (EPS) in the alternate form, the Deterrents to Participation Scale (DPS) in the general form and demographic information (Table 19). Although Boshier's original version of the EPS has been verified by numerous subsequent studies (Boshier, 1976; Boshier & Riddell, 1978; Cervero & Yang, 1994; Fujita-Starck, 1996; Boshier 2006; Boshier, Song & Song, 2006), the reliability of the EPS-A alternate form (Morstain & Smart, 1974) was enlisted for this study and, consequently, discussed in this chapter. Likewise, the original DPS (Darkenwald & Scanlan, 1984) was substituted with the DPS – G (Darkenwald & Valentine, 1985) for its relevance to this population.

The EPS, that was originally developed by Boshier (1971), was modified by Morstain and Smart (1974) to the EPS – A alternate form. Morstain and Smart (1974) took the findings of Boshier and replicated his study and used the EPS with modifications in the United States on over six hundred adult students enrolled at a community college in the fall of 1972. Morstain and Smart had the stated purposes to not only replicate the study in the United States to check for cross-cultural reliability, but to "determine if there were significant differences in expressed reasons for participation when adult learners were categorized by different sex-age groupings" (Morstain & Smart, p. 84). Their conclusions were that there was reliability in the EPS-A concurrent with their findings, but they cautioned that more work should be done to validate those findings. Morstain and Smart also found that the measure of internal consistency was relatively high (see table 4). Boshier evaluated the EPS-A in 1991 and, as noted in table 4, his alpha scores for the six scales range from .76 to .91, further verifying the reliability and validity of the alternate form of the EPS. Garst and Ried (1999) used the modified EPS -A in their study of nontraditional doctor of pharmacy students at the University of Florida. They found that the internal consistency of the factors ran from .86 to (Community Service/Social Welfare) to .60 (Professional Advancement).

Table 4 Coefficient Alpha of the EPS - A

EPS-A factors	Boshier, 1991	Garst and Reid, 1999	Morstain and Smart, 1974
Social Relationships	.91	.85	.86
External Expectations	.80	.70	.82
Social Welfare	.91	.86	.80
Professional Advancement	.80	.60	.72
Escape/Stimulation	.80	.78	.80
Cognitive Interest	.76	.83	.77

As seen in table 4, only one of the three studies found an alpha of .60 (Garst and Reid-professional advancement). Garst and Ried felt that the EPS was a valid instrument for measuring motivation of the target population and "may be able to increase enrollment using promotional messages to target audiences based on determination of goals or motivating influences of participants" (Garst & Ried, p. 303). Given the differences in population, it is reasonable to believe that the EPS-A is a reliable instrument with content validity.

The original DPS was developed for health-related continuing professional education, Darkenwald and Valentine (1985) developed the DPS-G that "addressed the problem of limited external validity by developing a new form of the DPS appropriate for the general adult population" (p. 177). Darkenwald and Valentine (1985) noted in their original work on the DPS-A that "overall scale reliabilities (alpha) for the six factors were .87, .83, .72, .64, .75, and .40 respectively" (Darkenwald & Valentine, p. 182). Hughes (2005) noted the internal reliability for the DPS-G as .86 in his work with certified athletic trainers and Kowalik (1989) had reported the alpha coefficient as .83 in his work. Darkenwald and Valentines original coefficient alphas can be compared with those of Towers (2003) and her studies of the public health workforce.

Table 5 Coefficient Alphas of the DPS - G

DPS – G factors	Darkenwald and Valentine, 1985	Towers, 2003
Lack of confidence	.87	.78
Lack of course relevance	.83	.77
Time constraints	.72	.65
Low personal priority	.64	.65
cost	.75	.82
Personal problems	.40	.58

Although the validity of the DPS- A to measure deterrents to participation can be seen in these conclusions, the reliability is affected slightly by the population being studied. Within the context of the differences in populations, it is felt that the DPS – G is a reliable and valid instrument for this study.

Instrumentation modifications

Modifications to the instrument were made to the survey instrument to make the questions more pertinent to the target audience. The DPS – G had 5 wording modifications and 1 deletion. 28 questions were unchanged. These changes can be seen in figure 15. The EPS– A was also modified to target the audience. These changes can also be found in table 15. The EPS had 22 questions with no changes, 13 questions were deleted, and 12 questions had wording modifications. Three questions were added that had been part of a subsequent study by Garst and Ried (1999). Garst and Ried felt that these questions were pertinent to their population of continuing education students in the pharmacy field. It is believed that this population is also continuing education in nature and should have these questions added as well.

Data Analysis

The data analysis for this study was done using the multivariate statistic of logistic regression. As defined by Fidell & Tabachnick (1996) "logistic regression allows one to predict a discrete outcome such as group membership from a set of variables that may be continuous, discrete, dichotomous, or a mix (p. 575)." In this study, the discrete outcome was the variable of participation/non-participation. Each of the six participation factors identified in the Education Participation Scale – A (Morstain & Smart, 1974), the six clusters identified in the deterrents to participation scale - G (Darkenwald & Valentine, 1990) and the two demographic variables (age and rural) were analyzed to ascertain their ability to increase or decrease the probability of participation by the target population. Each of the coefficients were assessed for statistical significance on the rate of participation/non-participation and their strength of association to the predicted outcome were verified through goodness-of-fit analysis.

The independent variable of participation/non-participation was the basis for the decision on significance of the dependent variables. Each of the participation factors (social contact/relationships, escape/social stimulation, professional advancement, community service/social welfare, external expectations, cognitive interest) and the deterrents to

participation clusters (personal problems, lack of confidence, costs, lack of course relevance, Time constraints, and low personal priority) as well as the demographic variables (age and rural/urban nature of the jurisdiction) were identified in the logistic regression equation and analyzed as predictors of participation. Hosmer and Lemeshow's chi-square test of goodness of fit was used to reveal the relevance of the dependent variables to the participation variable. Those variables that were considered relevant when the Wald's p-value is less than .2 ($p<.2$) were formulated in to a forward stepwise analysis. All relevant tests were done to achieve the ultimate goal of the best prediction of participation with the least number of variables. A secondary anticipated outcome was to formulate a group of factors that will help emergency management personnel alleviate perceived barriers to participation by the target population.

Summary

This was a study of the motivations and barriers to participation in mandated NIMS 700 and ICS 100 training by county commissioners and mayors of tier one and tier two cities in the state of Kansas. This survey was done in cooperation with Kansas Department of Health and Environment and the Kansas Association of Counties and used a combination of the EPS- A, the DPS-G and demographic information. The pilot study was done with the Southcentral Kansas Regional Economic Partnership Consortium (REAP) during their October 2006 meeting. The initial delivery of the survey was done during the Kansas Association of Counties (KAC) meeting in late 2006. Those commissioners that do not attend the KAC meeting as well as the mayors of tier one and tier two cities were surveyed by mail in early 2007 using the Tailored Design Method (Dillman, 2000) to find the reasons the target population was or was not participating in this training.

Due to the rural nature of the state, it was believed that the relevance of some factors were different than for states with less rural populations. Understanding why county commissioners and mayors in the state of Kansas chose to participate or not participate in emergency management training was important as the changes in compliance are being reviewed. This research should enlighten other jurisdictions, and the national platform, on the barriers that exist as well as the factors that are important to local elected officials as they decide to participate in this training.

CHAPTER 4 - PRESENTATION AND ANALYSIS OF DATA

> "During a press conference, in response to a question about the Superdome, the Mayor asserted that 'the Superdome can probably accommodate 50,000, 60,000, 70,000 people." "The American Red Cross determined the Superdome did not meet their safety criteria and refused to put their staff in harm's way, choosing rather to deliver any necessary aid to the Dome as soon as the storm had passed."
>
> *The Federal Response to Hurricane Katrina: Lessons Learned*
>
> *February 2006*

Overview of Study

This study uncovered the motivations and barriers to participation in mandated NIMS 700 and ICS 100 training by county commissioners and mayors of tier one and tier two cities in the state of Kansas. This survey was done in cooperation with Kansas Department of Health and Environment and the Kansas Association of Counties and used a combination of the EPS- A, the DPS-G and demographic information. The pilot study was done during the regional economic area partnership (REAP) meeting in mid-October of 2006. The initial survey work was administered live to the commissioners participating in the Kansas Association of Counties (KAC) meeting in November of 2006. Those commissioners that did not attend the KAC meeting as well as the mayors of tier one and tier two cities were surveyed by mail in early 2007 using the Tailored Design Method (Dillman, 2000) to find the reasons the target population was or was not participating in this training.

In this study, the discrete outcome was the variable of participation/non-participation. Each of the six participation factors identified in the education participation scale – A (Morstain & Smart, 1974), the six clusters identified in the deterrents to participation scale - G (Darkenwald & Valentine, 1985) and the two demographic variables (age and rural) were analyzed to ascertain their relevance to the population being studied and their effect on the populations decision to participate or not participate in the training. Time in office was reviewed to ascertain the effect on the other variables. Each of the coefficients were assessed for statistical significance in terms of their impact on the rate of participation/non-participation. The strengths

of association of each independent variable to the dependent variable were verified through the Wald chi-square and the regression model was analyzed through goodness-of-fit analysis.

Data Collection Methods

The data collection began with a pilot study in mid-October of 2006. The membership of the regional economic area partnership (REAP) from South-central Kansas was asked to take the survey and give initial feedback as a pilot for the study. Eight members of the partnership that were elected officials participated in the pilot study. The pilot participants were asked about the length of the survey, any ambiguity in the questions, and any suggestions they might have on questions to be included or excluded to obtain the optimum participation from the target population. A numbering error was corrected, but no other corrections were made to the instrument.

In November of 2006 the survey was administered in person to those commissioners who attended the Kansas Association of Counties meeting on November 21, 2006. Although all county commissioners were not participating in the meetings, 45 commissioners filled out surveys. Any commissioners that did not fill out surveys or were not present at the meeting in November were added to the list for mail distribution in January of 2007.

A pre-notice post card was sent to the non-responding commissioners and the mayors in the target population on January 2, 2007. The post card was sent to alert potential respondents of the survey that was to be distributed. One week later (January 8, 2007) a cover letter and the survey were sent with a self-addressed, stamped envelope. It was brought to the researcher's attention on January 10, 2007 that the self-addressed, stamped envelope had not been included. The survey was resent to all potential respondents on January 12, 2007 with an insert of explanation and the self-addressed, stamped envelope. The fourth mailing (January 18, 2007) was a reminder/thank you postcard. While no response was immediately required from this postcard, the target population was again reminded that they had been requested to participate in the survey. The fifth mailing (January 25, 2007) again sent a copy of the instrument with a second cover letter eliciting response. Each of these correspondences can be found in the figures 19-25. Data from the responding surveys were entered into an excel spreadsheet prior to exporting the data for statistical analysis. All data inputting was verified by a third party.

Of the total population surveyed (n=456), 245 surveys were returned. Of the 245 returned surveys, 15 were returned without the demographic information for tracking. These surveys were tagged as unverifiable and were not included in the results. Of the 230 verifiable surveys, 180 surveys were from commissioners (78.3%) and 50 surveys were from mayors (21.7%). Of the 230 verifiable surveys, 28 returned the surveys and requested not to participate (12.2%). The resulting 202 verifiable and included surveys were used for this study. This constituted a 44.3% rate of return. Rate of returns for each mailing were: Kansas Association of Counties meeting - 45 (19.5%); mailing two (survey) and three (corrected mailing) – 126 (54.8%); mailing five (non-response survey) – 47 (20.4%). Mailing one and four were postcards to solicit responses to the survey mailings, so no return rate is noted for those mailings. The original deadline for inclusion was extended by two weeks which allowed 12 (5.2%) more surveys to be included in this study.

Description of Respondent Demographics

The average age of the respondents was 59.19 years old with the youngest reported age of a commissioner at 36 years old and the oldest at 81 years old. On average, the time the elected officials had served in office was 5.9 years with the newest official serving 1 week in office and the longest serving official reporting 42 years in office.

The population, as a whole, is highly male with a female population of 10.4%. Respondents to this survey were 13.3% female. While the overall population for the survey was 75.6% commissioners and 24.6% mayors, the respondents to this survey were 78.3% commissioners and 21.7% mayors.

In order to examine the urban vs. rural demographic information, the number of counties, land mass, total population and the number of commissioners and mayors in the target population were compared to the included respondents for the survey. These percentages can be seen below in table 6.

Table 6 Rural vs. Urban respondent demographic

	Rural	Urban
Total number of counties in Kansas	88 (83.8%)	17 (16.2%)
Total land mass in Kansas	93.11%	6.89%
Total population of Kansas per 2000 census	65.29%	34.71%
Target population of Kansas commissioners and mayors (tier 1 and 2)	337 (73.9%)	119 (26.1%)
Responding and included commissioners and mayors for this survey	153 (75.7%)	49 (24.25%)

The table notes that while the target population is approximately 75% rural according to the definitions used in the literature, the respondents to the survey were also approximately 75% rural.

Research Question Analysis

The research question analysis will begin with the finding on the three guiding research questions as well as findings on the demographics information questions. These findings will be followed by a discussion on a possible model for the target population regarding participation in emergency management training.

Participation

The first research question asks to what extent local elected government officials in Kansas are participating in federally mandated emergency management and disaster training. Although the numbers are self-reported, the target population that were included in the findings (n=202) stated 51.9% (n=105) of these elected officials had taken NIMS training. The self-reported numbers for ICS training were lower at 40.1% (n=81).

The survey questionnaire asked only if the individual had taken the training. FEMA and Homeland Security require that for completion the individual must take the training and pass the post-assessment at a 75% pass rate. This test must be submitted to the Emergency Management Institute (EMI) online or in written form for scoring and inclusion in the national database. These FEMA/Homeland Security requirements were not included in the questionnaire for the participants.

Due to the higher than anticipated participation rate, completion rates for both tests were requested of Kansas Emergency Management. Although the researcher was unable to acquire the completion rates, the director of Homeland Security in South-Central Kansas was able to comment on the completion rates for elected officials in one of the counties in his region. The South-Central region had a 52.2% return rate (n=92). Of the included elected officials in the South-Central region, 25% (n=12) self-reported completing NIMS training and 18.75% (n=9) self-reported completing ICS training. Numbers acquired from Homeland Security stated that while there were 12 elected officials for the individual county that were part of the target population, only one individual had reported completion and had taken the training by the EMI requirements. This individual had been a chief of police prior to his assuming his current elected office in January of 2007.

Education Participation Scale

The second guiding question for this research was what are the factors that local elected government officials consider when making the decision to participate in continuing education and emergency management training in the state of Kansas? To answer this question the EPS – A was incorporated into the survey instrument. An analysis of the factor structure of the EPS-A as it pertains to elected officials was done. The reliability alphas for this study are included in the following table and compared to prior survey reliability numbers as discussed in the literature review.

Table 7 Reliabilty Coefficients of the EPS - A

EPS-A factors	Boshier, 1991	Garst and Reid, 1999	Morstain and Smart, 1974	**Norton, 2007**
Social Relationships	.91	.85	.86	**.8409**
External Expectations	.80	.70	.82	**.8434**
Social Welfare	.91	.86	.80	**.8527**
Professional Advancement	.80	.60	.72	**.8157**
Escape/Stimulation	.80	.78	.80	**.8275**
Cognitive Interest	.76	.83	.77	**.8180**

As seen in the above table, the reliability of the EPS-A fell within the same ranges as stated in prior research. These scores verified that the EPS-A was a reliable instrument for dialogue regarding the factors that motivate local elected officials to participate in training.

Upon closer examination of the instrument, it was found that when comparing the component matrix for this study (figure 16) there was a marked amount of interplay between the factors. Only the factor of escape/stimulation (#4) loaded as anticipated. The factor of external expectations (#5) only had one variable that loaded differently; to fulfill my professional obligations (Q#61) which loaded as social welfare. The factors of social welfare (#1), social relationships (#2) and professional advancement (#3) had interaction between the three factors. Social welfare had three of the five questions attributed to that factor load in social relationships, Social relationships had three of the six questions load in professional advancement, and professional advancement had two of the six questions load in social welfare.

When the factors were realigned for this group in to a new structure, a revised EPS for elected officials formed (figure 17). The factors that emerged were named; role as a public servant, personal and professional development, professional development and networking as well as the same three factors of escape/stimulation, external expectations and cognitive interest.

After loading the questions into the new EPS for elected officials a more accurate tool was formed for uncovering the motivation for participation by elected officials in training. The new question structure was tested for internal consistency and reliability through a Cronbach's alpha. The following table notes the reliability coefficients of each of the EPS – elected officials factors.

Table 8 Reliability coefficient of EPS for elected officials

Factor	***Reliability coefficient (alpha)***
Role as a Public Servant	.8711
Personal and Professional Development	.8864
Professional Development and Networking	.8717
Escape/Stimulation	.8348
External Expectations	.8305
Cognitive Interest	.6437

As the above table shows, the factors for the revised EPS for elected officials have a strong internal consistency. The factor of cognitive interest did not show reliability in the same range as the other factors. In the new structure, only two questions were considered relevant for cognitive interest; question 35 (to learn just for the sake of learning) and question 41 (to seek

knowledge for its own sake). The other four original questions were moved to personal and professional development (2) and role as a public servant (2). Suggestions for further use of this instrument will be explored in chapter five.

Deterrents to Participation Scale

The third question for this research was what are the barriers that effect non-participation of local elected officials in emergency management and disaster training in the state of Kansas? To answer this question the DPS - G was incorporated into the survey instrument. The reliability coefficients for this study are included in the following table and compared to prior survey reliability numbers as discussed in the literature review.

Table 9 Reliabilty coefficients for the DPS - G

DPS – G factors	Darkenwald and Valentine, 1985	Towers, 2003	**Norton, 2007**
Lack of confidence	.87	.78	**.8592**
Lack of course relevance	.83	.77	**.8885**
Time constraints	.72	.65	**.8414**
Low personal priority	.64	.65	**.7905**
cost	.75	.82	**.7541**
Personal problems	.40	.58	**.7431**

As noted in the above table, reliability coefficients for this study actually ran higher in some areas (lack of course relevance, time constraints, low personal priority and personal problems) than in previous studies.

The factor structure for the DPS-G can be found in table 9. When compared with the component matrix for this study (table 9) it can be noted that three factors of the DPS-G (lack of course relevance, time constraints and cost) loaded closely in this study as Darkenwald and Valentines loading values. Those values that loaded differently were: because my friends did not encourage my participation (Q#34)– loaded as low personal priority rather than lack of confidence; because my family did not encourage participation (Q#15)– loaded as personal problems rather than lack of confidence; because I don't enjoy studying (Q #2)– loaded as lack of confidence rather than low personal priority; and because of a personal health problem or handicap (Q#3) loaded as lack of confidence rather than personal problems. Questions that loaded in the matrix for this study, but were not relevant in prior studies were: because I didn't

know about courses available for adults (Q#12) – loaded as time constraints; because of transportation problems (Q#16) – loaded as cost; and because I prefer to learn on my own (Q#33) – loaded as lack of personal priority.

In general, the reliability of the DPS-G and the factor structure were relevant to this population. It was found that the DPS-G is an instrument that can be used in its current form to examine the barriers to participation by elected officials in training.

Demographic Variables

The demographic variables of age and rural/urban were surveyed and tracked to ascertain if they had an impact on the participation of the target population. Each of the two demographic variables was explored using methodology that would investigate each variable independent of the other.

Age

The demographic variable of age was explored to see if there was a correlation between age and the decision to participate or not participate in the training. Of the participants (n=199) that gave their age on the survey, the mean was 59.18 years with the youngest at 36 years old and the oldest at 81 years old. The responses fell into a normal curve with a standard deviation of 9.2. When broken down into quartiles and cross tabulated by the self-reported numbers on participation in NIMS training, no difference was found in the 4 quartiles as the age quartiles reported 25.3, 23.2, 25.3 and 26.3% participation respectfully. Conversely, the quartiles were also equally distributed in their non-participation with 24.4, 26.7, 25.6 and 23.3% reporting non-participation. An independent *t*-test was calculated comparing the mean score of participants who reported their ages and participated in NIMS vs. those that reported their ages and did not participate in NIMS. No significant difference was found (t (193) = .670, p>.05). The mean age of those that participated (m =59.05, sd = 8.77) and those that did not participate (m=59.05, sd=9.96) did not have a significant effect on participation by this population.

Rural/Urban

The demographic variable of rural/urban was also explored to sense if there was a relationship between the geographic factor of urban/rural and participation. The self-reported completion rates for NIMS were used as there was a higher completion reporting rate (51.5%)

than for ICS (40.7%). Participants classified as urban and self-reporting as participating in NIMS were 20.4%, while 55% of those reporting as non-urban (rural) self-reported as participating in NIMS. A chi-square test of independence was done comparing completion of NIMS and rural/urban location. No significant relationship was found (chi-square (1) = 1.536 ($p > .05$). The geographic factor of rural vs. urban was not found to have a significant impact on participation by the target population.

Time in position

The self-reported time in position was verified with participation to see if there was any significance between the participation variable and time in position. An independent t-test was calculated comparing the mean time in office for those that participated in the training with the mean of those that did not participate in the training. No significance was found ($t(194) = .197$, $p>.05$). The mean of the time in position of those that did participate in NIMS ($m= 5.83$, $sd = 5.09$) was not significantly different from the mean time in position of those that did not participate in NIMS ($m=6.18$, $sd=6.34$).

NIMS and ICS as predictors

The predictability of participation between NIMS and ICS was explored to see if there was a correlation between participation in one course and/or the other. A chi-square test of independence was calculated comparing the instances of participation in NIMS with the instances of participation in ICS. A significant interaction was found (chi-square(1) = 78.382, $p<.05$). These findings helped to verify the percentages of completion of both courses (72.4%) is not due to chance. Participants in the target population are more likely to finish both courses if they have taken the one of the courses.

Predicting a model for participation in training

A result from this research is the ability to define a model that would predict the participation of elected officials in the target population in emergency management training. To begin the process, a stepwise logistic regression analysis was undertaken to give a general overview of the relationship of the factors to participation. Fidell and Tabachnick (1996) suggest that a stepwise logistic regression "is best seen as a screening or hypothesis-generating technique." Fidell and Tabachnick propose that because the stepwise logistic regression is only

for screening, setting the confidence intervals at a higher range ($p \leq .2$) to open the possibilities on the relevance of the factors for the model is suggested

Based on that recommendation, the variables for this study were loaded in a forward stepwise logistic regression to see if a model for participation could be formulated. Those variables that were considered relevant when the Wald p-value is less than ($p \leq .2$) were to be considered as possibilities for the model. Nagelkerke R^2 was used to measure the strength of the association and Hosmer and Lemeshow's chi-square test of goodness of fit was used to reveal the relevance of the dependent variables to the participation variable. The initial forward step-wise analysis on NIMS found that only the variable of deterrent - personal problems (DPSPP) was significant. To further verify the findings, the DPSPP variable was excluded while the other variables were included. It was noted that low personal priority (DPSLPP) was then noted as significant. The working hypothesis then became that the factors may have some degree of multicollinearity. Due to the possibility of multicollinearity, the assumption was that the significant variables may be so interrelated for this population that they would need to be removed individually to have a true picture of the model. Table 10 notes the variables that were found to be relevant for NIMS participation when individually extracted from the analysis and table 11 notes the variables that were found to be relevant for ICS participation when the same methodology was used.

Table 10 Regression variables for NIMS

NIMS				
Variable	**Wald ($p \leq .2$)**	**Significance**	**Nagelkerke R^2**	**Hosmer and Lemeshow chi-square**
deterrent – personal problems (DPSPP)	3.358	.067	.021	11.864
deterrent – low personal priority (DPSLPP)	2.996	.083	.020	5.829
deterrent – lack of confidence (DPSLC)	2.804	.094	.014	1.5
deterrent – cost (DPSCOST)	2.046	.153	.034	6.619

Independent *t*-tests were run on the variables to review their significance to participation in NIMS. Those factors that were significant were DPSPP ($t(195) = -1.930$, $p<.02$), DPSLPP ($t(195) = -1.931$, $p<.02$), and DPSLC ($t(195) = -1.749$, $p<.02$). The factor of cost (DPSCOST) was not found to be significant ($t(195) = -1.516$, $p>.02$)

Table 11 Regression variables for ICS

ICS				
Variable	**Wald (p≤.2)**	**Significance**	**Nagelkerke R^2**	**Hosmer and Lemeshow chi-square**
AGE - demographic	1.875	.171	.013	21.153

The only variable that was found to be significant for participation in ICS was age. When an independent sample t-test was run to calculate the mean scores of those reporting participation and their age, no significant difference was found ($t(193) = -.034$, $p>.05$).

In review, the significant factors for participation by the target population were personal problems, low personal priority and lack of confidence. The factors of age and cost were initially observed as inclusive, but upon closer scrutiny were excluded from the model.

Themes in the qualitative responses

The final question on the instrument asked the respondents "if you have not take and completed NIMS 700 and ICS 100, what could you tell us about why you have not finished these courses?" The answers given by the participants can be seen in total in table 25. Although not all answers could be scored in a specific area, major themes did evolve. The five major themes were noted as: lack of knowledge or understanding of the requirements, time constraints, notations that they are in the process of completing the courses, or issues with availability of the training. The following table notes the major themes as compared to the total number of responses to the question (n=89).

Table 12 Qualitative responses to completion question by themes

Category	Number of responses	% to total responses
Lack of knowledge or understanding	26	29.2 %
Time constraints	13	14.6 %
In process	6	6.7 %
Availability	17	19.1 %

The largest number of responses were in the lack of knowledge or understanding category (n=26) followed by availability (n=17), time constraints (n=13) and finally those that indicated they were in process of completion (n=6). When taken together, nearly half of those that responded (48.3%) noted that they had either a lack of knowledge or understanding of the requirements or they had availability issues or questions with the training.

Summary

This study sought to understand the participation or non-participation of elected government officials in the state of Kansas in emergency management training. Through the three guiding research questions, participation in emergency management training, the motivating factors to participation in the training and the deterrents to participation in the training were explored. The demographics of the respondents to the survey were reflective of the target population as a whole and were observed in the 44.3 % rate of return to the survey.

The first research question on rate of participation was self-reported as 51.5% participation in NIMS training and 40.5% participation in ICS training. The target population may be unaware of the Homeland Security and Kansas Emergency Management parameter for participation and are not in compliance with the full emergency management institute (EMI) testing and reporting standards.

The second research question asked about the factors regarding participation. Although the EPS- A showed strong reliability to the target population, upon closer scrutiny the questions did not align for this population as they had for previously surveyed populations with the EPS-A. A new version of the EPS for elected officials has been suggested for subsequent survey work which better reflects the motivations of elected officials in training decisions.

The third question asked about the barriers to participation. The DPS-G was found to be a valid and reliable instrument for the target population. This instrument can be used in its current form to find the barriers that deter elected officials from participating in training.

Additional demographic variables of age and rural/urban as well as time in position were explored and none of these variable were found to be significant to the participation decision. A significant relationship exists between participation in NIMS and participation in ICS. It was noted that if a participant has taken one class, they have a higher likelihood to report taking the other. The possibility of a prediction model for participation was explored through a stepwise logistic regression. The model should be explored further utilizing several factors from the DPS – G (personal problems, lack of personal priority, and lack of confidence) as possible significant barriers. The qualitative responses on the survey noted the high percentage of respondents that had a lack of knowledge or understanding of the requirements or had questions on availability of the training.

Implications from these finding and recommendations for the populations and further research will be discussed in Chapter 5.

CHAPTER 5 - SUMMARY AND RECOMMENDATIONS

"Natural disasters will always be chaotic situations. But with proper planning and preparation, it is possible to respond quickly to restore order and begin recovery efforts. "

Bob Riley, Governor, State of Alabama

Select Committee hearing, November 9, 2005

Introduction

This work sought to understand the motivations for participation and deterrents to participation that effect the decision by elected officials in the state of Kansas to participate in emergency management training. Although the federal government has tied emergency preparedness grant money to the completion of this training, the current training is not being undertaken at the federally desired 100% rate. There is a current national trend to lower the training expectation for elected officials perhaps because of the officials' non-participation. This trend would be in error as this training is essential for the mitigation, response and recovery efforts of the jurisdictions which the elected officials serve. This work has shown that the elected officials do not have an issue with participating in training, but that they are not aware of the requirements and the expectation to fulfill those requirements. Further, this is training that has not been given previously to elected officials. In the past, elected officials have seen their primary duties as dealing with the policies and budgetary issues for their jurisdiction. They have historically relied on first responders and emergency management personnel to guide the elected officials in their duties during emergencies. This paradigm shift for involvement has been necessitated by changes in how emergencies are handled and the adoption of the national response plan (NRP), the national incident management system (NIMS) and the incident command system (ICS). These new parameters put the elected official at the table when decisions are made regarding the safety and welfare of their constituents. Relying on the knowledge and expertise of others no longer is sufficient for an elected official to remain competent during a critical incident.

In this chapter we will explore the conclusions that can be made from the findings of the research as well as the implications and recommendations for future training of elected officials and recommendations for further research.

Conclusions

To begin this discussion, it should be noted that the demographics of the respondents to the survey were roughly the same as the target population for the state of Kansas. The percentage of urban/rural, male/female and the age variable aligned approximately to the target population as a whole. This may allow us to make some generalizations to the population of elected officials in the state of Kansas.

Of note is the EPS-A factor analysis and how it represented the population of elected officials. Because there was interplay between the variables included in the factors of social welfare, social relationships and professional advancement, it led to the question of realignment of the variables resulting in a new instrument. The factors of the role of a public servant, personal and professional development, and professional development and networking better reflected this population's motivation to participate in training.

Upon investigation, the new alignment of EPS factors is consistent with the fact that only 4 of the 105 counties have full-time commissioners. Most of the commissioners and mayors in the target population hold full-time jobs and serve their communities in elected positions as an extended set of duties. For them, holding office and taking any training connected with their elected office is part of their public service to their communities. Their motivation to take training is contingent upon how it can help them to serve their communities. If the target population can be given a strong case for why this training is important, they will participate. Currently, there is not a pervasive knowledge by the commissioners and mayors that emergency management knowledge and training is part of their responsibilities.

This status as a part-time occupation for the target population also brings forth the questions of time constraints. While time constraints were not significant as a deterrent to participation, they were noted specifically by some respondents in the qualitative answers. Again, it is believed that increasing the understanding of the target populations required involvement in emergencies will raise the awareness and increase participation.

Another area of interest is surrounding the completion numbers for elected officials. If FEMA and Homeland Security are requiring elected officials to take this training for funding in upcoming grant cycles, there must be a conscious effort to give the elected officials concise, correct information on their compulsory participation responsibilities. This research has found that the elected officials will participate if they feel that the training is in their area of responsibility and it will help improve their job skills and enhance their efficiency as an elected official. There has been confusion on the requirements for elected officials, much of it due to the fact that the federal government cannot require an elected to take the training as they are not federal or state employees. Consequently, wording such as "should" and "suggested" have been used. This has led to uncertainty on the requirements. An effort should be undertaken to correct the misinformation on training and every effort should be made to make the training available for elected officials at their association meetings such as the Kansas Association of Counties (KAC) and the League of Kansas Municipalities (LKM) annual meetings.

Currently there are cases in the courts in Louisiana that have stemmed from the rescue and recovery efforts following Hurricanes Katrina and Rita that may effect the legal ramifications connected with emergency management training. These cases may open the elected official and their jurisdiction to legal liability and public accountability. These cases should be monitored and any legal precedents should be communicated to the target population.

As part of the new training effort the elected officials must understand the verification process required by FEMA and EMI as well as an understanding of the requirements for completion as stated by FEMA. This study has noted that once an elected official takes one of the training courses, there is a high correlation that they will take the other course. All of this should be taken in to account and incorporated to help with the training effort.

Implications

Implications for elected officials, ongoing training needs of elected officials and the field of education as it pertains to participation can be seen in several of the findings of this study. One of the findings of this study was that the participation motivations as seen in the education participation scale-A had a different factor structure for this population than previous populations. A new version of the EPS-A has been proposed that is geared to the servant leadership mindset of the majority of elected officials. As this new version is explored and

validated, it could be used to further the discussions regarding participation of elected officials in other types of training as well as a continued study on the motivations and deterrents to participation.

There should also be a continuing concern during a crisis due to lack of training by the elected officials. An incident not handled using NIMS and ICS standards can be overcome by first responders for the initial response, but the recovery and continuing mitigation can have long lasting effects on the community if the elected officials are not fully aware of the responsibilities and requirements that are in place for the recovery process. There can be financial burdens to the citizenry if information and materials are not tracked and reported. After an incident, the morale of the government entities and the jurisdiction can also suffer as it takes longer than necessary to see recovery. In the future, there may be legal precedents which also will affect the jurisdiction. Although there is a clause in the Kansas state statutes stating that elected officials cannot be sued during a disaster, there are currently at least sixteen civil cases in Louisiana stemming from Hurricane Katrina that have the ability to set legal precedent to the contrary.

Finally, the responsibilities of the office speak specifically to the duties of commissioners in particular when it notes that county commissioners are given, and must fulfill, the duties laid out in the local emergency operations plan in accordance with Kansas state statutes (KAN. STAT. ANN. § 48-932). Fulfilling those duties to the fullest cannot be done if the commissioner or mayor does not know the command structure (ICS) or the operational structure (NIMS) that the local emergency operations plan is functioning within.

Recommendations

This research may be generalizable as it pertains to training of elected officials in the state of Kansas, but more research is recommended in several areas. Replication of this study under different demographic and jurisdictional situations will help develop a true picture surrounding participation in emergency management training by local elected officials. There are also ramifications to the field of adult education, and participation studies in particular, that should be replicated, validated and explored.

Recommendations for elected officials training

This study has found that there is an issue with the target populations understanding of their training needs and requirements for NIMS and ICS training. A concerted effort should be

made to raise awareness of the need for training and the potential ramifications of non-participation with the target population. There should also be a marketing effort on the requirements for FEMA/EMI completion of the training and a clear and concise description of the courses and their potential impact on the ability of the elected official to function during all phases of the emergency management process. These efforts could be done in conjunction with the annual meetings for these groups; Kansas Association of Counties (KAC) and the Kansas League of Municipalities (KLM). The self-reported completion numbers of the elected officials in the state of Kansas should be verified with the FEMA/EMI database to verify that the self-reported numbers are in agreement to the database that FEMA uses to verify compliance.

There are also avenues for more research with elected officials. This work could be used as a baseline measurement to see if there is a change in the participation rate of elected officials in the state of Kansas in the future. There should also be participation studies done in other states and jurisdictions to see if the results from this study are comparable in other states. In addition to the participation survey, the target population should be asked directly what their reasons are for participation or non-participation. There may also be more research needed in the usage, availability and acceptance of online training for this target population. Since the initial offerings of this training were done online, it is not currently known if this served as a deterrent to the target population.

The final recommendation is to compare participation by elected officials in emergency management training with participation in other types of training. The question would be if the elected official sees emergency management as an integral part of their responsibilities as much as other responsibilities. The case should be made that emergency preparedness training is comparable with budgeting and fiscal governance training for the elected official.

Recommendations for further research

Recommendations for other research would include continued research with other states to see other elected officials have the same outcomes as Kansas. If the outcomes are not similar, research should be done to find the differences and the reasons the differences exist between the target populations.

There should also be ongoing research surrounding the relevant factors for rural society. The definition of rural used for this study was consistent with past research by the Kansas

Department of Health and Environment. There are other definitions of rural that exist throughout the literature. Finding an all inclusive definition of rural and exploring how rural has been defined throughout the research would be helpful as efforts are underway to impact rural society. For rural society in general, any deterrents to participation dictated by geography, lack of opportunity for training, lack of availability of online or classroom options should be explored. Any resistance to online training by rural populations and the factors that affect resistance should also be explored.

Test/retest on the EPS for elected officials and continued study of the suggested instrument will verify the validity and reliability of the instrument with this population. The EPS for elected officials should also be used in studies with other states elected officials to see if the factor analysis is similar to the findings in Kansas. Other groups of elected officials should be surveyed to see if there is consistency outside of state boundaries. It is possible that this new instrument could help further the knowledge on participation by this group of individuals and could bring further insight into their participation in continued training.

"Fifty-six hours before it hit, federal officials knew Katrina had the potential to flood 75 percent of New Orleans, killing tens of thousands of residents and trapping hundreds of thousands in up to 20 feet of water." "Despite adequate warning fifty-six hours before landfall, Louisiana Gov. Kathleen Blanco and New Orleans Mayor Ray Nagin delayed ordering a mandatory evacuation in New Orleans until nineteen hours before landfall."

(U. S. House of Representatives, 2006)

"The really worrisome issue isn't the failure of immediate response to Katrina – it's the inability of the intergovernmental system to bounce back. Yet we know (whether it's the Big Earthquake in California, another major hurricane on the East Coast, an avian flu pandemic, or a terrorist attack) that we're going to have to rise to similar post-disaster challenges again. Perhaps soon." (Kettl, 2006)

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Appendix A - Figures and Tables

Figure 12 Government acronym listing

It is common that many acronym are used in government to designate agencies and divisions. The following acronym's are pertinent to this research and have been defined by the University of Colorado at Boulder government acronym listing (2006) unless otherwise noted.

CEM – comprehensive emergency management

CRP – crisis relocation plan

DHS – Department of Homeland Security

Disaster – a sudden and dramatic emergency (Drabek & Hoetmer, p. 30)

FEMA – federal emergency management agency

Home Rule - is defined by the Kansas constitution article 12 § 5 as establishing the powers of local governments to rule as they see fit for the betterment of their constituents.

HSPD – Homeland Security Presidential Directive

ICS - Incident command system

IEMS – integrated emergency management system

LEOP - Local Emergency Operations Plan

NIMS – National incident management system

NRP – national response plan

Table 13 FEMA – Organizational responsibilities for response functions

Table 4-1: Organizational Responsibilities for Response Functions

	Chief Executive Official	Fire Department	Police Department	Health and Medical Coordinator	Public Works	Emergency Program Manager	EOC Manager	Communications Coordinator	Public Information Officer	Evacuation Coordinator	Mass Care Coordinator	Resource Manager	Education Department	Animal Care and Control Agency	Warning Coordinator	Comptroller/Chief Financial Officer	Volunteer Organizations	Other Organizations
Direction and Control	P	P/S	P/S	P/S	P/S	S	S	S	S	S	S	S	S	S	S	S	S	S
Communications	S	S	S	S	S	S	S	P	S	S	S	S	S	S	S	S	S	S
Warning	S	S	S	S	S	S	S	S	S	S	S	S	S	S	P	S	S	S
Emergency Public Information	S	S	S	S	S	S	S	S	P	S	S	S	S	S	S	S	S	S
Evacuation	S	S	S	S	S	S	S	S	S	P	S	S	S	S	S	S	S	S
Mass Care	S	S	S	S	S	S	S	S	S	S	P	S	S	S	S	S	S	S
Health and Medical	S	S	S	P	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Resource Management	S	S	S	S	S	S	S	S	S	S	S	P	S	S	S	S	S	S

P ..... *Primary Responsibility*
S ..... *Support Responsibility*
P/S ..... *Depending on the nature and scope of the emergency, some jurisdictions will put one of these agencies in charge.*

★ **Note:** *The above matrix is not all-inclusive, nor prescriptive; it is meant only to illustrate how responsibilities can be summarized.*

Table 14 Distinction between a routine emergency and a major incident

ROUTINE EMERGENCY	MAJOR INCIDENT
Familiar even, standard procedures	Unusual event, standard procedures may be inadequate
Known faces, tasks, procedures	Unfamiliar "teams"; unknown elements
Coordination within own organization	Inter-organizational coordination
Adequate communications	Overload of telephones, radios and roads
Communicate in-house	Share with other agencies
Familiar terms/language	Different terminologies
Local press/media	National/international press
Adequate resources	Diverse resources required; resources may be inadequate or exceed managerial capacity
"Do it all"	Work with multiple agencies
Relatively contained, scale and duration are limited	Large-scale risks, high variability, longer time scale, wide area affected
Orderly procedures	Limited control
Limited number of parties involved	Hundreds of rescue personnel, media etc.
Little impact on local services	Major disruption of local infrastructure and services

Source: Flin, 1996

Table 15 Event Characteristics that influence the difficulty of incident command

Event Characteristic	Easiest to command	Worst to command
Speed of onset	Slow – days	Fast – minutes
Warning	Prior indications	None
Preparation time	Months – regular event	None
Hazard status	Low	High
Risk to responders	Low	High
Casualties	None	Hundreds
Access	Good	Remote/awkward
Number of responders	Few: 20-30	Hundreds
Stage	Initiating event completed	Events escalating
Major risks	Single	Multiple
Services involved	One	All
Incident commanders	One	Several
Decision demands	Routine – familiar	Complex, unfamiliar
Resources	Adequate	Insufficient
Knowledge of site	Very familiar	Unfamiliar
Time of onset	Day-time (light and more people on duty, although possibly more casualties)	Night-time (easier under some circumstances)
Location	Single site	Multiple sites/incidents, or moving (e.g. bus hijack)

Source: Flin, 1996

Table 16 Key elements of the recovery process

Personal leadership	Local decision making
	Priority of intergovernmental relations
	Redevelopment of damaged areas
	Long-range view of rebuilt community
	Ability to marshal internal and external resources
Ability to Act	Availability of state and federal resources
	Reliance on local rather than external resources
	Local administrative and technical capability
	Horizontal and vertical intergovernmental relationships
Knowing what to do	Local knowledge of requirements for state and federal assistance
	Identification of sources of assistance
	Realistic, flexible, and current preparedness plans

Source: Drabek & Hoetmer, 1991, p. 233

Table 17 Presidential Homeland Security Directives post 9/11/2001

Number	Release date	Subject
1	October 2001	Establishing a Homeland Security Council
2		Immigration policy – establishing a foreign terrorist training task force
3		Established the Homeland Security threat warning system
4		National strategy to combat weapons of mass destruction
5	***February 2003***	***Criteria for management of domestic incidents – establishment of NIMS***
6		Integration and use of screening information
7		Critical infrastructure identification, prioritization and protection
8	***December 2003***	***Policies to strengthen national preparedness – national preparedness goal***
9		Defense of United States agriculture and food
10		Bioterrorism defense
11		Comprehensive terrorist screening procedures
12		Credentialing of federal employees

Source: www.whitehouse.gov

Figure 13 Presidential Directive 8 (HSPD-8); Sections 17-19

Training and Exercises

(17) The Secretary, in coordination with the Secretary of HHS, the Attorney General, and other appropriate Federal departments and agencies and in consultation with State and local governments, shall establish and maintain a comprehensive training program to meet the national preparedness goal. The program will identify standards and maximize the effectiveness of existing Federal programs and financial assistance and include training for the Nations first responders, officials, and others with major event preparedness, prevention, response and recovery roles. Federal departments and agencies shall include private organizations in the accreditation and delivery of preparedness training as appropriate and to the extent permitted by law.

(18) The Secretary, in coordination with other appropriate Federal departments and agencies, shall establish a national program and a multi-year planning system to conduct homeland security preparedness-related exercise that reinforces identified training standards, provides for evaluation of readiness, and supports the national preparedness goal. The establishment and maintenance of the program will be conducted in maximum collaboration with State and local governments and appropriate private sector entities. All federal departments and agencies that conduct national homeland security preparedness-related exercise shall participate in a collaborative, interagency process to designate such exercises on a consensus basis and create a master exercise calendar. The Secretary will ensure that the exercises included in the calendar support the national preparedness goal. At the time of designation, Federal departments and agencies will identify their level of participation in national homeland security preparedness-related exercise. The Secretary will develop a multi-year national homeland security preparedness-related exercise plan and submit the plan to me through the HSC for review and approval.

(19) the Secretary shall develop and maintain a system to collect, analyze, and disseminate lessons learned, best practices, and information from exercises, training events, research, and other sources, including actual incidents, and establish procedures to improve national preparedness to prevent, respond to, and recover from major events. The Secretary, in coordination with other Federal departments and agencies and State and local governments, will identify relevant classes of homeland-security related information and appropriate means of transmission for the information to be included in the system. Federal departments and agencies are directed, and State and local governments are requested, to provide this information to the Secretary to the extent permitted by law.

Source: www.whitehouse.gov

Table 18 Urban/semi-urban counties in Kansas (2000 census)

Butler
Crawford
Douglas
Franklin
Geary
Harvey
Johnson
Leavenworth
Lyon
Miami
Montgomery
Reno
Riley
Saline
Sedgwick
Shawnee
Wyandotte

Table 19 Survey Instrument

Elected Officials Participation Survey

Directions: Every year more and more adults participate in some kind of educational activity. Examples include courses, workshops, seminars and training programs offered by schools, colleges, and other organizations or community groups. However adults sometimes find it hard to participate in these activities even when they want to. Decide how important each one was in your decision to participate or not participate in this training.

PLEASE CIRCLE ONLY ONE RESPONSE NUMBER FOR EACH REASON. IF A REASON IS NOT APPLICABLE FOR YOU, CIRCLE NUMBER '1'.

	Reasons	Not important	Slightly important	Somewhat important	Quite important	Very important
1	Because I felt I couldn't compete with younger students	1	2	3	4	5
2	Because I don't enjoy studying	1	2	3	4	5
3	Because of a personal health problem or handicap	1	2	3	4	5
4	Because I didn't think I would be able to finish the course	1	2	3	4	5
5	Because I didn't have time for the studying required	1	2	3	4	5
6	Because I wanted to learn something specific, but the course was too general	1	2	3	4	5
7	Because I didn't meet the requirements for the course	1	2	3	4	5
8	Because the courses available did not seem interesting	1	2	3	4	5
9	Because the course was offered at an inconvenient location	1	2	3	4	5
10	Because I couldn't afford the registration or course fees	1	2	3	4	5
11	Because I felt I was too old to take the course	1	2	3	4	5
12	Because I didn't know about courses available for adults	1	2	3	4	5
13	Because of the amount of time required to finish the course	1	2	3	4	5
14	Because the course was scheduled at an inconvenient time	1	2	3	4	5

Please continue on the next page

	Reasons	Not important	Slightly important	Somewhat important	Quite important	Very important
15	Because my family did not encourage participation	1	2	3	4	5
16	Because of transportation problems	1	2	3	4	5
17	Because the courses available were of poor quality	1	2	3	4	5
18	Because I was not confident of my learning ability	1	2	3	4	5
19	Because of family problems	1	2	3	4	5
20	Because I'm not that interested in taking courses	1	2	3	4	5
21	Because participation would take away from time with my family	1	2	3	4	5
22	Because I had trouble arranging for childcare	1	2	3	4	5
23	Because the available courses did not seem useful or practical	1	2	3	4	5
24	Because I wasn't willing to give up leisure time	1	2	3	4	5
25	Because the course was offered in an unsafe area	1	2	3	4	5
26	Because education would not help me in my job	1	2	3	4	5
27	Because I felt unprepared for the course	1	2	3	4	5
28	Because I couldn't afford miscellaneous expenses like travel, books, etc.	1	2	3	4	5
29	Because the course was not on the right level for me	1	2	3	4	5
30	Because I didn't think I could attend regularly	1	2	3	4	5
31	Because my employer would not provide financial assistance or reimbursement	1	2	3	4	5
32	Because I didn't think the course would meet my needs.	1	2	3	4	5
33	Because I prefer to learn on my own	1	2	3	4	5
34	Because my friends did not encourage my participation	1	2	3	4	5

Please continue on the next page

		No influence	Little influence	Moderate influence	Much influence	Very Much influence
35	To seek knowledge for its own sake	1	2	3	4	5
36	To share a common interest with someone else	1	2	3	4	5
37	To secure professional advancement	1	2	3	4	5
38	To become more effective as a citizen	1	2	3	4	5
39	To get relief from boredom	1	2	3	4	5
40	To carry out the recommendation of some authority	1	2	3	4	5
41	To satisfy an inquiring mind	1	2	3	4	5
42	To give me higher status in my job	1	2	3	4	5
43	To fulfill a need for personal associations.	1	2	3	4	5
44	To keep up with competition	1	2	3	4	5
45	Change activity to activities	1	2	3	4	5
46	To increase my competence in my job	1	2	3	4	5
47	To gain insight into myself	1	2	3	4	5
48	To prepare for service to the community	1	2	3	4	5
49	To gain insight into human relations	1	2	3	4	5
50	To have a few hours away from responsibilities	1	2	3	4	5
51	To become acquainted with congenial people	1	2	3	4	5
52	To provide a contrast to the rest of my life	1	2	3	4	5
53	To obtain some immediate practical benefit	1	2	3	4	5
54	To get a break in the routine of home or work	1	2	3	4	5
55	To improve my ability to serve mankind	1	2	3	4	5
56	To fulfill requirements of a government agency	1	2	3	4	5
57	To keep up with others	1	2	3	4	5
58	To improve my social relationships	1	2	3	4	5

Please continue on the next page

		No influence	Little influence	Moderate influence	Much influence	Very Much influence
59	To carry out the expectation of someone with formal authority	1	2	3	4	5
60	To take part in an activity which is customary in the circle in which I move	1	2	3	4	5
61	To fulfill my professional obligation	1	2	3	4	5
62	To comply with the suggestions of someone else	1	2	3	4	5
63	To satisfy my intellectual curiosity	1	2	3	4	5
64	To improve my ability to participate in community work	1	2	3	4	5
65	To comply with recommendations of someone else	1	2	3	4	5
66	To increase my competence in my job	1	2	3	4	5
67	To obtain some practical benefit	1	2	3	4	5
68	To feed my appetite for knowledge	1	2	3	4	5

Demographic Questions:

1. Name _____
2. Please check the office that you currently hold:
   a. □ Commissioner for _____ (county name)
   b. □ Mayor for _____(city name)
3. Your current age _____
4. How long have you held this position? _____
5. Have you taken and completed NIMS 700 training? _____
6. Have you taken and competed ISC 100 training? _____
7. If you have not taken and completed NIMS 700 and ICS 100, what could you tell us about why you have not finished these courses? _____

_____

_____

_____

Thank you for your participation in this survey!

Figure 14 Pilot survey feedback questions

Pilot feedback questions

1. How did you feel about the length of the survey?

2. Were any of the questions unclear?

3. Was there anything that you feel should have been included and was not?

4. Did you feel there were any questions that were not relevant?

5. What else do you feel could be asked that would get to the heart of the issue of participation?

Figure 15 Instrument modification table

DPS modifications

Reasons		changes
1	Because I felt I couldn't compete with younger students	
2	Because I don't enjoy studying	
3	Because of a personal health problem or handicap	Delete or handicap
4	Because I didn't think I would be able to finish the course	
5	Because I didn't have time for the studying required	
6	Because I wanted to learn something specific, but the course was too general	
7	Because I didn't meet the requirements for the course	
8	Because the courses available did not seem interesting	
9	Because the course was offered at an inconvenient location	
10	Because I couldn't afford the registration or course fees	
11	Because I felt I was too old to take the course	
12	Because I didn't know about courses available for adults	Delete for adults
13	Because of the amount of time required to finish the course	
14	Because the course was scheduled at an inconvenient time	
15	Because my family did not encourage participation	
16	Because of transportation problems	Replace problems with issues
17	Because the courses available were of poor quality	
18	Because I was not confident of my learning ability	
19	Because of family problems	Replace problems with difficulties
20	Because I'm not that interested in taking courses	
21	Because participation would take away from time with my family	
22	Because I had trouble arranging for childcare	delete
23	Because the available courses did not seem useful or practical	
24	Because I wasn't willing to give up leisure time	
25	Because the course was offered in an unsafe area	
26	Because education would not help me in my job	
27	Because I felt unprepared for the course	
28	Because I couldn't afford miscellaneous expenses like travel, books, etc.	
29	Because the course was not on the right level for me	
30	Because I didn't think I could attend regularly	
31	Because my employer would not provide financial assistance or reimbursement	

32	Because I didn't think the course would meet my needs.	
33	Because I prefer to learn on my own	
34	Because my friends did not encourage my participation	Replace friends with associates

DPS changes:
5 wording modifications
1 question deletion
28 questions were not modified

EPS modifications – see legend below

question	Variable	EPS question (Morstain's updated version)	modification
15	Social Relationships	To fulfill a need for personal associations and friendships	To fulfill a need for personal associations.
44	Social Relationships	To make new friends	Delete
17	Social Relationships	To meet members of the opposite sex	delete
35	Social Relationships	To improve my social relationships	
19	Social Relationships	To participate in group activity	Change activity to activities
10	Social Relationships	to be accepted by others	Delete
28	Social Relationships	to become acquainted with congenial people	
39	Social Relationships	to maintain or improve my social position	delete
21	Social Relationships	To gain insight into myself and my personal problems	Delete – and my personal problems
2	Social Relationships	To share a common interest with my spouse or a friend	To share a common interest with someone else
47	External expectations	To comply with instructions from someone else	To comply with recommendations of someone else
36	External expectations	to carry out the expectation of someone with formal authority	
6	External expectations	to carry out the recommendation of some authority	
42	External expectations	to comply with the suggestions of someone else	
33	External expectations	to comply with my employer's policy	To fulfill requirements of a government agency

38	External expectations	to meet with some formal requirements	To fulfill my professional obligation
37	External expectations	to take part in an activity which is customary in the circle in which I move	
32	Social Welfare	To improve my ability to serve mankind	
24	Social Welfare	To prepare for service to the community	
45	Social Welfare	to improve my ability to participate in community work	
25	Social Welfare	to gain insight into human relations	
4	Social Welfare	to become more effective as a citizen of this city	to become more effective as a citizen
12	Social Welfare	to supplement a narrow previous education	Delete
11	Professional advancement	To give me higher status in my job	
3	Professional advancement	To secure professional advancement	
16	Professional advancement	to keep up with competition	
20	Professional advancement	to increase my competence in my job	
22	Professional advancement	To help me earn a degree, diploma or certificate	Delete
27	Professional advancement	To clarify what I want to be doing five years from now	Delete
30	Professional advancement	to obtain some immediate practical benefit	
34	Professional advancement	to keep up with others	
14	Professional advancement	to acquire knowledge that will help with other courses	Delete
5	Escape/Stimulation	to get relief from boredom	
31	Escape/Stimulation	To get a break in the routine of home or work	
29	Escape/Stimulation	To provide a contrast to the rest of my life	
26	Escape/Stimulation	To have a few hours away from responsibilities	
9	Escape/Stimulation	To overcome the frustrations of day to day living	Delete

13	Escape/Stimulation	To stop myself from becoming a "cabbage"	Delete
18	Escape/Stimulation	To escape the intellectual narrowness of my occupation	Delete
40	Escape/Stimulation	To escape an unhappy relationship	Delete
23	Escape/Stimulation	To escape television	Delete
43	Cognitive Interest	To learn just for the sake of learning	To satisfy my intellectual curiosity
1	Cognitive Interest	To seek knowledge for its own sake	
8	Cognitive Interest	To satisfy an inquiring mind	
	Cognitive Interest	To increase my competence in my job	Added *
	Cognitive Interest	To obtain some practical benefit	Added *
	Cognitive Interest	To feed my appetite for knowledge	Added * * Garst and Ried, 1999

Legend: Black – no changes (22)
Teal – deleted (13)
Blue – change in wording (12)
Orange – added per Garst & Ried, 1999 (3)

Table 20 Factor structure for the DPS-G

Factor #1: lack of confidence

#	Variable	Loading value (Darkenwald and Valentine)	Loading Value (Norton)	Item mean	DPS-G scale rank
18	Because I was not confident of my learning ability	.83	.761	1.62	19
1	Because I felt I couldn't compete with younger students	.81	.760	1.47	26.5 (tie)
11	Because I felt I was too old to take the course	.77	.660	1.42	29
27	Because I felt unprepared for the course	.75	.459	1.46	28
4	Because I didn't think I would be able to finish the course	.61	.683	1.63	18
34	Because my friends did not encourage my participation	.61	.526* (LPP)	1.22	33
7	Because I didn't meet the requirements for the course	.60	.544	1.41	31
15	Because my family did not encourage participation	.50	.668** (PP)	1.47	26.5 (tie)

* 34 loaded as .526 on factor # 3 low personal priority

** 15 loaded as .668 on factor #5 Personal problems

Factor #2: Lack of course relevance

#	Variable	Loading value	Loading Value (Norton)	Item mean	DPS-G scale rank
23	Because the available courses did not seem useful or practical	.82	.642	1.98	9
32	Because I didn't think the course would meet my needs	.74	.674	2.00	8
8	Because the courses available did not seem interesting	.70	.796	1.94	11
17	Because the courses available were of poor quality	.70	.804	1.57	21
6	Because I wanted to learn something specific but the course was too general	.64	.588	1.83	12
29	Because the course not on the right level for me.	.62	.508	1.78	15

Factor #3: Low personal priority

#	Variable	Loading value	Loading Value (Norton)	Item mean	DPS-G scale rank
20	Because I'm not that interested in taking courses	.65	.621	1.56	22
24	Because I wasn't willing to give up my leisure time	.64	.649	2.03	7
2	Because I don't enjoy studying	.56	.629* (LC)	1.64	17
21	Because participation would take away from time with my family	.52	.541	2.47	5
26	Because education would not help me in my job	.52	.438	1.49	25

* 2 loaded as .629 on factor #1 lack of confidence

Factor #4: Time constraints

#	Variable	Loading value	Loading Value (Norton)	Item mean	DPS-G scale rank
13	Because of the amount of time required to finish the course	.77	.709	2.40	6
30	Because I didn't think I could attend regularly	.65	.493	2.54	4
5	Because I didn't have the time for the studying required	.64	.569	2.93	3
14	Because the course was scheduled at an inconvenient time	.64	.785	3.02	1
9	Because the course was offered at an inconvenient location	.52	.498	3.00	2

Factor #5: Personal Problems

#	Variable	Loading value	Loading Value (Norton)	Item mean	DPS-G scale rank
22	Because I had trouble arranging for child care	.57	.755	1.73	16
19	Because of family problems	.54	.667	1.44	30
3	Because of a personal health problem or handicap	.46	.719* (LC)	1.19	34
25	Because the course was offered in an unsafe area	.46	.626	1.95	10

* 3 loaded as .719 under #1 lack of confidence

Factor #6: Cost

#	Variable	Loading value	Loading Value (Norton)	Item mean	DPS-G scale rank
28	Because I couldn't afford miscellaneous expenses like travel, books, etc.	.87	.777	1.60	20
10	Because I couldn't afford the registration or course fees	.86	.727	1.82	13.5 (tie)
31	Because my employer would not provide financial assistance or reimbursement	.50	.624	1.55	23

Table 21 Component matrix of the DPS-G (factor analysis)

Rotated Component Matrix[a]

	Component					
	1	2	3	4	5	6
Q18	.761	.145	.127	9.380E-02	.161	.260
Q1	.760	7.566E-02	.134	8.468E-02	.188	.144
Q3	.719	5.293E-03	7.436E-02	9.299E-02	.226	.187
Q4	.683	.181	.109	.316	7.718E-02	7.088E-02
Q11	.660	-7.44E-02	.251	.112	.201	.160
Q2	.629	.211	.474	4.739E-02	-1.81E-02	1.299E-02
Q7	.544	.420	-5.93E-02	.204	.328	6.777E-02
Q27	.459	.201	.317	.123	.107	.338
Q17	.123	.804	6.024E-02	8.263E-02	.328	6.974E-02
Q8	.124	.796	.205	.247	6.100E-02	5.579E-02
Q32	-5.22E-03	.674	.298	.321	.140	.157
Q23	-4.52E-02	.642	.351	.197	.217	.107
Q6	.251	.588	.222	.289	9.621E-02	.152
Q29	.240	.508	.391	.152	9.943E-02	.332
Q24	.142	.111	.649	.300	.164	.148
Q20	.230	.282	.621	.166	.224	-9.92E-02
Q33	.181	.374	.600	5.040E-02	-9.16E-02	.164
Q21	5.080E-02	.117	.541	.515	.271	6.837E-02
Q34	.381	.152	.526	-9.77E-02	.151	.389
Q26	.228	.327	.438	.169	.235	.276
Q14	7.890E-02	.295	2.057E-02	.785	9.224E-02	.145
Q13	.191	.210	.314	.709	2.626E-03	5.824E-02
Q5	.199	.103	.507	.569	7.474E-02	4.513E-02
Q12	.210	.165	5.690E-02	.506	.238	.177
Q9	.126	.447	4.794E-02	.498	-.118	.299
Q30	.225	.349	.427	.493	.125	.188
Q22	.116	2.945E-02	.200	-9.07E-03	.755	.235
Q15	.364	.195	.106	.240	.668	7.397E-02
Q19	.307	.175	.134	.133	.667	.255
Q25	.241	.395	1.339E-02	4.125E-02	.626	.113
Q28	.238	3.224E-02	.168	.184	.243	.782
Q10	.198	.218	-5.30E-02	.258	7.547E-02	.722
Q31	.180	.115	.152	3.603E-02	.232	.637
Q16	.193	.268	.251	.197	.417	.433

Lack of confidence

Lack of course relevance

Low personal priority

Time constraints

Personal problems

cost

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 15 iterations.

Table 22 Education Participation Scale (Type A) factors

EPS factor	**description**
Social contact	People who score high on this factor participate because of the job of learning with others. They like being part of a group. High scorers on this factor are quite healthy – their behavior is not significantly impelled by neurosis.
Social stimulation	People who score high on this factor are lonely or bored and participate in education to meet others and to grapple with problems in their social life. High scorers on this factor are often more unhappy and neurotic than low scorers
Professional advancement	People who score high on this factor participate in education to consolidate their hold on their current job, or to position themselves to get a new job. For them, education is a way to advance professionally.
Community Service	People who score high on this factor are socially-motivated and committed to "doing good" in civil society. They are participators and joiners. For them, education helps them do good work in the community.
External expectations	People who score high on this factor participate in educational events because of the press at home or work. Many are not "volunteers for learning." Rather, they have been compelled to participate and are sometimes not happy about being forced to learn.
Cognitive interest	People who score high on this factor participate in education for its own sake. For them, learning is life. They care less about how the new learning will be used. Rather it is the inherent joy of learning that impels their participation. For them, learning for its own sake is enough.

Source: Roger Boshier – Current Research Projects (http://www.edst.educ.ubc.ca/rboshier/RBresearch.html)

Table 23 EPS(A) Scale score means, standard deviations, and reliability coefficients

Scale	Mean	Standard Deviation	Reliability – alpha	Reliability – test/retest
Communication improvement	15.65	5.84	.89	.56
Social Contact	11.97	4.90	.91	.75
Educational Preparation	17.80	4.86	.80	.61
Professional Advancement	18.52	4.47	.80	.70
Family Togetherness	9.79	4.17	.82	.74
Social Stimulation	10.25	4.07	.80	.58
Cognitive Interest	16.81	4.11	.76	.60

Source: Boshier (1991) p. 162

Figure 16 Factor Structure for the EPS – A

Factor #1: Social Welfare

#	Variable	Loading value (Morstain & Smart)	Loading Value (Norton)
38	To become more effective as a citizen	.565	.507
48	To prepare for service to the community	.696	.611
49	To gain insight into human relations	.649	.252*
55	To improve my ability to serve mankind	.726	.409*
64	To improve my ability to participate in community work	.658	.458*

* 49 loaded as .581 in social relationships
55 loaded as .525 in social relationships
64 loaded as .564 in social relationships

Factor #2: Social Relationships

#	Variable	Loading value (Morstain & Smart)	Loading Value (Norton)
43	To fulfill a need for personal associations	.711	.272**
58	To improve my social relationships	.635	.546
45	To participate in group activity	.616	.303**
51	To become acquainted with congenial people	.511	.532
47	To gain insight into myself	.443	.613
36	To share a common interest with someone else	.412	.341**

** 43 loaded as .672 in professional advancement
45 loaded as .470 in professional advancement
36 loaded as .531 in professional advancement

Factor #3: Professional Advancement

#	Variable	Loading value (Morstain & Smart)	Loading Value (Norton)
37	To secure professional advancement	.660	.681
42	To give me higher status in my job	.662	.691
44	Top keep up with competition	.553	.752
46	To increase my competence in my job	.518	.124*
53	To obtain some immediate practical benefit	.442	.266*
57	To keep up with others	.427	.435

* 46 loaded as .822 in social welfare
53 loaded as .532 in social welfare

Factor #4: Escape/Stimulation

#	Variable	Loading value (Morstain & Smart)	Loading Value (Norton)
39	To get relief from boredom	.728	.788
50	To have a few hours away from responsibilities	.588	.846
52	To provide a contrast to the rest of my life	.605	.610
54	To get a break in the routine of home or work	.685	.829

Factor #5: External Expectations

#	Variable	Loading value (Morstain & Smart)	Loading Value (Norton)
40	To carry out the recommendation of some authority	.801	
56	To fulfill requirements of a government agency	.670	.546
59	To carry out the expectation of someone with formal authority	.807	.717
60	To take part in an activity which is customary in the circle in which I move	.503	.603
61	To fulfill my professional obligation	.542	.435**
62	To comply with the suggestions of someone else	.672	.725
65	To comply with recommendations of someone else	.808	.799

** 61 loaded as .664 in social welfare

Factor #6: Cognitive Interest

#	Variable	Loading value (Morstain & Smart)	Loading Value (Norton)
35	To learn just for the sake of learning	.663	.829
41	To seek knowledge for its own sake	.615	.581
63	To satisfy an inquiring mind	.573	.358*
66	To increase my competence in my job	GR	.3.141E-02**
67	To obtain some practical benefit	GR	.279**
68	To feed my appetite for knowledge	GR	..397**

* 63 loaded as .594 in social responsibility
64 loaded as .604 in social responsibility

** 66 loaded as .789 in social welfare
67 loaded as .504 in social welfare
68 loaded as .604 in social welfare

Figure 17 Factor Structure for the Proposed EPS for elected officials

Factor #1: Role as a Public Servant (reliability alpha .8711)

#	Variable	Loading Value
46	To increase my competence in my job	.822
66	To increase my competence in my job	.789
61	To fulfill my professional obligation	.664
48	To prepare for service to the community	.611
53	To obtain some immediate practical benefit	.532
38	To become more effective as a citizen	.507
67	To obtain some practical benefit	.504

Factor #2: Personal and Professional Development (reliability alpha = .8864)

#	Variable	Loading Value
47	To gain insight into myself	.613
58	To improve my social relationships	.546
51	To become acquainted with congenial people	.532
68	To feed my appetite for knowledge	.604
63	To satisfy an inquiring mind	.594
49	To gain insight into human relations	.581
64	To improve my ability to participate in community work	.564
55	To improve my ability to serve mankind	.525

Factor #3: Professional Development and Networking (reliability alpha = .8717)

#	Variable	Loading Value
37	To secure professional advancement	.681
42	To give me higher status in my job	.691
44	Top keep up with competition	.752
57	To keep up with others	.435
45	To participate in group activity	.470
43	To fulfill a need for personal associations	.672
36	To share a common interest with someone else	.531

Factor #4: Escape/Stimulation (reliability alpha = .8348)

#	Variable	Loading Value
39	To get relief from boredom	.788
50	To have a few hours away from responsibilities	.846
52	To provide a contrast to the rest of my life	.610
54	To get a break in the routine of home or work	.829

Factor #5: External Expectations (reliability alpha = .8305)

#	Variable	Loading Value
40	To carry out the recommendation of some authority	.505
56	To fulfill requirements of a government agency	.546
59	To carry out the expectation of someone with formal authority	.717
60	To take part in an activity which is customary in the circle in which I move	.603
62	To comply with the suggestions of someone else	.725
65	To comply with recommendations of someone else	.799

Factor #6: Cognitive Interest (reliability alpha = .6437)

#	Variable	Loading Value
35	To learn just for the sake of learning	.829
41	To seek knowledge for its own sake	.581

Table 24 Component matrix of the EPS - A

Rotated Component Matrix[a]

		Component						
		1	2	3	4	5	6	7
Social Welfare	Q46	.822	.128	.124	8.372E-02	5.755E-02	.127	.139
	Q66	.789	.216	.107	-6.59E-02	.226	3.141E-02	-.136
	Q61	.664	-1.18E-02	-7.14E-03	2.885E-03	.435	6.603E-02	2.611E-02
	Q48	.611	.421	.126	-3.49E-02	.175	.105	.325
	Q53	.532	.103	.266	.317	3.116E-02	.176	-.193
	Q38	.507	.370	.259	4.104E-02	-3.02E-03	.495	.195
	Q67	.504	.186	.300	-1.64E-02	.162	.279	-.425
Social Relationships	Q47	.160	.613	.378	.183	5.694E-02	.165	3.962E-02
	Q68	.213	.604	.264	.143	4.130E-03	.397	-.287
	Q63	.215	.594	.192	.140	7.306E-02	.358	-.347
	Q49	.252	.581	.449	.217	1.565E-02	.116	.186
	Q64	.458	.564	.117	-2.79E-02	.222	.151	-1.11E-02
	Q58	.123	.546	.352	.344	.300	-.213	-9.34E-02
	Q51	-7.81E-02	.532	.271	.497	.192	6.808E-02	-7.04E-02
	Q55	.409	.525	.222	4.127E-02	.180	.184	8.445E-02
Professional Advancement	Q44	.150	.183	.752	.335	9.593E-02	1.501E-02	-9.92E-03
	Q42	.194	.266	.691	.163	.223	-1.95E-02	-1.39E-02
	Q37	.286	8.180E-02	.681	6.062E-02	.103	.284	-4.11E-02
	Q43	6.840E-02	.272	.672	.296	.132	.135	6.873E-02
	Q36	-3.57E-02	.341	.531	6.294E-02	.198	.475	-7.52E-02
	Q45	-6.82E-02	.303	.470	.456	.123	.117	.228
	Q57	.200	.406	.435	.233	.298	-.130	-.119
Escape - Stimulation	Q50	2.173E-02	-1.21E-02	.177	.846	.211	7.928E-02	2.011E-04
	Q54	7.598E-02	-3.73E-02	.217	.829	9.998E-02	.116	-7.86E-02
	Q39	1.757E-02	.229	4.061E-02	.788	-1.22E-02	-1.53E-02	.111
	Q52	9.690E-03	.377	.285	.610	6.422E-02	3.621E-02	-3.99E-02
External Expectations	Q65	.132	.142	7.237E-02	.106	.799	-3.26E-02	.137
	Q62	6.779E-02	.235	8.623E-02	.163	.725	-1.87E-02	-5.36E-03
	Q59	.269	-8.98E-02	.169	2.757E-02	.717	.181	3.451E-02
	Q60	9.662E-02	.209	.298	.177	.603	1.689E-02	-.268
	Q56	.476	5.434E-02	9.548E-02	-3.04E-02	.546	-1.83E-02	.411
Cognitive Interest	Q35	.207	6.936E-02	9.884E-02	3.957E-02	1.603E-02	.829	-1.59E-02
	Q41	.144	.468	3.606E-02	.250	3.663E-02	.581	7.866E-02
	Q40	.266	-7.15E-02	.149	.127	.505	.139	.594

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 16 iterations.

Figure 18 Cross tabulation of Age quartiles and participation in NIMS training

Crosstab

			NIMS		
			1.00	2.00	Total
NTILES of AGE	1	Count	25	22	47
		Expected Count	24.6	22.4	47.0
		% within NTILES of AGE	53.2%	46.8%	100.0%
		% within NIMS	25.3%	24.4%	24.9%
		% of Total	13.2%	11.6%	24.9%
	2	Count	23	24	47
		Expected Count	24.6	22.4	47.0
		% within NTILES of AGE	48.9%	51.1%	100.0%
		% within NIMS	23.2%	26.7%	24.9%
		% of Total	12.2%	12.7%	24.9%
	3	Count	25	23	48
		Expected Count	25.1	22.9	48.0
		% within NTILES of AGE	52.1%	47.9%	100.0%
		% within NIMS	25.3%	25.6%	25.4%
		% of Total	13.2%	12.2%	25.4%
	4	Count	26	21	47
		Expected Count	24.6	22.4	47.0
		% within NTILES of AGE	55.3%	44.7%	100.0%
		% within NIMS	26.3%	23.3%	24.9%
		% of Total	13.8%	11.1%	24.9%
Total		Count	99	90	189
		Expected Count	99.0	90.0	189.0
		% within NTILES of AGE	52.4%	47.6%	100.0%
		% within NIMS	100.0%	100.0%	100.0%
		% of Total	52.4%	47.6%	100.0%

Figure 19 Stepwise Logistic Regression for ICS

Logistic Regression

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	AGE	.022	.016	1.875	1	.171	1.022	.990	1.055
	Constant	-.894	.964	.860	1	.354	.409		

a. Variable(s) entered on step 1: AGE.

Variables not in the Equation

			Score	df	Sig.
Step 1	Variables	TIMEINPO	.068	1	.795
		URBAN	.641	1	.423
		DPSLC	.703	1	.402
		DPSLCR	.000	1	.995
		DPSTC	.025	1	.874
		DPSLPP	.572	1	.449
		DPSCOST	1.090	1	.297
		DPSPP	.671	1	.413
		EPSCI2	.021	1	.885
		EPSRPS	.421	1	.517
		EPSPPD	.562	1	.453
		EPSPAN	.267	1	.606
		EPSEE2	1.539	1	.215
		EPSES	.188	1	.665
	Overall Statistics		7.913	14	.894

Figure 20 Stepwise logistic regression for NIMS

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	DPSPP	.269	.350	.589	1	.443	1.309	.658	2.601
	DPSLPP	.205	.226	.820	1	.365	1.228	.788	1.913
	DPSLC	-.029	.373	.006	1	.938	.971	.467	2.018
	DPSCOST	.091	.238	.145	1	.703	1.095	.686	1.747
	Constant	-.925	.418	4.901	1	.027	.397		

a. Variable(s) entered on step 1: DPSPP, DPSLPP, DPSLC, DPSCOST.

Figure 21 DPSPP Logistic Regression

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	DPSPP	.442	.241	3.358	1	.067	1.556	.970	2.496
	Constant	-.666	.346	3.699	1	.054	.514		

a. Variable(s) entered on step 1: DPSPP.

Variables not in the Equation

			Score	df	Sig.
Step 1	Variables	AGE	.011	1	.918
		TIMEINPO	.377	1	.539
		URBAN	1.242	1	.265
		DPSLC	.221	1	.638
		DPSLCR	.131	1	.717
		DPSTC	.143	1	.706
		DPSLPP	.763	1	.382
		DPSCOST	.260	1	.610
		EPSCI2	.001	1	.974
		EPSRPS	.012	1	.913
		EPSPPD	.077	1	.781
		EPSPAN	.000	1	.987
		EPSEE2	1.281	1	.258
		EPSES	.153	1	.695
	Overall Statistics		6.486	14	.953

Figure 22 DPSLPP Logistic Regression

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	DPSLPP	.297	.172	2.996	1	.083	1.346	.961	1.883
	Constant	-.648	.357	3.299	1	.069	.523		

a. Variable(s) entered on step 1: DPSLPP.

Variables not in the Equation

			Score	df	Sig.
Step 1	Variables	AGE	.038	1	.845
		TIMEINPO	.411	1	.521
		URBAN	1.457	1	.227
		DPSLC	.555	1	.456
		DPSLCR	.536	1	.464
		DPSTC	.034	1	.853
		DPSCOST	.610	1	.435
		EPSCI2	.029	1	.866
		EPSRPS	.000	1	.983
		EPSPPD	.071	1	.790
		EPSPAN	.001	1	.982
		EPSEE2	.949	1	.330
		EPSES	.012	1	.913
	Overall Statistics		6.016	13	.946

Figure 23 DPSLC logistic regression

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	DPSLC	.378	.226	2.804	1	.094	1.460	.938	2.274
	Constant	-.641	.361	3.143	1	.076	.527		

a. Variable(s) entered on step 1: DPSLC.

Variables not in the Equation

			Score	df	Sig.
Step 1	Variables	AGE	.006	1	.937
		TIMEINPO	.309	1	.578
		URBAN	1.299	1	.254
		DPSLCR	.126	1	.723
		DPSTC	.036	1	.850
		DPSCOST	.377	1	.539
		EPSCI2	.020	1	.886
		EPSRPS	.018	1	.895
		EPSPPD	.139	1	.709
		EPSPAN	.015	1	.904
		EPSEE2	1.511	1	.219
		EPSES	.127	1	.722
	Overall Statistics		4.426	12	.974

Figure 24 DPS cost logisitic regression

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	DPSCOST	.278	.194	2.046	1	.153	1.320	.902	1.932
	Constant	-.495	.322	2.371	1	.124	.609		

a. Variable(s) entered on step 1: DPSCOST.

Variables not in the Equation

			Score	df	Sig.
Step 1	Variables	AGE	.124	1	.725
		TIMEINPO	.292	1	.589
		URBAN	1.350	1	.245
		DPSLCR	.000	1	.992
		DPSTC	.219	1	.640
		EPSCI2	.031	1	.860
		EPSRPS	.000	1	.983
		EPSPPD	.003	1	.959
		EPSPAN	.057	1	.811
		EPSEE2	.729	1	.393
		EPSES	.044	1	.834
	Overall Statistics		3.486	11	.983

Table 25 Open-ended responses to survey

If you have not taken and completed NIMS 700 and ICS 100, what could you tell us about why you have not finished these courses?

Very little info on the topic.
Totally unfamiliar with these courses.
My only investigation in this course was an online contact and the process seemed longer and more complicated than I had time for.
We have scheduled group courses.
Inconvenient time.
Lack of understanding about its relativity.
Just need to find the course
Has not been made available
Need more information and location choices.
Time required and practicality of using it.
Missed training
ICS 100 has not been offered to me to my knowledge.
Just put off
Not offered at a convenient time.
Organized training delay
I'm in the process of scheduling for those that need the courses.
Because they have not been made available locally.
ICS 100 hasn't been offered to us yet.
Will take NIMS 100 when available.
(ICS 100) not offered.
Have not arranged yet for instruction.
I was just elected to this position so I have no prior knowledge of these issues.
Little opportunity that fits my time.
They have not been made available locally.
ICS 100 – not offered
ICS 100 training has not been available
I do not know what the above courses pertain to or the subject matter.
Didn't know about these courses.
scheduling
No particular reason
Time, time, time
Was not aware of them
Just elected.
age
(ICS 100) was not required to take course.
My understanding is that there is no need for the ICS 100 at this time.
Going to take NIMS 700 soon!
unfamiliar

Our previous Em. Preparedness Director did not arrange training for Commissioners – We have a new director that is in the process and is collecting certificates from emergency workers to be in compliance – previously we were told Commissioners should take the training, that it was not mandatory.
We have 100 scheduled for presentation in February. No interest in 700.
Very unusual survey! Most of it didn't relate to the benefit for our community and that's what the training was about.
I would rather answer questions pertaining to a certain course or to a certain subject.
We started to fill this out. We realize these questions are asked from the wrong viewpoint. We DO attend meetings and we enjoy learning and implementing new things and ideas. Sincerely the ____ Co. Comm.
Waste of tax payer's money.
Not aware of above courses being offered.
This survey is a waste of state money!
Not enough hours in any day to accomplish everything – have done a table top exercise and will be involved in one of these again this year. Our emergency management Div. does keep us informed.
I don't know anything about them.
The course was going to be offered in KCK and then it wasn't and we were informed that other arrangements were being made for us to do the courses or courses.
Time.
ICS 100 will be offered in Feb.
Not an emergency management officer but have had briefings on subject matter
Took NIMS as a group. Have not discussed ICS 100.
Out of time
Don't know what they are.
Haven't had time to complete the training
Just started the job
Conflict in scheduling when class was offered in our area.
Not aware of their being offered or informed of this. Your survey assumes someone has taken the training.
I am not a commissioner anymore.
Not sure where they are offered or what they are.
Took classes as a dispatcher!
Not invited to my knowledge
Timing issues
Time. I do plan to take the courses on the Internet.
I am the backup communication office. I have attended and participated in pandemic and hoof and mouth tests. In the next 30 days I will take the NIMS 700 and ICS 100 computer/Internet training through Training Fema.gov
I have no idea what NIMS 700 and ICS 100 courses are about – not familiar with courses. Your letter is not very clear.
ICS 100 – new to me.
No.

In regards to Emergency Management courses – I have been involved heavily over the last 6 years. I worked as Bioterrorism coordinator at or health center, attended monthly area meetings for __ Kansas until 2006 and I continue to go to monthly meetings here that all entities – sheriff, health nurse, commission, emergency management, EMS, vets, mortician, fire and etc. attend. We have been doing this as all attend current emergency preparedness meetings for the past several years so I have kept abreast of emergency management needs and concerns
The position is 1 year, there would be no time to apply if I fitted in learning. I feel that 1 commissioner could take classes and share with the rest, thereby saving time and money. It is difficult enough serving as _____ and running a business. One job MUST suffer to make time for classes.
Was not in office in 2006.
I do not wish to participate in your survey. As an elected official for _____I am informed through staff and _____ of all emergency protocols. The city and county of ____have an excellent emergency team. I found the questions asked in this survey were not appropriate for the information you requested. I find it hard to believe that any elected official would have any of the reasons you listed prevent them from attending any course, training, etc. for the protection of their community.
Never knew they were available.
Don't know what it is. I have attended two universities and tow junior colleges. I have a degree in criminal justice. I've went to one school or another throughout my life. Page one and two of this survey are answered accurately for me. I don't have any trouble attending classes. If I have to go back to school, I will. I am close to retirement. The school I've taken has helped me with my work years no matter what I was working at.
Initial courses of this type held in our area were a total waste of time. Participants generally were better informed than instructors.
Trained response personnel, properly staffed and funded so they can do the job when and if needed, knowledge of who is responsible up the command chain and open communications with all.
Don't know
I have never been informed about them.
Not sure what these are.
Not real sure what they are?
Wife diagnosed with cancer in January 2006. Just now getting back into normal routine. Many things had to slide in 2006. Sorry for the length of time taken to return your survey!
At that time before I retired these courses were not available to me.
Not offered when I have been available. It may appear I straight-lined your questionnaire due to lack of interest. However, I have many interests and involvements. If I had an interest I pursued the instruction. None of the impediments or inducements enumerated affected my decisions. Thanks for asking.
Time constraints
Time
I have not had the opportunity

Figure 25 Pilot cover letter

October 16, 2006

Dear Pilot participant,

Thank you for agreeing to participate in an important research project that is being done by Kansas State University regarding new emergency management initiatives. The research concerns elected government officials participation and barriers to participation in emergency management training. This research is important so that officials can better understand how to prepare your jurisdiction in the event of a disaster.

Please fill out the survey and respond to the additional pilot questions at the conclusion. If there are any other suggestions you may have that will add to the success of this research, please do not hesitate to let me know.

Your insights and knowledge are crucial for the success of the research.

Thank you in advance for your time and assistance.

Sincerely,

Susan Norton
Kansas State University
Principle Researcher

Figure 26 Conference survey cover letter

November 21, 2006

Dear Commissioner,

Homeland Security, the state of Kansas, and the federal government are currently in the process of training all necessary individuals in new emergency management protocols. This survey is part of the effort to learn what motivates individuals to participate in this training and what barriers exist that hinder participation.

As a Commissioner in the state of Kansas, your knowledge of the new emergency management protocols may be pertinent during a disaster in your jurisdiction. We are contacting all Commissioners to ascertain the motivations and barriers to participate in this training.

This questionnaire is part of a doctoral dissertation through Kansas State University and your participation is critical to the success of this research. It will also help officials with their decisions on the needs of elected officials in regard to this type of training.

All information will be released in summary form only and no individual answers will be identified. Once your survey is returned, your identity will no longer be attached to your responses. This survey is voluntary, but your insights and knowledge can make the necessary changes to improve these programs. If you do not wish to participate in this survey, please fill out the demographic information and return the survey with "do not wish to participate" written at the top of the survey.

Please take a few minutes and fill out the questionnaire. If you have any questions or comments about this study, please contact the primary researcher, Susan Norton, at (316) 655-0363 or online at spnorton@cox.net.

Thank you very much for your assistance in this important research.

Sincerely,

Susan Norton
Kansas State University
Principle Researcher

Figure 27 Pre-notice post card

January 2, 2007

Dear Elected Official,

A few days from now you will be receiving a request to fill out a brief survey for an important research project that is being done by Kansas State University and the Kansas Department of Health and Environment. The research concerns elected government officials participation and barriers to participation in emergency management training. This research is important so that Kansas Emergency Management and KDHE can better understand how to prepare your jurisdiction in the event of a disaster. Your insights and knowledge are crucial for the success of the research.

Thank you in advance for your time and assistance.

Sincerely,

Susan Norton
Kansas State University
Principle Researcher

Figure 28 Survey cover letter

January 8, 2007

Dear Elected Official,

Homeland Security, the state of Kansas, and the federal government are currently in the process of training all necessary individuals in new emergency management protocols. This survey is part of the effort to learn what motivates individuals to participate in this training and what barriers exist that hinder participation.

As a County Commissioner or Mayor of a tier I or tier II city, your knowledge of the new emergency management protocols may be pertinent during a disaster in your jurisdiction. We are contacting all state Commissioners and Tier I and Tier II Mayors to ascertain the motivations and barriers to participate in this training.

This questionnaire is part of a doctoral dissertation through Kansas State University and your participation is critical to the success of this research. It will also help officials with their decisions on the needs of elected officials in regard to this type of training.

All information will be released in summary form only and no individual answers will be identified. Once your survey is returned, your identity will no longer be attached to your responses. This survey is voluntary, but your insights and knowledge can make the necessary changes to improve these programs. If you do not wish to participate in this survey, please fill out the demographic information and return the survey with "do not wish to participate" written at the top of the survey in the enclosed stamped envelope.

Please take a few minutes and fill out the questionnaire. A self-addressed, self-stamped envelope is included for your convenience. As a way of saying thanks for your time and participation, we have enclosed a small token of appreciation.

If you have any questions or comments about this study, please contact the primary researcher, Susan Norton, at (316) 655-0363 or online at spnorton@cox.net.

Thank you very much for your assistance in this important research.

Sincerely,

Susan Norton
Kansas State University
Principle Researcher

Figure 29 Corrected mailing insert

MY APOLOGIES:

On January 8, 2007 a questionnaire was mailed to you regarding your participation in training for emergency management protocols. Our cover letter stated that a self-addressed, stamped envelope was enclosed. Unfortunately, that envelope was omitted from the mailing. This packet is the corrected version. For those individuals that have returned your questionnaire please accept my thanks, your responses will be included when received. Please contact me at spnorton@cox.net or 316-655-0363 if you have questions regarding your questionnaire. Again, my apologies for any problems this may have caused.

Susan Norton

Figure 30 Reminder/thank you note

January 16, 2007

Dear Elected Official,

A few days ago you received a request to fill out a brief survey for an important research project that is being done by Kansas State University and the Kansas Department of Health and Environment on elected government officials participation and barriers to participation in emergency management training.
If you have already completed and returned the questionnaire to us, our sincere thanks. If you have not, please do so today. Your insights and knowledge are crucial for the success of this research, and can make a significant difference in the preparedness of Kansas officials in disasters.

If you did not receive a survey packet, or if it has been misplaced, please contact the principle researcher, Susan Norton, at (316) 655-0363 or online at spnorton@cox.net and a replacement will be sent to you today.

Susan Norton
Kansas State University
Principle Researcher

Figure 31 Second survey for non-respondents

January 25, 2007

Dear Elected Official,

About three weeks ago I sent a survey to you that asked about your insights on participation in emergency management training protocols for the state of Kansas. To the best of my knowledge, we have not heard from you.

Many of the other commissioners and mayors around the state have responded and their input is proving to be both essential and enlightening for this research.

As a County Commissioner or Mayor of a tier I or tier II city, your knowledge of the new emergency management protocols may be pertinent during a disaster in your jurisdiction. It is only by hearing from nearly every elected official in the sample that we can get the most precise picture of participation and the barriers that exist to participation in this training.

A few individuals have written to say that they are no longer in office**. If you were in office as a Commissioner or Tier I or Tier II Mayor in 2006, please respond**. If you were not, please note on the cover sheet of your survey and return in the enclosed stamped envelope.

All information will be released in summary form only and no individual answers will be identified. Once your survey is returned, your identity will no longer be attached to your responses. This survey is voluntary, but your insights and knowledge can make the necessary changes to improve these programs. If you do not wish to participate in this survey, please fill out the demographic information and return the survey with "do not wish to participate" written at the top of the survey in the enclosed stamped envelope.

We hope that you will take a few minutes and fill out the enclosed questionnaire. A self-addressed, self-stamped envelope is included for your convenience. If you have any questions or comments about this study, please contact the primary researcher, Susan Norton, at (316) 655-0363 or online at spnorton@cox.net.

Sincerely,

Susan Norton
Kansas State University
Principle Researcher