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Incorporating Household Pets and Service Animals: Local Government Emergency Preparedness in New Mexico

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**INCORPORATING HOUSEHOLD
PETS AND SERVICE ANIMALS:
LOCAL GOVERNMENT
EMERGENCY PREPAREDNESS IN NEW MEXICO**

by

JESSE SIEVERS

BACHELOR OF UNIVERSITY STUDIES, 2011

THESIS

Submitted in Partial Fulfillment of the
Requirements for the Degree of

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DEDICATION

I would like to dedicate this work to my lovely wife, Jennifer Sievers; our two dogs, Beatrice and Coors; and our family tortoise, Timothy Walter. Without the love and support of my family, household pets included, none of this would have been possible. Your love is the greatest gift of all.

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B.U.S., University of New Mexico, 2011

M.P.A, University of New Mexico, 2013

ABSTRACT

Public Law 109-308, the Pet Evacuation and Transportation Standards Act of 2006 (PETS Act), requires states and local government's seeking federal assistance to have emergency preparedness operational plans address the needs of individuals with household pets and service animals prior to a disaster. This thesis examines how local government emergency managers in New Mexico are preparing to address the needs of individuals with household pets and service animals prior to a disaster. This research was an exploratory case study that addressed two study goals: 1) to develop a baseline to measure preparedness activity surrounding the PETS Act implementation in New Mexico (NM) and 2) to characterize emergency manager behavior as predicted by public management theory. A survey of local government emergency managers was conducted using a 29-question, self-administered, questionnaire. 54 percent of NM (28 of 52) local government county and municipal emergency managers completed a questionnaire emailed to them. The results of the case study indicated low levels of activity in emergency planning, training, and exercising for emergency preparedness issues covered

by the PETS Act. In addition, the results of the New Mexico Case study indicate that the majority of local government emergency manager behavior reflected the normative theory of the Hamiltonian emergency manager approach. Both the low levels of preparedness and the employment of an emergency management approach that can be characterized as Hamiltonian suggest an over tasking of the response and recovery phases. It is hoped that this case study will serve as a starting point for future PETS Act and emergency preparedness researchers. Furthermore, it is hoped that this thesis provides a comparative context for practitioners at the state and local level, and illuminates policy reach for policy makers in the emergency management field.

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Introduction

It appears as if 2013 is a year that will test the disaster management capabilities of the United States. The United States started 2013 recovering from Superstorm Sandy¹, responding to severe winter storms throughout the Midwest, then conducting mitigation measures and preparing for a drought-stricken fire season in the Western U.S., and more recently has had to respond to the April 17th West Fertilizer Company explosion in Texas², occurring just two days after the Boston Marathon bombing³. Although painful, the previous decade or so of disasters caused by the proliferation of wildland fires, the September 11, 2001 (9/11) airplane hijackings and terrorist attacks, Hurricane Katrina, and the BP Oil Spill, has not only left U.S. emergency managers hardened veterans in the field of disaster management but also with a proactive approach toward the future. Particularly, preparedness efforts resulting from post 9/11 legislation and policy, such as Homeland Security Presidential Directive Five (HSPD) – 5⁴, and HSPD – 8⁵, are being implemented and coming to fruition.

¹ Super Storm was a Category 2 hurricane that occurred in the United States from Oct. 30 to Nov. 5. The storm caused damages in twenty-four states. Total federal allocations for the storm were 1.1 billion US dollars. 113 emergency shelters were opened for the storm. See FEMA (2013).

² The West Texas Fertilizer Company explosion was a hazardous materials disaster that occurred in West, Texas. The explosion resulted in a death toll of 15 people and 200 injuries. See National Public Radio (2013)

³ The Boston Marathon Bombings were the result of two bombs exploded at the finish line of the Boston Marathon. The bombings resulted in 5 total deaths and 264 injuries. See also Globe Staff (2013)

⁴ HSPD-5: Management of Domestic Incidents calls for the Secretary of the Department of Homeland security (DHS) to create a National Incident Management System (NIMS) and a National Response Plan (now the NRF). See HSPD-5 (2003)

⁵ HSPD-8 required the Secretary of DHS to develop and maintain a national domestic all-hazards preparedness goal, establish mechanisms for improved delivery of Federal preparedness assistance to State and local governments, and outlining actions to strengthen preparedness capabilities of Federal, State, and local entities. See HSPD-8 (2003)

Although preparedness efforts were acknowledged during Superstorm Sandy and the severe winter storms throughout the Midwest, the Boston Marathon bombing became the most recent example of preparedness efforts receiving high praise. In initial reports, both The Wall Street Journal and online International Association of Emergency Manager (IAEM) discussion boards have associated the minimal loss of life with increased preparedness resulting from the Boston Urban Shield exercise of 2011 (Belkin, Grossman, & Clark, 2013; IAEM Discussion Group, 2013). Boston Urban Shield was a full-scale preparedness exercise in 2011 that aimed at assessing the Metro Boston Homeland Security Region's (MBHSR) emergency preparedness and response capabilities to manage multiple terrorist attacks (Cytel Group Inc., 2011). The goals of the MBHSR exercise were to implement the National Incident Management System (NIMS) and the National Response Framework, strengthen information sharing and collaboration, and strengthen planning and community preparedness capabilities (Cytel Group Inc., 2011). Accordingly, initial media and emergency manager discussions credit the Boston Urban Shield preparedness exercise for contributing to a smooth response and saving lives in the Boston Marathon Bombing.

The Boston Urban Shield exercise was a product of legislation occurring after 9/11, largely due to the National Response Plan--now the National Response Framework (NRF)-- the implementation of National Incident Management (NIMS)⁶, and the Integrated Preparedness System (IPS)⁷. Eleven years after the creation of the Department of Homeland Security (DHS), the promulgation of HSPD-5 and HSPD-8, and after a full-scale exercise of the MBHSR, the legislation and policy efforts were put through a live

⁶ See DHS (2008) for NIMS document

⁷ See DHS (2009) for IPS document

test in Boston. The preparedness activity prior to the Boston Marathon bombings is just one example out of many emerging throughout the United States, which exemplify the payout of the United States' investment in the proactive policies in disaster management.

As suggested above, emergency preparedness is the key to the future of U.S. emergency management. Therefore, studying emergency preparedness activity can provide practical value to what Hoetmer (1991) describes as the intended function of the emergency management profession *i.e.* “to deal with extreme events that can injure or kill large numbers of people, do extensive damage to property, and disrupt community life” (as cited by McEntire, 2007, pg. 168).

This thesis explores emergency preparedness; however, rather than studying preparedness through the lens of a hazard-specific event such as terrorism or a natural disaster, the focus was on a functional area. The heart of the preparedness activities in this thesis are those incorporating the needs of individuals with household pets and service animals. Specifically, this thesis addresses the implementation of preparedness activities motivated by the Pets Evacuation and Transportation Standards Act of 2006.

Public Law 109-308, the Pets Evacuation and Transportation Standards Act of 2006 (PETS Act) amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). The PETS Act was designed to motivate State and local authorities, through respective operational plans, to “take into account the needs of individuals with household pets and service animals prior to, during, and following a major disaster or emergency” (H.R. 3858, 2006). Beyond the encouragement to comply with the Department of Homeland Security's (DHS) Integrated Planning System (IPS)

guidelines listed under the Comprehensive Preparedness Guide (CGP) 101, the direct quote cited above is the extent of the detailed instruction given to state and local government for preparing for the issues surrounding individuals with household pets and service animals. Similar to other top down federal policy, the PETS Act provides the incentive for action but puts the responsibility for determining details back on the state or local jurisdictions (Leonard & Scammon, 2007).

Implicit in all loosely-defined legislation is the question of how the law is being implemented. As will be later discussed in the literature review section regarding the PETS Act, State or local emergency management authorities have done few empirical studies regarding the implementation of the PETS Act. In order to fill a gap in the existing research surrounding PETS Act implementation, this thesis sought to answer the following *research question*:

- *How are local government emergency managers in New Mexico preparing to address the needs of individuals with household pets and service animals prior to a disaster?*

Due to the descriptive nature of this research question, a case study approach of one State's implementation efforts at the local government level serves as an initial "snapshot" on how the PETS Act is being implemented. It is hoped that this case study will serve as a starting point for future researchers, provide a comparative context for practitioners at the state and local level, and illuminate policy reach for policy makers in the emergency management field.

To support the research question, two study goals were developed for and implemented in this research. The first goal aimed at providing an evaluation of preparedness efforts by New Mexico Emergency Managers since the PETS Act of 2006 was signed into law. Achieving this study goal required a positivist approach using applied research to yield a description of the current level of preparedness. **Study Goal 1:** *To measure one state's preparedness activities to manage the needs of individuals with household pets and service animals prior to a disaster as motivated by components of the PETS ACT.*

The second study goal moves away from applied research and positive statements surrounding preparedness and employs a more theoretical design using an extension of normative political theory in public management behavior. This study goal aims at characterizing the behavior of NM Emergency Managers. To do so, it uses a more abstract public management approach first discussed in Laurence E. Lynn Jr.'s *Public Management as Art, Science, and Profession* (Lynn Jr., 1996), and later applied to emergency management in *Disaster Policy and Politics: Emergency Management and Homeland Security* by Richard Sylves (Sylves, 2008). **Study Goal 2:** *To characterize emergency manager style and behavior in the implementation of emergency preparedness policy surrounding individuals with household pets and service animals as predicted by public management theory.*

Both of these aims support expanding the knowledge boundaries in public administration and the emergency management subfield by filling in research gaps on emergency preparedness activities, emergency manager behavior, and policy implementation. It is hoped that answering the research question and achieving the study

goals will benefit emergency management professionals at all levels of government, as well as scholars, nonprofit animal welfare organizations, citizens, and of course-- household pets and service animals.

Background

Emergency preparedness in the United States. Emergency preparedness is one phase of emergency management. Thus, a brief history of emergency management is beneficial to understand the context of emergency preparedness in the United States. The history of emergency management, with which one would associate modern disaster management today, is relatively short-lived in the United States. As Keith Bea (2012, pgs. 83-115) discusses in Claire Rubin's *Emergency Management: The American Experience*, no overarching legislation or policy guided U.S. government emergency management activity prior to World War II. There were many national disasters prior to World War II, however, emergency management existed as an entirely reactive entity and was restricted to mostly response and recovery functions (Bea, 2012). Not until the emergence of the Cold War did emergency management take steps toward a significant preparedness focus, exemplified by the first disaster legislation – the 1950 Civil Defense Act (CDA) and the Disaster Relief Assistance Act of 1950. It is important to note that both the CDA and the Disaster Relief Assistance Act of 1950 emphasized and supported local and state government preparedness (Bea, 2012; Lindell, Prater, & Perry, 2007); the former supported local and state government planning efforts in response to the Soviet Union nuclear threat, the latter was intended to “foster the development of such state and local organizations and plans to cope with major disasters” (as cited by Bea, 2012, pg.

100). The primary focus on local government as paramount to emergency management efforts would continue until the terrorist attacks of 9/11 in 2001.

Until the late 1970s, emergency management and preparedness roles and responsibilities were distributed among many different agencies at all levels of government. In response to the fragmented responsibilities, the Federal Emergency Management Agency (FEMA) in 1979 and activated by Jimmy Carter through Executive Order (Lindell et al., 2007; Sylves, 2012). Richard T. Sylves (2012) describes FEMA from 1979-1993, in “Federal Emergency Management Comes of Age: 1979-2001,” as a small agency of fewer than four thousand full-time employees with a focus on mitigation. From its inception FEMA would remain an independent agency reporting directly to the President until 2001 (Sylves, 2012).

The newly formed Federal Emergency Management Agency was imbued with a notion developed by the National Governors Association (NGA): the all-hazard emergency response. In the early 1970s, the NGA proposed four functions of emergency management that would provide the framework to address any type of disaster, called the all-hazard approach. Identified as the four phases of emergency management, the NGA’s model included *mitigation, preparedness, response, and recovery*, which constitute an all-hazard approach to emergency management. In more recent work, the four phases are considered the disaster cycle, illuminating the overlapping boundaries of each phase (Waugh Jr., 2000).

Furthering the realization of an all-hazard approach was the end of the Cold War. When the Cold War ended, circa 1991 with the dissolution of the Soviet Union, so too

did FEMA's dual focus on civil defense and emergency management. Richard Sylves (2012) describes the period from 1993-2000 as the "golden years" of FEMA (pg. 116). In 1993, James Lee Witt was appointed by President William J. Clinton to lead the Federal Emergency Management Agency struggling with this change. Witt was an experienced practitioner having lead the Arkansas Office of Emergency Services under then-Governor Bill Clinton. Witt led the emergency management field with a proactive focus and placed an emphasis on the importance of local government in disasters. Lucien G. Canton credits Witt for morphing the Tip O'Neil quote "All politics is local" into "All disasters are local." (as cited by Sylves, 2008). Witt, by creating directorates corresponding to the major phases of emergency management, was able to shift emergency preparedness away from autonomous planning programs, such as the dichotomy of civil defense planning and natural hazards planning, to a comprehensive emergency preparedness system (Sylves, 2012; Sylves, 2008).

FEMA's "golden years" ended abruptly on September 11th, 2001. The 9/11 terrorist attacks provoked an unprecedented change in emergency management and preparedness policy and organizational structure. In response to 9/11, three key public policies spurred the revolution of emergency management and preparedness. First, the Homeland Security Act of 2002, or H.R. 5005, created the Department of Homeland Security, which would now house the Federal Emergency Management Agency among many others with domestic security responsibilities (H.R. 5005, 2002). Second, President George W. Bush issued HSPD-5: Management of Domestic Incidents, calling for the Secretary of DHS to create a National Incident Management System (NIMS) and a National Response Plan (now the NRF). Third, President George W. Bush issued HSPD-

8: National Preparedness, which called for the coordination and implementation of all-hazards preparedness.

The Homeland Security Act of 2002, HSPD-5, and HSPD-8 propelled emergency preparedness to a new stature. The Homeland Security Act of 2002 created the Department of Homeland Security and placed FEMA under an overriding security mission. Emergency preparedness would have to envelop a larger focus on terrorism than when housed under the cabinet level agency led by James Lee Witt. The implementation of HSPD-5 also placed higher importance on emergency preparedness. The National Incident Management System, the blanket approach that would be used to manage all U.S. domestic hazard event response, contained a preparedness component that would need to be met in order for local and state governments to be considered NIMS compliant. Under NIMS, preparedness components were built in to the implementation to support intergovernmental coordination during a response (DHS, 2008).

Of the legislation and Homeland Security Presidential Directives created as a response to 9/11 and terrorism in general, HSPD-8 provided the impetus of emergency preparedness in establishing the phase as a dominant role in U.S. disaster management. HSPD-8 would require the Secretary of DHS to develop and maintain “a national domestic all-hazards preparedness goal, establish mechanisms for improved delivery of Federal preparedness assistance to State and local governments, and outlining actions to strengthen preparedness capabilities of Federal, State, and local entities” (HSPD-8, 2003, p. 1). Furthering the preparedness movement, albeit at the cost of centralizing certain planning aspects, Annex I of HSPD-8: National Planning would require the development

and maintenance of a standardized approach to national planning (Annex 1, 2007). The result of Annex I of HSPD-8 was the creation of the Integrated Planning System (IPS). IPS established a “standard and comprehensive approach to national planning” (DHS, 2009, p. iii) and included a Comprehensive Preparedness Guide 101 (CPG 101) to encourage State and local government to comply with IPS standards (CPG 101 will be further discussed in the *PETS Act of 2006* section).

Although contributing to the vast expansion of emergency preparedness in U.S. disaster management policy, the Homeland Security Act of 2002, HSPD-5, and HSPD-8 would centralize many of the emergency management functions and increase federal government authority. In addition, emergency preparedness would shift to incorporate much of the new terrorism focus. The historic struggle with emergency management vs. civil defense would also be rejuvenated, only this time, civil defense was being replaced with terrorism.

On March 30, 2011, President Barack Obama issued Presidential Policy Directive (PPD) – 8: National Preparedness. PPD-8 replaced HSPD-8 and Annex 1 of HSPD-8 (Obama, 2011). Obama’s Presidential Policy Directive concentrates on the “whole community” and directs the federal government to address the community in developing frameworks, plans, and goals. FEMA defines the “whole community” as including individuals and families, the private sector, nonprofit sector, schools, the media, and all levels of government. In addition, the “whole community” stands for 1) “involving people in the development of the national preparedness documents” and 2) “ensuring their roles and responsibilities are reflected in the content of materials” (Federal Emergency Management Agency, 2013).

Emergency preparedness has come a long way since its relatively recent formal emergence into the U.S. legislative and public policy arena after World War II. A few key struggles are worth noting from the history depicted above. First, emergency management has gone from a field that was focused on State and local government capabilities to a centralized structure with top down decision making and policy orientation from the federal government. Illustrated by PPD-8 and by the Obama Administration's response to disasters from 2008 to present, the pendulum appears to be swinging back toward a decentralized model of emergency management placing authority and focus on State and local government capabilities. Second, FEMA has struggled to move away from addressing disaster management by response and recovery. Over the course of FEMA's history, there has been steady progress towards proactive preparedness; however, as illustrated by the proliferation of preparedness policy after the 9/11 terrorist attacks, there is still a perceived gap between the ideal and the current preparedness levels.

Pets evacuation and transportation standards act of 2006. Pets play a prominent role in human life and, by extension, in disaster situations. Pets have been included in human communities for over 12,000 years (Cattafi, 2008, p. 374). In the United States approximately 62 percent of households have pets (ASPCA, 2012).

In emergency management, the concerns for pets during disasters stem from economic considerations, public health issues, emotional well-being of humans who share bonds with pets, and the welfare of pets themselves (Leanard & Scammon, 2007). Furthermore, a number of experts discuss the importance of the human-animal bond in human choices during disasters (Hall *et al.*, 2004; Heath *et al.*, 2001; Hesterberg *et al.*,

2012; Zottarelli, 2010). The human-animal bond, or animal-human bond, is described as the nature of human attachment to their animals or the relationship of animals and humans (Hall *et al.*, 2004). The human-animal bond affects the psychological and behavioral responses of people during disaster (Hall *et al.*, 2004) and can be strong enough that people will refuse to evacuate without being accompanied by their pets (Green, 2011). In addition, individuals were reported to return to the disaster area to care for pets that were not evacuated (Heath *et al.*, 2001). As discussed at the 2006 National Animal Disaster Summit: prior to 2006, the pre-planning before hurricanes, earthquakes, tornados, wildfires, and human related disasters failed to consider the human-animal bond (Beaver *et al.*, 2006). Case studies of these historical disasters and their impacts are well documented in the body of literature surrounding pets and disasters (Arms & Zante 2010; Cataffi, 2007; Goodwin & Donaho, 2010; Hudson *et al.*, 2001; Sorensen & Sorensen, 2007).

As Leslie Irvine (2007) discusses in “Ready or Not: Evacuating an Animal Shelter during a Mock Emergency,” multiple hurricanes throughout the 1990s galvanized animal welfare organizations to respond to animals in disaster. Prior to the PETS Act of 2006, nonprofit agencies such as animal shelters and other pet organizations would provide specialized experience for animal related issues (Waugh, 2000). As hypothesized in *Emergency Management: The American Experience 1900-1910*, emergency management and preparedness are driven by focusing events or disasters (Rubin, 2012). The origin of the PETS Act was no different. In 2005, Hurricane Katrina exposed multiple planning failures regarding pets and disaster. Animal deaths were estimated to be in the thousands and the majority of rescued animals were never reunited with their owners. Aggravating

the issues relating evacuation with pets or service animals was the fact that many emergency shelters (Red Cross) and hotels do not allow animals. The estimated cost of sheltering and rescuing the animals was millions of dollars (Irvine, 2007).

In response to the Hurricane Katrina hardships, the U.S. Congress (109th) passed H.R. 3858 and on October 6th, 2006, President George W. Bush signed into law the Pets Evacuation and Transportation Standards Act of 2006. H.R. 3858, commonly referred to as the PETS Act, states that the Director of the Federal Emergency Management Agency (FEMA) is required to “ensure that state and local emergency preparedness operational plans address the needs of individuals with household pets and service animals prior to, during, and following a major disaster or emergency” (H.R. 3858, 2006). The PETS Act requires states to include household pets and service animals in their emergency plans (Irvine, 2009, pg. 39). The PETS Act of 2006 was signed into law on October 6, 2006 by President George W. Bush after it passed by a majority vote of 349 to 24 in the House and unanimously in the Senate (Leonard & Scammon, 2007). The PETS Act is summarized by the Congressional Research Service as follows:

Amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act to require the Director of the Federal Emergency Management Agency (FEMA) to ensure that state and local emergency preparedness operational plans address the needs of individuals with household pets and service animals prior to, during, and following a major disaster or emergency. Authorizes the Director to:

(1) study and develop plans that take into account the needs of individuals with pets and service animals prior to, during, and following a major disaster or emergency; and

(2) make financial contributions, on the basis of programs or projects approved by the Director, to the states and local authorities for animal emergency preparedness purposes, including the procurement, construction, leasing, or renovating of emergency shelter facilities and materials that will accommodate people with pets and service animals.

(3) Authorizes federal agencies to provide, as assistance essential to meeting threats to life and property resulting from a major disaster, rescue, care, shelter, and essential needs to individuals with household pets and service animals and to such pets and animals. (H.R. 3858, 2006)

As illustrated above, there are three major ingredients of the PETS Act. The first component is a planning element concerning emergency operational plans for state and local authorities. The second component is a funding component for emergency preparedness. The final component is a disaster response component providing for both people and animals (Edmonds & Cutter, 2008). The purpose of this study is to research implementation of the PETS Act according to the first component – the development of emergency preparedness operational plans at the state and local level, which addresses the needs of individuals with household pets and service animals prior to a major disaster or emergency.

Emergency preparedness definitional issues. Any analysis of planning for animals in disasters needs to address some basic definitional issues. Because this paper is focused on the first component of the PETS Act – the preparedness activities surrounding the development of emergency operational plans at the local level addressing the needs of individuals with household pets and service animals prior to a major disaster or emergency -- some of the definitional issues can be narrowed down due to the limits of the PETS Act itself. Nevertheless, other definitional issues still remain, including: what constitutes a major disaster; what type of animals will be planned for; and what are emergency preparedness operational plans?

What is a major disaster? As defined by the Stafford Act, major disasters are: any natural catastrophe. . . regardless of cause. . . in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance. . . to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby. (Robert T. Stafford Disaster and Emergency Relief Act, 2000)

As described, the definition is broad reaching and could be interpreted differently by any given policy maker at the state or local level. However, as the research question for this study was descriptive in nature and was meant to identify current conditions, this broad definition of disaster will allow for ample range of data.

In regard to what the Stafford Act calls “emergency preparedness operational plans,” there is no defining diction within the act that suffices to provide boundaries for

research beyond the fact that operational plans are a central component of emergency preparedness. By reviewing scholarly definitions and emergency management policies, preparedness and the constituent planning activities can better defined for research purposes. Engelke (2009) describes disasters in the United States as being managed by using the emergency management cycle as a strategy. The emergency management cycle consists of four phases: mitigation, preparedness, response, and recovery. The emergency preparedness phase consists of “determining risk, planning for an emergency, assembling supplies and human resources, and practicing the implementation of those plans by training and conducting drills” (Engelke, 2009, pg. 350). NIMS defines the national preparedness cycle as "a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response" (DHS, 2008). When evaluating preparedness, this study focused on planning, training, and exercise as they related to the PETS Act implementation.

In their book, *Introduction to Emergency Management*, Lindell, Prater, and Perry (2007) describe the components of emergency response planning. In *Emergency Planning*, Perry & Lindell (2007) posit that “planning aims to create preparedness” (pg. 8), explain that planning is a process that includes developing a plan, confirming personnel skills needed, critiquing performance, and adjusting as necessary. Lindell *et al.* (2007) explain that emergency operations plans (EOPs) are written plans that are part of the planning process. The federal government provides guidance for as well as evaluation of state and local government EOPs. Components of an EOP include the basic plan, functional annexes, hazard specific appendixes, and may or may not include

standard operating procedures and checklists. The basic plan components include: a purpose, situation and assumptions, concept of operations, organization and assignment of responsibilities, administration and logistics, plan development and maintenance, and the authorities and references. The EOP functional annexes detail on exactly how an emergency response organization will carry out a function needed for disaster demands. The hazard specific appendixes of an EOP detail deviations from standard responses for a specific hazard (Lindell *et al.*, 2007). For the purpose of this research project, emergency preparedness operational plans will be in reference to EOPs as defined by Lindell *et al.* (2007).

The last definitional issue requiring attention is the definition of which animals fall into the category of requiring planning. As Leslie Irvine (2009) discusses in *Filling the Ark: Animal Welfare in Disasters*, the choice of which animals to save during a disasters and disaster planning is not as easy as it first appears. Irvine (2009) breaks down the types of animals into four categories: companion animals, animals on factory farms, birds and marine wildlife, and animals in research facilities. *Filling the Ark: Animal Welfare in Disasters* illuminates the complexities of deciding which animals to save or plan regarding disasters (Irvine, 2009). The diction in the PETS Act does help to narrow the definition down to “household pets and service animals;” however, the PETS Act does not apply any constraints on how to define both household pets and service animals and this provides some questions. For example, are exotic animals to be considered pets and how are their owners to be considered? Similar to other federal policy, the PETS Act provides the incentive for action but puts the responsibility for determining details back on the state or local jurisdictions (Leonard & Scammon, 2007).

For the purposes of this study, companion animals or strictly animals in disaster referred to household pets and service animals without any further constrictions. Leaving the definition open-ended allowed for a better understanding of implementation and interpretation.

PETS Act implementation in the State of New Mexico. How is the PETS Act implemented? The answer to this question is much more complex and confounding than the few short paragraphs devoted to addressing the needs of individuals with household pets and service animals, as specified by the PETS Act of 2006. As indicated above, emergency management in the U.S. has become a largely top-down enterprise, and so to fully comprehend how the PETS Act is implemented, a top-down explanation of events is required. Therefore, starting with the federal government activity and ending with local government emergency managers in New Mexico will help clarify the implementation framework as it relates to this study.

The PETS Act of 2006 is an amendment to the Stafford Act, which is the primary emergency management legislation and outlines federal assistance programs. Much of federal emergency management policies, such as those described in the Stafford Act, are diffused to State and local government by means of including crosscutting requirements as a condition to receiving federal grant monies. For example, in order to receive grant money under the Homeland Security Grant Program (HSGP), which is a primary grant program that supports emergency preparedness activities and the National Preparedness Goal stemming from PPD-8, DHS stipulates that money only be given to those grantees that update their EOPs at least once every two years. Grantees must show progress towards complying with CPG 101 (DHS, 2012, pg. 16). CPG 101 is an IPS compliant

guide that includes plans for individuals with household pets and service animals (DHS, 2009). HSGP also requires the adoption of the National Incident Management System (NIMS). Under NIMS, preparedness activities such as all-hazards planning, training, and exercises are depicted (DHS, 2012, pg.15). None of the NIMS activities require addressing household pets and service animals specifically; however, NIMS provides the framework to how one would approach addressing the preparedness needs for household pets and service animals prior to a disaster.

Other funding programs that pertain to household pets and service animals fall under FEMA 9523 Policy Series: Emergency Work. Specifically, 9523.19: Eligible Costs Related to Pet Evacuations & Sheltering is a FEMA policy that explains eligible cost reimbursement to State and local governments for pet evacuation and sheltering activities following a disaster (FEMA, 2007). Under Policy 9523.19, household pets are defined as:

A domesticated animal, such as a dog, cat, bird, rabbit, rodent, or turtle that is traditionally kept in the home for pleasure rather than for commercial purposes, can travel in commercial carriers, and be housed in temporary facilities.

Household pets do not include reptiles (except turtles), amphibians, fish, insects/arachnids, farm animals (including horses), and animals kept for racing.

(FEMA, 2007)

It is important to note that Policy 9523.19 only gives a definition to describe who may receive reimbursement, but there is no crosscutting requirement to comply with certain preparedness or planning activities associated with obtaining federal monies.

At the State level, New Mexico has delegated emergency management responsibilities to the Department of Homeland Security and Emergency Management (DHSEM). Under DHSEM an entire division has been devoted to emergency preparedness. The Emergency Preparedness Division at DHSEM contains staff members, titled Local Emergency Planning Coordinators (LEPC), who are responsible for providing guidance to local government emergency managers in the areas of NIMS compliance, planning, training, and exercises. New Mexico DHSEM has produced additional guidance under the New Mexico Local Emergency Operations Plan Crosswalk Review. The State of New Mexico uses the crosswalk as a checklist to approve local government emergency operations plans.

The crosswalk uses the framework of the NRF to evaluate local EOPs. For example, the checklist categorizes plan components under Essential Support Functions or ESFs. The criteria for addressing household pets and service animals are found under ESF #6: Mass Care, Emergency Assistance, Housing, and Human Services. The criteria for addressing the PETS Act requirements are as follows:

73. Describe what plans are in place to ensure that the Federal Pet Evacuation and Transportation Act of 2006 will be implemented
74. Identify and describe the actions that will be taken for pre-disaster inspections and development of agreements for each congregate household pet facility
75. Identify how human only and pet only shelters will be coordinated
76. Describe how human shelters which allow pets will be managed
77. Describe the partnership between the jurisdiction's emergency management agency, the animal control authority, the mass care provider(s), and the owner of each proposed congregate household pet sheltering facility. (NMDHSEM, 2012, p. 7)

The criteria above allow much freedom for local governments to address the needs of individuals with household pets and service animals prior to disaster. This local government freedom of choice was a topic of interest for this research project.

Because the State of New Mexico must also abide by federal requirements and comply with the components of the PETS Act to receive federal funding, it is important to study the State's implementation activity. How the state interprets and implements the PETS Act can provide an example for local jurisdiction's to follow. In the most current New Mexico EOP (2007), reference to animals in disaster is made in two primary areas, neither of which is located in the basic plan. First, animal in disaster is mentioned in Attachment 2: Organizational Responsibilities. Attachment 2 outlines the organizations responsible for carrying out the Emergency Support Function Annexes & Appendices. Listed under the chart of Emergency Support Function Annex: Evacuations and Mass Care is Appendix A: Animals in Disaster. The chart identifies the primary agencies responsible for animals in disaster belonging to the Department of Homeland Security and Emergency Management, Department of Agriculture Livestock Board, and the Governor of New Mexico. Supporting agencies include: New Mexico Animal Control Association, Environmental Department, the Department of Game and Fish, the Department of Health, the Military Affairs Department, the National Guard, the Department of Transportation, the New Mexico Veterinary Medical Association, and volunteer agencies. Attachment 2 also outlines the responsibilities of each agency and their relationship to animals in disaster (NMDHSEM, 2007).

The second primary area that mentions animals in disaster is Appendix A to Annex 4: Animals in Disaster. Appendix A also outlines agencies and organizations and

their responsibilities surrounding animals in disaster. In addition, Appendix A details its purpose, situation, assumptions, and concept of operations. The plan specifies a management structure in which agencies and individuals will operate. The appendix outlines that the plan will be activated “only after a local jurisdiction declares an emergency or disaster, the State Emergency Operations Center (EOC) has been activated, and animal related issues have been determined to have overwhelmed local capabilities” (NMDHSEM, 2007, pg. 131).

Although the PETS Act is comprised of a few, relatively short statements that amend the Stafford Act, the implementation is much more complex. The federal government uses crosscutting requirements to motivate State and local government compliance. In addition to federal compliance, the State of New Mexico restricts local governments by using a Local Emergency Operations Plan Crosswalk Review consisting of five broad questions that need to be answered in order for the plans to be approved by NMDHSEM. Finally, federalism creates two levels of requirements for local government emergency managers in addressing the needs of individuals with household pets and service animals. Although the situation appears complex and highly constricted, both the federal government and State of New Mexico’s requirements allow for a broad arrangement of local government implementation of the PETS Act requirements.

Literature Review

Incorporating Household Pets and Service Animals

As depicted by the story of Noah’s Ark, the topic of animals in disaster is not new to the world (Irvine, 2009). Disaster planning, however, has become increasingly

important in the United States over the last decade (Bayne, 2010). Planning for animals in disaster received congressional attention in 2006 and on October 6th, 2006, President George W. Bush signed into law H.R. 3858 (109th): Pets Evacuation and Transportation Standards Act of 2006. H.R. 3858, commonly referred to as the PETS Act, states that the Director of the FEMA is required to “ensure that state and local emergency preparedness operational plans address the needs of individuals with household pets and service animals prior to, during, and following a major disaster or emergency” (H.R. 3858, 2006). There has been substantial research and literature on the need for planning for animals in disaster prior to the PETS Act of 2006 (Beaver, Gros, Bailey, & Lovern, 2006; Ferris & Vivrette, 2001; Hall, NG, Ursano, Holloway, Fullerton, & Casper, 2004; Heath, Kass, Beck, & Glickman, 2001; Heath, Voeks, & Glickman; 2001; Hudson, Berschneider) and the continued need to plan for animals in disaster after the PETS Act was signed into law (Bayne, 2010; Goodwin & Donaho, 2010; Hesterberg, Huertas, & Appleby, 2012; Irvine, 2007; Madigan & Dacre, 2009; Zottarelli, 2010); however, there are few studies available on the implementation of the PETS Act (Decker, Lord, Walker, & Wittum, 2010; Edmonds & Cutter, 2012). The purpose of this study is to research how local government emergency managers in New Mexico are fulfilling the requirements of the PETS Act in their preparedness activities addressing the needs of individuals with companion and service animals prior to disaster.

PETS Act criticisms. Many scholars have illustrated the need for planning for companion animals in disaster (Heath et al., 2001; Heath, Voeks, & Glickman; 2001; Hudson et al., 2001; Hall et al., 2004; Beaver et al., 2006) leading up to the PETS Act; furthermore, the retrospective need for planning and continued need for planning has

been reiterated post PETS Act (Irvine, 2007; Irvine, 2009; Goodwin & Donaho, 2010; Hesterberg, Huertas, & Appleby, 2012; Madigan & Dacre, 2009; Bayne, 2010).

Although the majority of literature points towards the need for planning for companion animals in disaster, there are still criticisms regarding the amendment to the Stafford Act. The criticisms, although in the minority of literature, should continue to hold as legitimate areas of discussion.

Although in support of including pets in disaster preparedness, the Leonard and Scammon (2007) article “No Pet Left Behind: Accommodating Pets in Emergency Planning” poses critical questions of the PETS Act in several different categories. First, the question of what the PETS Act indicates about society’s value of pets vs. people. Leonard and Scammon illuminate this point stating that planning policies convey who and what are should receive protection. The authors go on to compare the implications of value by adding that there is no emergency management legislation specifically directed at the accommodation of the special needs human population emergency planning requirements. In addition, Leonard and Scammon (2007) assert that some people believe that the PETS Act will distract emergency management efforts from saving human life. Another category of questioning of the PETS Act is the research behind the roles animals play in human life and the implications on the PETS Act Implementation. In earlier history, animals had been viewed as property of human beings; however, modern research has suggested the role of animals has changed to that of companions or even family members. A third criticism posed by Leonard and Scammon in regards to the PETS Act implementation is that of the status of pets. The authors discuss the hypothetical of if the PETS Act were interpreted as pets having their own rights beyond

possession and deserving protection. If pets did have their own rights, the idea posited by Heath, Voeks, and Glickman (2001) that there could be legal ramifications for abandoning or abetting the abandonment of pets in an emergency would need to be reconsidered in PETS Act interpretation and implementation (Leonard and Scammon, 2007). As mentioned earlier, Leonard and Scammon (2007) are not in disagreement of the PETS Act, but rather pose several critical questions worth thinking about when planning for individuals with household pets and service animals.

Research gaps. Beyond scattered case studies and a majority of research essays, only a small number of studies have been dedicated to looking at the PETS Act (Edmonds & Cutter, 2012; Decker, Lord, Walker, & Wittum, 2010). Edmonds & Cutter (2012), in their study “Planning for Pet Evacuations during Disasters,” provide a pet estimation model that determines the number and location of pet-owning households. Furthermore, the study details the locations of emergency animal shelters for evacuation purposes. The study was conducted in response to the recent PETS Act. The authors stated that “there is little guidance on how to conduct such planning efforts” (Edmonds & Cutter, 2012, pg. 1). The authors hoped that the study would provide a starting point for PETS Act planning efforts in the future. Also studying the aftermath of the PETS Act, Decker, et al. (2010) conducted a study focusing on animal shelters in Ohio and the role in disaster response planning in their communities. The study used a survey to ask questions regarding disaster response planning and preparedness. Decker et al. found that animal shelters were underutilized and underprepared in the event of a disaster (2010).

The field of emergency management with the inclusion of planning for household pets and service animals is relatively new. What is apparent in reviewing the literature

regarding animals in disaster is that the field does not contain an abundant amount of topic specific research. Minimal studies have been dedicated to the implementation or implications of the PETS Act of 2006. No studies were found to have researched the PETS Act implementation within State or local government entities. To this end, near future research opportunities present themselves by studying government preparedness activities in the form of asking descriptive research questions, using qualitative and quantitative research methods, using a case study approach, seeking descriptive statistics to determine PETS Act implementation.

Public Management Theory and the Emergency Manager

The emergency management profession. Paralleling the history of the emergency management in the U.S., the job of emergency manager has had a relatively recent emergence on the public service scene. William L. Waugh Jr. (2000) defines the emergency manager position in his book *Living With Hazards Dealing With Disasters*, stating: “emergency management is the quintessential government role. . . for which communities were formed and governments constituted in the first place—to provide support and assistance when the resources of individuals and families are overwhelmed” (pg. 3). Although this definition applies to how one would view the contemporary emergency manager, this description may have not suited the proceeding civil defense planner or retired military officer acting as a community liaison for Cold War planning purposes.

Just as emergency management has pulled away from civil defense planning, so too has the roles of emergency managers. Lindell et al. (2007) define the emergency manager’s role as preventing or reducing hazard, disaster, or emergency damages (pg. 7).

This definition points to the all-hazards revolution that started in the 1970s and continues to define the strategy of approaching disaster management in the United States. Implicit in the all-hazards approach is a broad arrangement of competencies an emergency manager must have.

Because the technical complexity of disasters is increasing, along with cost and the necessity for intergovernmental relations, the need for more professional emergency managers at the local level is on the rise (Waugh, 2000). In its evolution, emergency managers have evolved from the command-and-control style of early military influence and more towards a profession that requires skills such as collaboration and cooperation (Waugh, 2000). Sylves (2008) defines a profession, in *Disaster Policy and Politics*, as requiring knowledge, skills, and decision making abilities that are not easily understood by others. In addition, a profession is regulated by a governing body that is responsible for certifications and licensing (Sylves, 2008).

In the U.S., there are multiple organizations that certify emergency managers at the local level. First, individual states have certifications programs such as the New Mexico Emergency Management Association's Certified Emergency Manager program. FEMA also has a few certificate series available for emergency managers. The most robust professional body, however, is the International Association of Emergency Management (IAEM). IAEM is responsible for overseeing the most arduous level of certification available to U.S. local government emergency managers—the Certified Emergency Manager. These certification programs are quickly becoming ubiquitous in required and preferred qualifications in the emergency manager hiring process.

According to the definition of a profession, the apparent trend in the U.S. is toward a professionalized emergency management field requiring skills in cooperation and collaboration. Waugh (2000) also states that as the field becomes more professionalized, emergency management has had overlap with other public professions. This overlap means that some of theories from other academic disciplines can be adopted to explain emergency manager behavior. Particularly, public administration and the subfield of public management provide a good starting point.

Emergency preparedness and public management theory. Research on disasters is diverse. Disaster research exists in some form or another in almost every discipline. The broader the definition of disaster, the more academic fields included in spectrum of disaster research. The majority of early research came from technical fields seeking answers to technical problems such as natural hazards science and civil engineering issues or building safety. As the field of disaster research has expanded, current academic literature reflects both technical fields and the emergent social science fields (Waugh, 2000). However, because the social sciences are a more recent addition to the study of disasters, the lists of available emergency management theory are limited.

After reviewing emergency management and public administration literature, an age-old argument from America's founding fathers was found to apply to the research goals. In *Disaster Policy and Politics*, and specifically the chapter "Disaster Management and Theories of Public Management," Richard Sylves (2008) discusses the relevant theories applicable to emergency management. Among the theories deemed applicable, Sylves extracts two normative political theories, from Laurence E. Lynn Jr.'s

(1996) *Public Management as Art, Science, and Profession*—Jeffersonian and Hamiltonian public manager ideological approaches.

Laurence E. Lynn Jr. used Jeffersonian and Hamiltonian concepts, approaches, and stereotypes to illustrate public management in the domain of public administration and public policy scholarship. Throughout *Public Management as Art, Science, and Profession*, Lynn continually refers to the normative political theories as they relate to public management. The Jeffersonian stereotype places democratic participation and deliberation as paramount to the ideal public manager. The opposing ideology, the Hamiltonian stereotype, holds decisions and actions by empowered executive administrators as paramount. Lynn states that the tension between the two stereotypes is said to be unresolved; however, the choice of which stereotype or style a public manager is acting under can become important for research and practice (Lynn, 1996).

Richard Sylves (2008) takes the notion of Jeffersonian and Hamiltonian approaches from the domain of public management and constricts it further to the public management role of the emergency manager. Sylves depicts emergency managers using the Jeffersonian approach as generalists: skilled communicators who have the ability to understand public and public sway. Jeffersonian emergency managers would hold themselves accountable to only the public and elected overseers. In addition, Sylves advances the idea that Jeffersonian emergency managers would seek strong community participation in the preparedness and planning processes.

Alternatively, emergency managers using the Hamiltonian approach expect to be judged by executives in the production of desired results. Hamiltonian emergency

managers are well educated, professional, and highly specialized far beyond that of the normal citizen. Hamiltonian emergency managers can operate and make decisions independently based off of their expertise. Sylves is also in agreement with Lynn Jr., suggesting that emergency managers cannot easily adopt both approaches. (Sylves, 2008, pg. 28-30).

As emergency management becomes an ever more complex field requiring special skills and knowledge, such as expertise in functional areas like the PETS Act, but at the same time advancing comprehensive and integrated approaches involving the collaboration of all stakeholders, the tension between Hamiltonian and Jeffersonian emergency management approaches are high. No studies have specifically addressed the Jeffersonian and Hamiltonian normative theories during any phase of the emergency management cycle. Therefore, opportunity presents itself to characterize, under the functional area of preparedness, Jeffersonian and Hamiltonian emergency manager styles.

Methodology

The Case Study Approach

This thesis is an exploratory study of activities surrounding emergency preparedness and implementation of the Pet Evacuation and Transportation Standards Act of 2006. The purpose of this study was to explore, in depth, the preparedness activities surrounding the local government PETS Act implementation in the State of New Mexico. The research is descriptive in nature and, therefore attempts to capture a baseline snapshot of a particular program (Johnson, 2010). Because of the nature of the research question, the study goals, researcher location and data access, financial limitations, and

time restrictions, a case study approach using surveys to collect quantitative descriptive data provided the best means to achieve the study goals.

Ideally, to study the preparedness activities surrounding the PETS Act, a representative sample of emergency managers throughout the United States would be selected for measuring knowledge, attitudes, and behaviors. Identifying a national list of the local government emergency managers would be time consuming, require access to contact information for all states, and difficult to maintain for any duration of time. In addition, each state emergency management agency would have to be examined in order to understand their policies and rules regarding preparedness activities surrounding household pets and service animals. Because of the lack of resources to undertake such an endeavor, a smaller, more focused approach was considered: a case study of New Mexico local government emergency managers. Using a preparedness framework and applying it to all designated local government emergency managers made the study accessible, economical, and limited to one state's emergency preparedness policies as they contribute to local government behaviors.

Furthermore, the nature of both study goals aligns with the domain of a case study approach. The first study goal seeks to explore a question that is implicit in the loosely defined requirements of the PETS Act: how are local governments interpreting the PETS Act requirements and preparing to manage the needs of individuals with service animals prior to a disaster? In pursuing the first study goal, this study used a positivist approach to clarify the existing conditions at the local government level. As Johnson (2010) describes in *Research Methods for Public Administrators*, descriptive questions ask the question of "how," but not "how well" (pg. 37-38) a program works. As there are no

other academic studies that focus on local government preparedness surrounding the implementation of the PETS Act, no comparisons could be drawn from other evaluations. Therefore, the study goals for this thesis did not aim to evaluate the preparedness activities in New Mexico based on developing or using a preparedness evaluation model and pursuing the question “how well” are local governments planning, but rather to pursue the simple “how” are NM local government emergency managers preparing for individuals with household pets and service animals prior to a disaster as galvanized by the PETS Act. To this end, this study goal was not an evaluation of preparedness in NM, but rather a description or snapshot to provide a point of comparison, or baseline, for future research or for practitioner comparison surrounding PETS Act implementation.

The second study goal sets out to characterize New Mexico local government emergency managers based on the jurisdiction’s preparedness activities. The study goal explores the two normative political theories first brought to the field of public affairs, specifically in the public management subfield, by Laurence E. Lynn Jr. (1996), but later transplanted into emergency management by Richard Sylves (2009). The theories of Jeffersonian and Hamiltonian emergency manager approaches are explored using a preparedness activity, the PETS Act implementation. The aim of this study goal was not to test the two normative theories, but rather to elucidate the implications of the two theories using the example of New Mexico local government emergency preparedness activities in the PETS Act implementation. Similar to study goal one, there have been no studies exploring Hamiltonian and Jeffersonian emergency manager approaches. Correspondingly, this study goal sought to provide a baseline for future research as well as further explore the two theories by using palpable preparedness activities surrounding

the implementation of the PETS Act. The study goal assumed that the theories are in fact proven in order to explicate the bearing the theories pose on emergency management and preparedness programs.

Both study goals support the research question: How are local government emergency managers in New Mexico preparing to address the needs of individuals with household pets and service animals prior to a disaster? As described above, the research question is descriptive, study goal one is descriptive, and study goal two seeks to explore normative theoretical implications. Johnson (2010) states that “case studies are used to answer descriptive and normative questions. . .” (pg. 77). Having taken into consideration the nature of the research question, the study goals, researcher location and access to cases, financial limitations, and time restrictions, a case study using quantitative descriptive data provided the best means to seek answers to the question posed.

Survey and Data Collection

Gerber and Robinson (2009) address assessing emergency preparedness in their article, “Local Government Performance and the Challenges of Regional Preparedness for Disasters” (pgs. 348-351). Gerber and Robinson advance three approaches to preparedness assessment. The first approach is an emergency manager self-assessment of broad preparedness levels in his or her jurisdiction. The drawback to this approach is the subjectivity in self-evaluation. This assessment is a high level assessment looking at all-hazards preparedness. The second approach is a document analysis focusing on plans such as local government EOPs. The drawbacks of this approach are the time and economic costs. The third approach is narrowing down the preparedness evaluation to specific preparatory behaviors. The downside of this approach is the subjectivity if using

surveys and the difficulty generalizing the evaluation back to overall preparedness of an emergency management organization. It is suggested that the best way to alleviate potential biasness and inaccurate data reporting is to use a combinations of approaches (Gerber & Robinson, 2009, pgs. 348-351).

Due to time constraints and costs, this thesis incorporated the approaches of studying specific preparedness behaviors and measuring general preparedness. Measuring PETS Act preparedness activities in New Mexico obviously employs the specific behaviors approach. However, when looking at the normative theories of Hamiltonian and Jeffersonian emergency manager styles, a more generalized preparedness evaluation approach is used. For both preparedness assessment approaches, a survey was used to collect baseline, descriptive data to assess preparedness and to characterize preparedness behavior.

The majority of social science data collection methods are surveys or interviews (O'leary, 2010). This study followed similar data collection methods. However, because there were 52 identified emergency managers, conducting in-person interviews proved infeasible due to time considerations and travel demands in the rural state of New Mexico.

A survey was conducted using a 29 question, Institutional Research Board approved, self-administered survey.⁸ The web-based survey was delivered by email using SurveyMonkey.com. The survey consisted of a series of closed-response categories consisting of multiple-choice, Likert scale, and ranking questions. The survey

⁸ See Appendix for complete survey

was sent out on March 28th and closed on April 25th. Reminder emails sent from the SurveyMonkey host were sent out on April 2nd, April 8th, and April 12th. In addition, the New Mexico Emergency Management Association sent an email on April 8th to all New Mexico local government emergency managers endorsing the survey and providing a link to the online questionnaire. Data from the survey was collected through the SurveyMonkey.com software. The data was later downloaded from the Web site and converted to a Microsoft Excel format for analysis.

Survey Participants

The unit of analysis for this study was local government emergency managers in New Mexico. Local emergency managers hold the majority of responsibility and resources for disaster response (Waugh, 2000). Local governments consist of counties and municipalities where policy is transformed into emergency management practice. Because local governments in New Mexico operate under the same state policy and guidelines, isolating this study to one state's local government emergency managers simplified the data and provides a better snap shot. However, due to the number of units being analyzed within the state (52 emergency managers) a closed-response survey allowed for the researcher to apply a framework and gather data from units in a timely, cost effective manner.

Rather than a sample, a census of local government emergency managers in New Mexico was surveyed due to the limited number of potential respondents (52 designated emergency managers). An initial list consisting of all designated emergency managers for county and municipal government was allocated from the New Mexico Department of Homeland Security and Emergency Management; however, follow up phone calls were

also made to update and verify the contact list. In total, 52 designated local government emergency managers were verified: 34 county emergency managers and 18 municipal emergency managers.

Study Constructs and Measurement

This research used, single variable, descriptive statistics concerning emergency preparedness activities in New Mexico. 52 individual cases were looked at in the representation of the case study of New Mexico. A framework was applied to the survey questions and thematic areas were developed to isolate preparedness activities in the responses. This framework was needed to focus the research and produce meaningful data.

First, questions were categorized by demographics, knowledge, attitudes, and behaviors of the respondents. Demographic questions included population of jurisdiction, education levels of emergency managers, previous experience, etc. The knowledge, attitude, and behaviors were aimed at getting a deeper sense of the preparedness activities surrounding individuals with household pets and service animals. Second, knowledge, attitudes, and behaviors each were focused by thematic areas. These thematic areas include knowledge, attitudes, and behaviors with respect to PETS Act preparedness activities as well as with respect to knowledge, attitudes, and behaviors concerning Hamiltonian and Jeffersonian emergency manager approaches and. Further breakdown of each thematic area is illustrated below.

Emergency preparedness. As discussed in the literature review, the NRF is a guide to conducting an all-hazards approach to emergency management (NIMS, 2008).

Under the all-hazards approach, preparedness is the phase that has gathered considerable momentum in the last decade and is the focus of this research project. NIMS lists the following as preparedness elements: preparedness planning, procedures and protocols, training and exercises, personal qualifications and certifications, and equipment certifications (NIMS, 2008). For the purposes of this study, and in accordance with earlier definitions of emergency operations plans, procedures and protocols were grouped under preparedness planning knowledge, attitudes, and behaviors in the questionnaire. In addition, personal qualifications and certifications were grouped under the training area of study in the questionnaire. Equipment certifications were not addressed in this study. Therefore, under the emergency preparedness thematic area or construct in the questionnaire, the following three areas were used as the key elements for respondent reports of knowledge, attitudes, and behaviors: emergency plans, training, and exercises.

Jeffersonian and Hamiltonian emergency manager approaches. The second thematic area or key construct this thesis focused on was the characterization of respondent behavior using the normative theories hypothesized for emergency manager behavior: the Jeffersonian and Hamiltonian emergency management approaches. As stated in the literature review, the distinguishing characteristics that separate Jeffersonian and Hamiltonian emergency manager were civic engagement during preparedness activities, education levels, and attitudes surrounding performance evaluation. The first component of the questionnaire that asked respondents about demographics, knowledge, attitudes towards performance evaluation, and behaviors concerning citizen involvement was applied to this thematic area to characterize Jeffersonian and Hamiltonian emergency manager behavior in the respondents.

Analytical Technique

Using Excel, Univariate descriptive statistics were produced for respondent selections to provide a baseline for preparedness activities in New Mexico. Descriptive statistics are the statistics used to describe the basic features of a data set with a goal of presenting descriptions in a comprehensible form (Zina O’leary, 2010). For this thesis, the use of descriptive statistics was deployed due to the nature of the research question, the small universe of the case study, and the newness of the topic of study. Because there is little research for comparing local government emergency preparedness efforts surrounding the PETS Act, the objective of this research was to provide insight into a particular state’s activities and provide a baseline for future research and practitioner activities. Therefore, analyzing data using descriptive statistics provides for an unassuming assessment of the preparedness activities in one state to position further research. Also, given the small number of respondents, relational or inferential statistics would have suffered from significant defects.

Response Rate

The web-based survey was sent out as a census and included all 52 designated local government emergency managers in New Mexico. Only fully completed surveys were submitted to data analysis. Partially completed surveys were filtered out by the SurveyMonkey software. Ultimately, 28 surveys were received for a response rate of approximately 54% (28/52). Of the 28 participants responding to the survey, all major municipalities (Albuquerque, Santa Fe, and Las Cruces) responded. In addition, the county and municipalities that participated had populations ranging from 4,500 to 550,000. This range of population along with the geographic spread of participants

allowed for a representation of the state's rural and urban communities. It is important to note, however, that this research uses a case study approach and that the population of respondents in this study may not represent the entire population of the local government emergency managers in the United States. Generalizability and internal validity will be discussed further in later sections of this thesis.

Results

PETS Act Emergency Preparedness

Demographics and general PETS ACT emergency preparedness statistics.

The population range for participant jurisdictions was 4,500 to 555,000. The majority (85.7%) of participant emergency management organizations consisted of 2 or less employees. Most (61%) of the participants reported that their emergency management office was a stand-alone agency reporting to an elected executive or governing body. Additionally, 25% of emergency management offices were organizationally located within the fire department and 14.3% were located within the police department. Emergency Operations Center (EOC) activations within the last ten years were prominently due to hazards such as wildland fires (50%), winter storms (35.7%), and floods (28.6%).

In addition, survey questions regarding attitudes showed neither strong satisfaction nor dissatisfaction with the jurisdiction's preparedness activities. The majority of respondents felt mostly neutral in their feeling toward levels of training, how they addressed individuals with household pets and service animals in their EOPs, and the level of exercises their jurisdiction was at regarding PETS Act components. Most

emergency managers (82.1% or 23/28) felt that preparedness activities pertaining to the management of individuals with pets or service animals was important.

Planning. Table 1 reports the descriptive statistics for survey data correlating with emergency planning knowledge, attitudes, and behaviors. The majority of emergency managers (67.9 %) report having some or all of the NMDHSEM requirements met. However, the approximate third of emergency managers remaining (32.2% or 9/28 emergency managers) were not aware of the NMDHSEM requirements or admitted to not satisfying the requirements. Similarly, when describing where the PETS Act components were located in the jurisdictions EOP, ten emergency managers (37%) reported not including individuals with household pets in their plans. The two remaining groups of emergency managers were split between incorporating the PETS act components as a functional annex (22.2 %) and incrementally throughout their plans (33.3%).

When asked what the participants felt were considered household pets or service animals for emergency planning purposes, responses varied. Cats(67.9 %) and Dogs(71.4%) ranked the highest among the options. The rest of the animals listed as an option choice all ranked below the 50% mark or were chosen by less than 15/28 emergency managers. The bottom ranking group of animals was livestock at 21.4% or 6/28 participants. Similar to the number of respondents reporting lack of awareness and not including animals in their EOP's, 35.7% of emergency managers admitted to not knowing what was considered a household pet or service animal.

Furthering the uncertainty of the PETS act implications, 50% of emergency managers reported not knowing the consequences for not complying with the PETS Act

requirements. However, 30.8% of the survey participants felt there were no enforceable consequences while 23.1% felt their jurisdiction could be held liable for civil lawsuits.

No emergency manager felt that they could be indicted on criminal charges from the state.

Table 1: Emergency Planning

What level of NM DHSEM Crosswalk Local Emergency Operations Plan Crosswalk requirements regarding planning for individuals with household pets or service animals have you satisfied: (Check all that apply)		
Answer Options	Response Percent	Response Count
All NM DHSEM requirements pertaining to household pets or service animals have been satisfied	17.9%	5
Some of the NM DHSEM requirements have been satisfied	50.0%	14
None of the NM DHSEM requirements have been satisfied	3.6%	1
I am unaware of the NM DHSEM requirements	28.6%	8
In your Emergency Operations Plan, where do you address individuals with household pets or service animals? (Check all that apply)		
As a Functional Annex	22.2%	6
As a Hazard-Specific Appendix	7.4%	2
Incrementally Throughout My plan	33.3%	9
I Did Not Include Individuals with Household Pets or Service Animals as a Part of My EOP	37.0%	10
For emergency planning purposes, what animals are considered household pets or service animals? (Check all that apply)		
Cats	67.9%	19
Rabbits	50.0%	14
Dogs	71.4%	20
Livestock (Horses, Cattle, Sheep, etc.)	21.4%	6
Rodents	39.3%	11
Reptiles	35.7%	10
Fish	32.1%	9
Birds	46.4%	13
I am uncertain of what defines household pets or service animals	35.7%	10
The consequences for noncompliance with the PETS Act requirements for planning for individuals with household pets and service animals are as follows: (Check all that apply)		
My jurisdiction will not qualify for Homeland Security Grants Program funding	11.5%	3
I can be held personally liable for civil law suits	3.8%	1
My jurisdiction will not qualify for Department of Transportation Grants	3.8%	1
My jurisdiction can be held liable for civil law suits	23.1%	6
My jurisdiction will not qualify for the Fire Management Assistance Grant Program (FMAG) funding	3.8%	1
I can be indicted on criminal charges from the State of New Mexico	0.0%	0

There are no enforceable consequences	30.8%	8
Do not know	50.0%	13

Training. Table 2 shows the descriptive statistics of emergency manager trainings and certifications as they relate to addressing the needs of individuals with household pets or service animals. When addressing familiarity with foundational documents and fundamental preparedness policies, between 50 and 60% of emergency managers felt they were very familiar with CPG 101, the Stafford Act, and the NM DHSEM Crosswalk. Only a fourth of all emergency managers reported that they were very familiar with the PETS Act of 2006. However, 17.5% or 5/32 emergency managers admitted to not reading any of these foundational documents and policies.

Direct trainings pertaining to animals in disaster showed minimal completion: less than 8/32 emergency managers had taken any given training course. However, the free FEMA trainings associated with general emergency preparedness and response, such as FEMA IS-100, 200, 700, 800 (completed by 92.9% of participants) and the FEMA Professional Development Series (completed by 53.6% of participants), were taken by the majority of emergency manager participants. Obtaining the Certified Emergency Manager from the professional governing bodies in emergency management was relatively low (25% for NMEMA and 0% for IAEM).

Table 2: Emergency Manager Training

Of the following list, which documents would you say you are very familiar with? (check any that apply)		
Answer Options	Response Percent	Response Count
FEMA Comprehensive Preparedness Guide 101 (CPG 101) requirements for planning for individuals with pets or service animals prior to a disaster	53.6%	15

Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288)	53.6%	15
NM DHSEM Local Emergency Operations Plan Crosswalk requirements for planning for individuals with pets or service animals prior to a disaster	60.7%	17
Pet Evacuation and Transportation Standards Act of 2006	25.0%	7
I have not read any of these documents	17.9%	5
What trainings have you completed on animals in disaster? (Check all that apply)		
FEMA IS 10.a Animals in Disasters: Awareness and Preparedness	30.8%	8
FEMA IS 11.a Animals in Disasters: Community Planning	23.1%	6
FEMA IS 111.a Livestock in Disasters	11.5%	3
FEMA IS 811 ESF #11 Agriculture and Natural Resources Annex	19.2%	5
What emergency management certifications and qualification do you hold? (Check all that apply)		
International Association of Emergency Management - Certified Emergency Manager	0.0%	0
New Mexico Emergency Management Association - Certified Emergency Manager	25.0%	7
Federal Emergency Management Professional Development Series	53.6%	15
FEMA IS 100, 200, 700, 800	92.9%	26

Exercises. Table 3 illustrates the descriptive statistics surrounding emergency manager exercises concerning individuals with household pets or service animals. NM emergency preparedness exercises were minimal throughout the state. 82.1% or 23/28 emergency managers reported not having exercised plans that incorporated individuals with household pets or service animals. Additionally, only 5/28 emergency managers reported addressing any level of exercises, but had not surpassed a tabletop exercise.

Table 3: Emergency Exercise Results

Which level of exercise have you conducted concerning individuals with pets or service animals? (Check all that apply)		
Answer Options	Response Percent	Response Count
Seminar - informal orientation or discussion	7.1%	2
Workshop - designed to build draft plan or policy	7.1%	2
Tabletop Exercise - key personnel discussing simulated scenarios in an informal setting	3.6%	1
Games - simulation of operations in a competitive environment	0.0%	0
Drill - coordinated activity employed to test a single specific	0.0%	0

operation or function within a single entity or department		
Functional Exercise - examines the coordination, command, and control between various multi-agency coordination centers. Does not involve "boots on the ground" with first responders.	0.0%	0
Full-Scale Exercise - multi-agency, multi-jurisdictional, multi-discipline exercise involving "boots one the ground response.	0.0%	0
None of the Above - Have not exercised plans managing individuals with household pets or service animals	82.1%	23

Hamiltonian and Jeffersonian Emergency Manager Approaches

Table 4 shows the descriptive statistics associated with the two normative theories: Hamiltonian and Jeffersonian emergency manager approaches. Education levels for emergency managers ranged from high school educated to completion of a master’s degree. Approximately 54% of all emergency managers had completed a degree beyond high school.

When questioned regarding the ideal emergency planning team, the majority (64.3% or 18/28 participants) reported that a large committee of government, private sector, and engaged citizens would be ideal. One fourth of all participants felt that a small committee of only local government officials would ideal. Only one emergency manager reported they felt writing an EOP alone was ideal. No participants reported that a private consultant was the ideal planning team. Contrarily, when asked how the EOP was actually created, 46.4% of emergency managers used a private consultant to write the EOP. Only 10.3% of participants reported that were able involve a large committee of government, private sector, and engaged citizens that were idealized above. The remaining 9 emergency managers that participated in the study wrote the EOP with only government managers (21.4%) or with little outside assistance (3%).

Table 4: Hamiltonian and Jeffersonian Emergency Manager Approaches

What is your current level of education?		
Answer Options	Response Percent	Response Count
High School	14.3%	4
Some College	28.6%	8
Associate's Degree	10.7%	3
Bachelor's Degree	28.6%	8
Master's Degree	14.3%	4
Ph.D. or equivalent	0.0%	0
In the process of writing an Emergency Operations plan for my jurisdiction, my ideal emergency planning team would consist of:		
Myself and my own expertise	3.6%	1
A small committee (5 or less) of local government officials(fire, police, public works, EMS, etc.)	25.0%	7
A large committee (5 or more) of mostly non-government stakeholders ranging from business leaders to engaged citizens	7.1%	2
A large committee (5 or more) consisting of local government officials, business leaders, and other engaged citizens	64.3%	18
Private business emergency management consultants with my interaction and oversight	0.0%	0
How did your department create your Emergency Operations Plan(EOP).		
Wrote EOP individually with little outside assistance	10.7%	3
Wrote EOP as a joint effort with other local government leaders (fire,police, EMS, etc.)	21.4%	6
Wrote EOP as a joint effort with the assistance of constituent citizens, business, nonprofit, and government representatives	10.7%	3
Wrote EOP as a joint effort with mostly non-government citizen, business, and nonprofit representatives	0.0%	0
Contracted the EOP writing to a private consultant business	46.4%	13
Delegated the EOP writing to a committee or separate department	0.0%	0
Other	10.7%	3

Figure 1 illustrates a ranking question surrounding how emergency managers felt their emergency preparedness performance should be judged. A figure was chosen to illustrate the ranking as a table did not illuminate the corresponding values. A value of 1 was given for the most important criteria and a value of 6 was given to the least important criteria. The highest ranking choices for means to evaluate emergency manager choices are the production of plans, procedures, exercises, and trainings; the efficiency and

effectiveness at completing preparedness activities; and the level of coordination with government management officials. These choices represent the most valued means to judge emergency manager performance. The least valued performance factors were the ability to gather community input and satisfy community concerns; the ability to satisfy the concerns of local government elected officials; and the ability to satisfy the needs of my immediate supervisor.

Please rank by importance how you feel your emergency preparedness performance should be judged regarding management of individuals with household pets or service animals prior to a disaster should be judged.

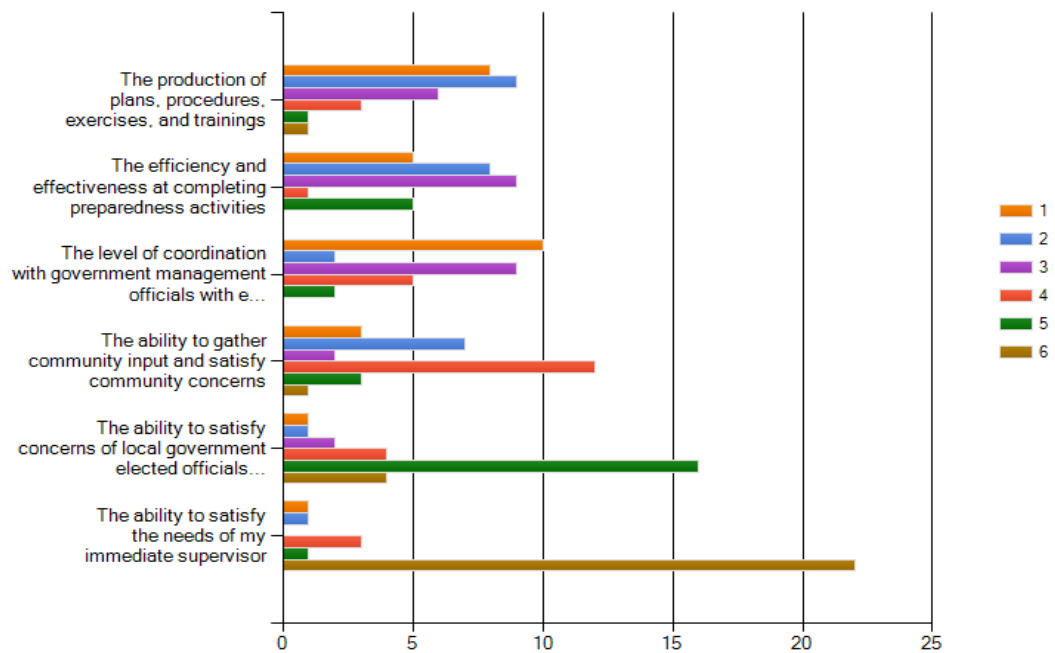


Figure 1: Emergency Manager Attitudes Regarding Performance Evaluation

Discussion

The purpose of this study was to pursue the question of how local government emergency managers in New Mexico are preparing to address the needs of individuals with household pets and service animals prior to a disaster. To answer the question to the

fullest extent, two study goals were developed. The first study goal was to measure one state's preparedness activities as motivated by the PETS Act legislation. The second study goal was to characterize emergency manager style and behavior during in the implementation of preparedness policy concerning individuals with household pets and service animals.

In pursuit of the above stated research question, a case study approach was used and a census survey was emailed to local government emergency managers in New Mexico to gather quantitative data. A framework was applied to the survey focusing questions on knowledge, attitudes, and behavior. The knowledge, attitude, and behavioral questions were extended into two major thematic areas: PETS Act preparedness and Jeffersonian and Hamiltonian emergency manager approaches. To conduct data analysis, descriptive statistics, as aligned with the nature of the research question and the case study approach, were used.

The results of the research showed low preparedness activity throughout the state with minimal planning, training, and exercising related to individuals with household pets and service animals. The normative theories of emergency manager approaches to preparedness, however, showed many Hamiltonian emergency manager characteristics. These results and their implications are discussed below.

PETS Act Preparedness Activities

The results of this study suggest that overall preparedness activities to address the needs of household pets and service animals are low. Although the need for addressing individuals with household pets and service animals prior to a disaster is backed by

copious amounts of scholarly research, a federal law stemming from the hardships surrounding animals in disaster during Hurricane Katrina, and acknowledgement of the importance of PETS Act implementation by local government emergency managers, the associated preparedness activities were not observed in this study. How New Mexico emergency managers are planning, training, and exercising to address the needs of individuals with household pets and service animals provides insight into the effect of a national law on a rural state.

As the results of the research show, a considerable number of local government emergency management organizations are not following the requirements of the PETS Act. The 37% of participants that reported not including individuals with household pets or service animals indicates that neither the federal law nor NMDHSEM Local Emergency Operations Plan Crosswalk requirements for emergency operations plans are being met. Additionally, half of participants reported that only some of the NMDHSEM requirements were complete. A little less than a third reported not being aware of any NMDHSEM requirements. The knowledge question of what animals should be considered household pets and service animals gathered wide-ranging responses. Furthermore, half of the participants did not know the implications for not meeting the PETS Act requirements. These results suggest a lack of awareness and overall lack preparedness activity.

The training component of preparedness in New Mexico was also relatively low. As depicted by table 2, only 25% of participants were familiar with the PETS Act. In addition, low levels of familiarity with the other foundational legislation and policies surrounding emergency preparedness were reported. Direct FEMA coursework such as

independent study courses relating to animals in disaster was minimal. The highest percent of participants having completed animals in disaster training was the 30.8% reported for FEMA IS 10.a Animals in Disaster: Awareness and Preparedness.

Emergency managers did report having the basic FEMA IS 100, 200, 700, and 800 courses pertaining to ICS, NIMS, and the NRF (92.9%); however, only 53.6% had taken the FEMA professional development series, 25% were NEMA Certified Emergency Managers, and no participant reported being an IAEM Certified Emergency Manager through the International Association of Emergency Management. These statistics are not meant to suggest any notions surrounding emergency manager performance, but only to depict the relative training in the context of preparedness and PETS Act requirements.

As preparedness is progressive in nature, the result of not planning negatively affects the exercise processes. If there is no emergency plan, there is nothing to exercise. The level of exercises addressing the needs of individuals with household pets and service animals in New Mexico, as depicted by HSEEP, has not progressed past a tabletop exercise. Only one emergency manager reported having conducted a table top exercise, two reported conducting workshops, and two reported having an informal seminar. The majority (82.1% or 23/28) reported not having exercised any plans related to the management of individuals with household pets or service animals. The above stated low percentage of emergency managers fulfilling the planning requirement of the PETS Act is reinforced by the lack of PETS Act related exercises by New Mexico local government emergency managers.

As illustrated above, planning, training, and exercises addressing the needs of individuals with household pets and service animals are minimal. The results of this

study are relatively consistent with the results of the Decker *et al.* (2010) study “Emergency and Disaster Planning at Ohio Animal Shelters.” Although the study focused mostly on animal shelter emergency preparedness, the study of Decker *et al.* uncovered a lack of community emergency preparedness surrounding PETS Act components. The study also found that only 33% of disaster response agencies were aware of the PETS Act.

The low preparedness activity in New Mexico means that the other phases of the disaster management cycle will be stressed. Particularly, response activities such as evacuation and sheltering could become a concern when faced with a disaster in New Mexico. Ultimately, the burden of responsibility to address the needs of individuals with household pets and service animals will be placed on emergency managers and first responders during the hazard event itself. With this discussion in mind, the next thematic area of normative theories of the emergency manager approach holds more value.

Hamiltonian and Jeffersonian Emergency Manager Approach

The results of this study suggest that emergency managers in New Mexico have incorporated many characteristics of the Hamiltonian emergency manager approach. The distinguishing characteristics of education levels, attitudes surrounding performance and stakeholder involvement, and civic engagement in the planning process showed that New Mexico emergency managers were characterized largely by Hamiltonian traits. In the emergency manager education, the first area of study, 82% of the participants reported having received education beyond the high school level. Additionally, approximately 43% of the emergency managers that participated had obtained at least a bachelor’s degree.

Emergency manager attitudes toward performance evaluation also reflect a Hamiltonian approach. As illustrated in Figure 1, emergency managers felt that they should be judged primarily by the productions of plans, procedures, exercises, and trainings; the efficiency and effectiveness at completing preparedness activities; and by the level of coordination with other government managers. These Hamiltonian preferences were ranked higher than the Jeffersonian values of being judged by the ability to gather community input and satisfy community concerns and by the ability to satisfy concerns of local government elected officials.

The third area characterizing New Mexico local government emergency managers as Hamiltonian was the public engagement during planning activities. Although many emergency managers reported they would value a planning team for their EOP consisting of local government officials, business leaders, and other engaged citizens, only 2 respondents said they would value only non-government stakeholders and citizens. How local government EOPs were actually created was overwhelming Hamiltonian: 10.7 % wrote the EOP individually with little outside assistance, 21.4 % wrote the EOP as a joint effort with other nonelected government leaders, and 46.4% contacted the EOP to a private consultant business. All of the above stated activities are considered Hamiltonian characteristics as the activities all reflect a technocratic approach to emergency preparedness. The planning activities are not seeking public input or valuing elected officials as would a Jeffersonian emergency management approach. In total, approximately 80% (22/28) of respondents acted in a Hamiltonian style when creating their emergency operations plan. It should be noted, however, that since no exercises

were reported beyond the tabletop level, the characterization of Hamiltonian emergency manager approach did not extend past the planning behavior and attitudes.

If New Mexico local government emergency managers are characterized as mostly using a Hamiltonian emergency manager approach as discussed in the literature review, they can be expected to operate and make decisions independently based off of their expertise (Sylves, 2008). Hamiltonian emergency managers hold executive decisions and actions as paramount and value being an expert. These behaviors and values are reflected in the survey data from this thesis and the analysis of preparedness activities. Perhaps, this explains the lack of preparedness activities from the first study goal; emergency managers may believe that their technical expertise will allow them to address the needs of individuals with household pets and service animals during a hazard event without having to expend the energy on preparedness activities.

Translated back onto the profession of emergency management, this characterization means that emergency management is showing signs of becoming highly professionalized—or at least New Mexico emergency managers are trending toward this conclusion. This professionalization is reflected in the literature review and William Waugh (2000)'s discussion regarding the direction of the emergency management as an aspiring profession. Based off of the attitudes on preferred performance evaluation and the exclusion of public participation during the planning process, New Mexico emergency managers appear to have confidence in their knowledge, skills, and abilities pertaining to emergency preparedness. This confidence correlates with Sylves(2008) definition of a profession as having knowledge, skills, and abilities not easily understood by the general populace, which also could explain the exclusion of the public in the

planning process. Without directly identifying the causes for behaving in a professionalized manner, the results of this study show emergency management in New Mexico as becoming highly professionalized.

However, before lauding the emergency management organizations in this study for the movement towards becoming a profession, a critical look at the downside of a Hamiltonian approach must be observed. As discussed by Laurence E. Lynn and concurred by Richard Sylves, emergency managers cannot easily adopt both approaches (Sylves, 2008, pg. 28-30). Therefore, if the majority of New Mexico emergency managers are using a Hamiltonian approach to emergency preparedness, then they are not easily able to adopt Jeffersonian characteristics. As described in the literature, Jeffersonian emergency managers are skilled communicators that understand public sway and seek public and support. Jeffersonian emergency managers seek strong community participation and value democratic participation. As this notion describes, and as supported by the data from this study, New Mexico local government emergency management is missing public participation.

Public participation and civic engagement in preparedness activities equals better disaster response and resilience (Kirlin & Kirlin, 2002; Kupucu, 2008). If New Mexico emergency managers do not heed the value of the democratic process and incorporate citizens in the planning process, disaster response could prove more demanding. Kupucu (2008) discussed the implications of public participation in “Collaborative emergency management: better community organising, better public preparedness and response.” Kupucu states that “successful participation in pre-disaster, consensus-building emergency planning processes can lead to strengthened organizational relationships that

improve the effectiveness of response operations and community coordination” (pg. 244). Although the majority of New Mexico Emergency managers are acting in a Hamiltonian manner with technocratic confidence, this approach comes with the risk of losing effectiveness in response operations due to lack of civic engagement. Ultimately, this approach can lead to placing a higher burden on emergency manager responsibilities during a disaster response.

The following characterization of New Mexico emergency managers is meant to explore the implications of the Hamiltonian and Jeffersonian normative emergency manager theories. This research is not attempting to steer practitioners or researchers toward valuing one approach over the other. Both approaches have both positive and negative effects. Whether acting in a Jeffersonian or Hamiltonian style practitioners should be mindful of the potential shortcomings of either approach. When conducting emergency management research, it should also be noted that the chosen normative theory has an impact on preparedness evaluation. Researchers or evaluators should be cautious when expecting results for simultaneous public participation and technocratic knowledge, skills, and abilities.

Limitations

As the method used to explore the research question listed above was a case study that resulted in a survey being completed by 28/52 local government emergency managers, there are discussion-worthy limitations. As the sample size consists of one state and the sampling was based off of convenience, multiple limitations apply. First, generalizations should not be made about the preparedness pertaining to any of the forty-

nine other U.S. states. Also, only 28/52 emergency managers participated in the survey; therefore, the ideas may not fully represent all New Mexico emergency managers.

In addition, the limitations discussed by Gerber and Robinson (2009) on the approaches of preparedness assessments apply to the survey used for this thesis. Limitations include the possible biasness of respondents and difficulty depicting general preparedness levels from the specific preparedness behaviors evaluated (Gerber & Robinson, 2009). However, having acknowledged these potential limitations, this thesis was designed to provide a baseline for future research. The recommendation for similar studies for comparison is further conversed in the implications for future research section.

Nevertheless, these limitations do not render the data useless. The State of New Mexico provides an excellent means to study the PETS Act implementation at the “whole community” level in a rural state. Starting with the lowest level of government in a location with minimal geographic connectivity to large population centers can provide an excellent example of the depth of emergency preparedness policy and bottom level implementation activities.

Implications for Future Research

First, this research sought to answer a descriptive question and provide a baseline for future research in similar areas. Thus, future research pursuing similar descriptive questions and study goal criteria is suggested for comparative and validation purposes. Furthermore, it is recommended that future exploratory research of PETS Act implementation and public policy focus on the state level. Pursuing the above stated descriptive questions with using qualitative or mixed methods is also recommended.

Second, this research brings up multiple relationship-type questions. Future research exploring the “why” questions could help to reach emergency manager goals. For example, as shown by the results, the PETS Act is not being fully implemented. Asking future questions such as why the PETS Act is not being implemented would be of benefit for the field of emergency management, public policy, and public administration. Identifying the relationship between lack of compliance and possible independent variables such as the types of hazards faced by a state, issue salience, and the knowledge of incentives, could prove valuable to future PETS Act research. Research seeking to explore such relationships could be of benefit to government policy makers, emergency management practitioners, and emergency management scholars.

Third, it is recommended that future research focus on pursuing normative type questions. Testing of the two normative theories of Hamiltonian and Jeffersonian emergency manager approaches in emergency preparedness could benefit the academic and practitioner pursuing the expansion of knowledge and limiting the devastation caused by disasters. Also, further testing of the theories while expanding the study outside of emergency preparedness to the mitigation, response, and recovery phases, would be of value. Similarly, program evaluation studying outcome and impacts of emergency manager preparedness approaches after a disaster is recommended.

Conclusion

It appears as if 2013 is a year that will test the disaster management capabilities of the United States—and there is no sign of disaster occurrences waning. The United States has had a long history of painful lessons-learned from disasters. Throughout U.S. history, the disaster policy has been largely reactive. However, after the terrorist attacks

of 9/11, there has been a surge in momentum towards the emergency preparedness phase of the disaster management cycle. Because the number of disasters is on the rise, and the push in policy is toward a proactive approach, the opportunity to contribute meaningful research presents itself in area of emergency preparedness.

The PETS Act of 2006 provides a means to observe and study emergency preparedness as the law requires functional planning components at the state and local government level. Additionally, there have been few studies focusing on the implementation of the PETS Act. To take advantage of the opportunity, this thesis used a case study approach to observe the preparedness activities of local government emergency managers in New Mexico.

The results of the case study indicated low levels of activity in emergency planning, training, and exercising for emergency preparedness issues covered by the PETS Act. In addition, the results of the New Mexico Case study indicate that the majority of local government emergency manager behavior reflected the normative theory of the Hamiltonian emergency manager approach. Both the low levels of preparedness and the employment of an emergency management approach that can be characterized as Hamiltonian suggest an over-tasking of the response and recovery phase.

In pursuing the research question of how local government emergency managers are preparing to address the needs of individuals with household pets and service animals prior to a disaster, the case study of New Mexico provided an in-depth example into local government preparedness activities as motivated by the PETS Act. By exploring emergency preparedness activities such as planning, training, and exercises, as well as

Hamiltonian and Jeffersonian normative emergency management approaches, it is hoped that this case study will serve as a starting point for future PETS Act and emergency preparedness researchers. Furthermore, it is hoped that this thesis provides a comparative context for practitioners at the state and local level, and illuminates policy reach for policy makers in the emergency management field.

Appendix

Research Questionnaire:

1. How many employees does your emergency management organization have?

- 1
- 2
- 3
- 4
- 5+

2. What is your current level of education?

- High School
- Some College
- Associate's Degree
- Bachelor's Degree
- Master's Degree
- Ph.D. or equivalent
- Other (please specify)

3. Which of the following best describes the field in which you received your highest degree? (Choose N/A if no college degree)

- Emergency Management
- Political Science
- Business
- Public Administration
- Science
- Engineering
- N/A
- Other (please specify)

4. About how many years have you been in your current position?

- Less than 1
- 1-2
- 2-3
- 3-4
- 4-5
- 5-10
- 10+

5. What was your employment experience immediately prior to entering your current position?

- Military
- Fire
- Police
- Emergency Medical Services
- Emergency Communications/Dispatch
- Other (please specify)

6. Organizationally, where is your office located?

- Within the Fire Department
- Within the Police Department
- Within the Emergency Medical Services
- Stand Alone Department Reporting to a Governing Body (Commission or Council)
- Stand Alone Department Reporting to an Executive Official (City Manager, City Administrator, or Mayor)

7. What is the approximate population of your jurisdiction?

8. In the last 10 years, what types of natural or manmade disasters have prompted the activation of the jurisdiction's Emergency Operations Center (EOC)?
(Check all that apply)

- Wildand Fire
- Structure Fire
- Medical Event
- Earthquake
- Tornado
- Flood
- Landslide
- Have not activated the EOC within the last 10 years
- Other (please specify)

9. Of the following list, which documents would you say you are very familiar with?
(Check any that apply)

- FEMA Comprehensive Preparedness Guide 101 (CPG 101) requirements for planning for individuals with pets or service animals prior to a disaster
- Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93288)

NM DHSEM Local Emergency Operations Plan Crosswalk requirements for planning for individuals with pets or service animals prior to a disaster

Pet Evacuation and Transportation Standards Act of 2006

I have not read any of these documents

10. What trainings have you completed on animals in disaster?
(Check all that apply)

FEMA IS 10.a Animals in Disasters: Awareness and Preparedness

FEMA IS 11.a Animals in Disasters: Community Planning

FEMA IS 111.a Livestock in Disasters

FEMA IS 811 ESF #11 Agriculture and Natural Resources Annex

Other (please specify)

11. What emergency management certifications and qualification do you hold?
(Check all that apply)

International Association of Emergency Management Certified Emergency Manager

New Mexico Emergency Management Association Certified Emergency Manager

Federal Emergency Management Professional Development Series

FEMA IS 100, 200, 700, 800

Other (please specify)

12. What are the key sources of information you would turn to regarding managing pet related issues?
(Check any that apply)

NM Department of Homeland Security and Emergency Management

Previous Training Materials

New Mexico Emergency Management Association

International Emergency Management Association

Local Animal Shelter

Animal Humane Society

Other (please specify)

13. The consequences for noncompliance with the PETS Act requirements for planning for individuals with household pets and service animals are as follows:

(Check all that apply)

Federal Emergency Management Agency

My jurisdiction will not qualify for Homeland Security Grants Program funding

I can be held personally liable for civil law suits

My jurisdiction will not qualify for Department of Transportation Grants

My jurisdiction can be held liable for civil law suits

My jurisdiction will not qualify for the Fire Management Assistance Grant Program (FMAG) funding

I can be indicted on criminal charges from the State of New Mexico

There are no enforceable consequences

Other (please specify)

14. For emergency planning purposes, what animals are considered household pets or service animals?

(Check all that apply)

Cats

Rabbits

Dogs

Livestock (Horses, Cattle, Sheep, etc.)

Rodents

Reptiles

Fish

Birds

I am uncertain of what defines household pets or service animals

Other (please define)

Using the Likert scale below, click the answer that best represents your on-the-spot belief about each statement.

15. How satisfied are you with your level of training regarding preparedness activities for individuals with household pets or service animals.

Very Satisfied
Satisfied
Neutral
Dissatisfied
Very Dissatisfied

16. How satisfied are you with your jurisdiction's Emergency Operations Plan and the components pertaining to individuals with pets or service animals.

Very Satisfied
Satisfied
Neutral
Dissatisfied
Very Dissatisfied

17. How satisfied are you with the exercises conducted within your jurisdiction preparing you for the management of individuals with household pets or service animals during disasters?

Very Satisfied
Satisfied
Neutral
Dissatisfied
Very Dissatisfied

18. I feel that planning and other preparedness activities pertaining to the management of individuals with pets or service animals is important.

Strongly Agree
Agree
Neutral
Disagree
Strongly Disagree

19. Seeking community and stakeholder involvement is burdensome in emergency planning efforts.

Strongly Agree
Agree
Neutral
Disagree
Strongly Disagree

20. In the process of writing an Emergency Operations plan for my jurisdiction, my ideal emergency planning team would consist of:

Myself and my own expertise

A small committee (5 or less) of local government officials (fire, police, public works, EMS, etc.)

A large committee (5 or more) of mostly nongovernment stakeholders ranging from business leaders to engaged citizens

A large committee (5 or more) consisting of local government officials, business leaders, and other engaged citizens

Private business emergency management consultants with my interaction and oversight

Other (please specify)

To answer the following two questions, please rank the choices in each item below in order of their importance to you with 1 being the highest.

21. Please rank by importance how you feel your emergency preparedness performance should be judged regarding management of individuals with household pets or service animals prior to a disaster should be judged.

The production of plans, procedures, exercises, and trainings

The efficiency and effectiveness at completing preparedness activities

The level of coordination with government management officials with emergency responsibilities (fire, police, EMS, public works, etc.)

The ability to gather community input and satisfy community concerns

The ability to satisfy concerns of local government elected officials (Mayor, City Commission, County Council, etc.)

The ability to satisfy the needs of my immediate supervisor

22. Please rank by importance of stakeholder involvement in emergency preparedness activities surrounding household pets or service animals.

Local Government Elected Officials (Mayor, County Council, City Commission, etc.)

Local Government Leadership (Fire, Police, EMS, Public Works, etc.)

Local Government Employees (Any department)

Local Private Sector Business and Nonprofit Organizations

Citizens with Pets and Service Animals

Any Engaged Citizen within the Jurisdiction

23. How did your department create your Emergency Operations Plan(EOP)?

Wrote EOP individually with little outside assistance

Wrote EOP as a joint effort with other local government leaders (fire,police, EMS, etc.)

Wrote EOP as a joint effort with the assistance of constituent citizens, business, nonprofit, and government representatives

Wrote EOP as a joint effort with mostly nongovernment citizen, business, and nonprofit representatives

Contracted the EOP writing to a private consultant business

Delegated the EOP writing to a committee or separate department

Other (please specify)

24. Does your jurisdiction have a Community Emergency Response Team (CERT)?

Yes

No

25. What level of NM DHSEM Crosswalk Local Emergency Operations Plan Crosswalk requirements regarding planning for individuals with household pets or service animals have you satisfied:

(Check all that apply)

All NM DHSEM requirements pertaining to household pets or service animals have been satisfied

Some of the NM DHSEM requirements have been satisfied

None of the NM DHSEM requirements have been satisfied

I am unaware of the NM DHSEM requirements

26. In your Emergency Operations Plan, where do you address individuals with household pets or service animals?

(Check all that apply)

As a Functional Annex

As a Hazard-Specific Appendix

Incrementally Throughout My plan

I Did Not Include Individuals with Household Pets or Service Animals as a Part of My EOP

Other (please specify)

27. Which level of exercise have you conducted concerning individuals with pets or service animals?

(Check all that apply)

Seminar informal orientation or discussion

Workshop designed to build draft plan or policy

Tabletop Exercise key personnel discussing simulated scenarios in an informal setting

Games simulation of operations in a competitive environment

Drill coordinated activity employed to test a single specific operation or function within a single entity or department

Functional Exercise examines the coordination, command, and control between various multiagency coordination centers. Does not involve "boots on the ground" with first responders.

Full Scale Exercise multiagency, multijurisdictional, multidiscipline exercise involving "boots on the ground" response.

None of the Above: Have not exercised plans managing individuals with household pets or service animals

Other (please specify)

28. Is there anything you wish to add regarding animals in disaster, planning for individuals with household pets or service animals, or the PETS Act requirements?

29. Please leave any additional comments or concerns.

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