This research looks at three western Pennsylvanian cities and examines their disaster response apparatus through examination of critical documents and interviews with emergency coordinators at both the municipal and county levels. In doing this, we seek to see if there is an understanding and awareness of how the National Incident Management System and the National Response Plan operates in these managers. In addition, I explore how the size of these cities influences the emergency planning and decisions made by their municipal and county emergency managers. After conducting the research, I found that there was a correlation between increasing city size and official responses regarding various hazards to be addressed within their community. Larger city managers seemed more concerned with terrorism than their counterparts in smaller cities, and in Pittsburgh it was deemed a significant threat. Other factors, such as number of emergency response exercises and the origin of the city emergency operation plan seemed to change with city size. More striking, however, was the fact that the managers of all three cities shared several similar opinions of the federal and state system as it is, stating dissatisfaction with the grant opportunities and stipulations attached to those available, as well as frustration with the unrealistic expectations of the Department of Homeland Security. It is the researcher’s opinion that there should be more done to limit the number of restrictions placed on money made available from state and federal levels.
in order to assist the local governments in making urban areas both large and small prepared for the hazards they face.
THE ROLE OF EMERGENCY MANAGER PERCEPTION AND CITY SIZE IN DISASTER PLANNING: A COLLECTIVE CASE STUDY

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By
Gregg Bowser

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Thesis written by
Gregg C. Bowser
B.A., University of Pittsburgh, 2006
M.A., Kent State University, 2009

Approved by
David Kaplan, Advisor
Jay Lee, Chair, Department of Geography
Timothy Moerland, Dean, College of Arts and Science
Table of Contents

I. Introduction ........................................................................................................................................... 1
II. Literature Review .............................................................................................................................. 5
   Academic Literature .......................................................................................................................... 5
   American Disaster Relief ................................................................................................................... 8
   Modern American Disaster Response ............................................................................................... 10
   The Role of City Size ........................................................................................................................... 17
   The National Response Plan and the National Response Framework ................................................. 21
   The State Emergency Management Agency: PEMA ........................................................................... 23
III. Methodology ..................................................................................................................................... 25
   Fig. 1 - The Three Cities of the Case Study ....................................................................................... 25
   Government Records ....................................................................................................................... 27
   Government Interviews ................................................................................................................... 27
   Analysis ............................................................................................................................................. 29
IV. Case Studies .................................................................................................................................... 31
   Emergency Operation Plan Overview .............................................................................................. 31
   Butler .................................................................................................................................................. 33
   Fig. 2 - Map of Butler County, with the City of Butler highlighted in red ...................................... 33
   Emergency Operation Plan ................................................................................................................ 34
   City Ordinances and Zoning ............................................................................................................. 36
   Interviews ........................................................................................................................................ 36
   Erie .................................................................................................................................................... 45
   Fig. 3 - A zoning map of the City of Erie ........................................................................................... 45
   Emergency Operation Plan ................................................................................................................ 48
   City Ordinances and Zoning ............................................................................................................. 50
   Interviews ........................................................................................................................................ 50
   Pittsburgh ......................................................................................................................................... 60
   Fig. 4 - Map of Allegheny County, with Pittsburgh highlighted in red ......................................... 60
   Emergency Operation Plan ................................................................................................................ 62
   City Ordinances and Zoning ............................................................................................................. 65
   Interviews ........................................................................................................................................ 65
V. Discussion and Conclusions ............................................................................................................... 72
   Ordnances ......................................................................................................................................... 72
   Emergency Operation Plans ............................................................................................................. 72
   Table 1 - Comparative table of the EOP ESFs in each city ................................................................. 74
   Table 2 - Comparative table of incident specific plans ................................................................... 77
   Fig. 5 - Incident command system hierarchy .................................................................................... 78
   Interviews ........................................................................................................................................ 78
VI. Conclusion ....................................................................................................................................... 84
   Table 3 - Comparative table of city-size influences on various issues .............................................. 84
VII. Bibliography .................................................................................................................................... 88
VIII. Appendix ....................................................................................................................................... 93
To my parents, for their encouragement and support.
I. Introduction

On 11 September 2001, the face of American disaster response changed. Foreign terrorists struck at two iconic American structures, while another narrowly avoided the same fate. What followed was a heroic response to an unprecedented disaster, and then questions about how best to deal with the grim new reality in which the nation found itself. The response was to bring the Federal Emergency Management Agency (FEMA), the preeminent government organization for disaster response, under the umbrella of the newly minted Department of Homeland Security (DHS). With this reorganization came a new enthusiasm and confidence that the nation could handle whatever disasters befell it with similar unity and grace as the events of 9/11.

This optimism would be shattered in 2006 when Hurricane Katrina made landfall in Mississippi and Louisiana. Worst hit was the city of New Orleans, an internationally known urban center. The damaging winds and driving rain of the storm caused the city’s levees to hemorrhage water and eventually caused them to break. This event would cause the city itself to be flooded. To make matters worse, the local government had failed to provide a means of evacuation to a large portion of the city’s population, forcing them to find refuge in the city’s Superdome. This stadium would become the focal point of much of the criticism and discontent from the public at large, as the people there struggled to survive while the local, state and national government organizations would be unable to
provide adequate relief. In the end, what should have been DHS and FEMA’s finest hour became their darkest.

Since the failure of the government response to Hurricane Katrina in the Gulf Coast region, disaster preparedness in the United States has become a hot issue in both the academic circles and within the public at large. In response to this increased scrutiny, the Department of Homeland Security and its subsidiary FEMA further refined the all-hazards plan they had developed: the National Response Plan (NRP). Meant to bring the haphazard nature of American emergency response into one unified structure, the flurry of anti-terror legislation and additions made to the document served to confuse rather than streamline the response process. In order to combat this turn of events, alterations and updates were made to the NRP in the wake of Katrina, and the groundwork was laid to develop a new structure known as the National Response Framework (NRF). It remains to be seen, however, if this new all-hazards approach will be the answer that FEMA and DHS have been seeking.

One thing that some might find striking in both the NRP and the NRF is the emphasis placed on the local levels of government in comparison to the state and federal levels. In both the NRP and the NRF, it is stated in no uncertain terms that the onus of the disaster response is always on the municipal and county governments and that higher levels of government are only to be approached for support after the local levels exhaust their resources during the response. While not a new concept in American disaster response, this bottom-up approach is what is held to be the foundation of the current system. In almost direct opposition to this philosophy, in light of Katrina and other high-
profile disasters, there has been a marked increase in calls to put the onus of action on higher levels of government, who are more equipped to deal with high-cost disasters. The complexities of disaster response and hazard mitigation seem to dictate that resource and manpower starved places like cities cannot possibly handle.

So, who in this argument is right? Are the local emergency response elements so overwhelmed by their responsibilities in a disaster event that they should not be considered the primary element during the response and recovery? Or have they risen to the challenge laid before them by the federal system, and are ready and willing to respond in a disaster event with little to no higher level prodding? Furthermore, what role does the population size of a city play in disaster preparedness and hazard mitigation? How does it play into the thinking and planning done within a city?

In the following research, I explore these questions in several ways. First, I review the emergency operation plans of three western Pennsylvanian cities of varying sizes: Butler, Erie, and Pittsburgh. In addition, I take an in-depth look into certain hazard-related aspects of each of the city’s zoning model, as well as various other ordinances on record that directly relate to disaster events. Finally, I have interviewed the emergency management coordinators for each of the cities and their respective counties regarding the challenges and issues they face in preparing their cities for disasters.

By reviewing these three parts of the disaster response mechanism found in these cities, I hope to determine how the size of a city influences how its government prepares for disasters, and how the opinions of local emergency managers regarding the state and federal system changes between the three cities. Do they believe that disaster response in
the United States is heading in the right direction, and where do they feel that it can improve? Do they understand the National Incident Management System (NIMS), the system underlying the NRP and NRF, and how do they use it in their work? And how do their responses vary between cities?
II. Literature Review

Academic Literature

Governmental planning encompasses all stages of hazard and disaster planning. Included are hazard mitigation, the government-implemented strategies and plans which are meant to reduce a place’s vulnerability to a specific hazard; disaster preparedness, the action plans made by emergency managers in order to cope with and respond to a disaster before the disaster occurs; disaster response, the activation of plans made in the preparedness stage and mobilization of first-responders to the area; and finally, disaster recovery, which occurs after the disaster event has ended, is the stage when the area is restored to normalcy (Mileti, 1999).

While this may seem to be simple matter of addressing these four areas of planning, to do so with the greatest degree of effectiveness would require more time and money than any government can (and definitely more than it would be willing to) spend. There are only so many resources available to a government to fund every function they provide for their citizens, and spending a substantial amount on what may be a statistically improbable event is simply unfeasible (Burton et al, 1992). Therefore, as Tobin and Montz (1997) state, emergency planning is a dynamic and multifaceted process that becomes a compromise between practicality, safety, and risk.

As far as this research is concerned, there are effectively three levels of government that should be considered when discussing governmental planning. The first
is the federal or national level, which in this case is the United States government and its various departments concerned with hazards and disasters (most notably the Department of Homeland Security and the Federal Emergency Management Agency). The second is the state level, including the office of the state governor and the departments under his direct control (in this case, the Pennsylvania Emergency Management Agency). The third and most geographically limited level is the local level, which in this case represents city and county jurisdictions.

It can be time-consuming and difficult to develop effective hazard or disaster responses, and due to the unpredictable nature of disasters it may seem to be an exercise in futility (Uitto, 1998). The importance of governmental planning, however, should never be discounted or dismissed out of hand. There is no question that good hazard and disaster planning saves lives and protects property. Gupta and Ahmad (1999) examined three tropical cities and their hazard mitigation efforts. Perhaps the most striking contrast was between Kingston, Jamaica and Singapore.

Kingston is a city situated in a terrible geographic location. It is subjected to seismic hazards, heavy rainfall events, and hurricane winds. Despite exposure to and first-hand knowledge of these conditions, the people who inhabit Kingston continue to engage in hazard exacerbating and disaster inducing behavior. The steep slopes surrounding the city proper are inhabited by lower classes who cannot afford rents within the city proper. The upper classes are there too, making their homes in the places with the more scenic vistas on the slopes. Whenever a heavy rainfall event or earthquake strikes the city, landslides occur and destroy the houses on the slopes. Once the affected area is
reclaimed and the damage cleaned up, the settlement process begins anew. The city
government, knowing full well of the dangers, has yet to implement a significant measure
to stop this self-destructive behavior. Thus, this cycle of destruction continues unabated.

Singapore, on the other hand, is a city-state that successfully manages the hazards
that threaten it. The rapid expansion of the city has lead to a man-made propensity for the
city to flood during heavy rainfall events. In order to counter this, the government
mandated that all new developments must include a large drainage channel nearby in
order to alleviate the risk of flooding and retroactively constructed such canals near
trouble spots. As new problems in the Singapore landscape arise, they are quickly tackled
through government action and landscape engineering (Ahmad and Gupta, 1999). While
an argument can be made that Singapore is better off economically than Kingston or even
the whole nation of Jamaica and is therefore in a better position to address natural
hazards, that argument only covers the use of physical elements to mitigate the hazard.
Though this example of Kingston and Singapore may seem unrelated to this research at
first, it is through the extreme nature of it that the importance of sound governmental
hazards planning in urban areas becomes evident.

There are three goals of government in hazard and disaster planning: containing
and modifying the hazard to lessen its impact, protecting people and property in known
hazard areas, and limiting the use of hazardous areas (Godschalk and Brower, 1985). In
the early days of the United States, these tasks fell exclusively to the local governments.
The national government was not responsible for any loss of life or property experienced
by people living in hazardous areas, and was generally not held accountable by the
public. However, in the nineteenth century all of this would change.

**American Disaster Relief**

The history of national efforts to improve hazard mitigation and disaster response in the United States can be traced to the year 1889 when the federal government, in conjunction with several other nations, contributed a great deal of money to Johnstown, Pennsylvania following a catastrophic flood that devastated the city. After this event, Congress continued to pass legislation to provide relief to communities that had experienced disasters.

Eventually, disaster relief and recovery would be institutionalized under the Department of Housing and Urban Development as the Federal Disaster Assistance Administration in 1960 (Platt, 1999). Despite the government’s efforts to bring all disaster recovery and response functions under one organization’s control, numerous other agencies were still actively involved in the field. The situation would lead to several different government organizations jockeying for control in a disaster situation. Furthermore, many of the responses to hazard concerns in localities were purely technological in nature, including engineered systems such as dams and levees. While these were used as testaments to the ingenuity and resourcefulness of man, they would eventually become so costly to build and maintain that they would become essentially unfeasible as an answer to each and every hazard that threatened American communities.
In 1978, Congress enacted legislation proposed by President Jimmy Carter that would lead to the creation of the Federal Emergency Management Agency (FEMA) in 1979. This newly created agency, reporting directly to the President, was placed in charge of not only overseeing engineering projects aimed at mitigation but also planning non-technological hazard mitigation, disaster response, and disaster preparedness measures. Carter’s executive action would represent a change in how disaster recovery and response would be dealt with in the United States, and FEMA would be the lead organization in all things disaster-related until 2003.

During the Clinton administration (1993-2001), FEMA would shift its focus away from simply responding to disaster events after the fact to mitigation under the direction of then-Director James Lee Witt. This shift was, in part, due to the increasing costs of rebuilding after a disaster as well as the fact that the costs showed no sign of abating (Platt, 1999; Burton et al, 1992). After the terrorist attacks of 11 September 2001, legislation proposed by President George W. Bush would bring FEMA under the auspices of the newly-minted Department of Homeland Security (DHS) as part of a dramatic reorganization to combat terrorism. It would join several formerly autonomous organizations under the DHS umbrella, but would still maintain the lead in disaster response.

FEMA’s record in handling disaster events, at least in the public eye, has been viewed with skepticism. Prior to its absorption by DHS, FEMA was consistently under fire for its handling of high-profile disasters such as the aftermaths of Hurricanes Hugo and Andrew. Even after what was largely considered an excellent response to the 11
September 2001 attacks, FEMA would quickly come under fire once more for the bungled Hurricane Katrina response on the coast of the Gulf of Mexico in 2005. As of this writing, the wounds of Katrina are still apparent and serve as a lasting reminder of what a failed response to a disaster can mean for the United States. Even several years later, the nation is still dealing with the effects of the disaster and trying to come to terms with it. (Morris, 2006)

**Modern American Disaster Response**

Even before the inception of FEMA, there had been an increasing dependence of urban areas on federal sources of financial and logistical support for disasters. More to the point, a lot of the money and support has been requested after the disaster event has occurred, since many local-level governments do not put much emphasis on preventive measures. This trend has even continued after the Clinton administration pushed a policy of mitigation over post-event response (Platt, 1999). Rubin and Barbee (1985), in their discussion of intergovernmental interaction between national, state, and local levels during disaster recovery, noted this predisposition of local officials to ignore hazard issues until they gave rise to disaster events. In 1993, seventy-three percent of the federal expenditures for disaster assistance went to post-disaster recovery activities, while twenty-four percent was used for pre-disaster preparation and mitigation (Platt, 1999). When a disaster event does finally occur, local governments often find themselves at a loss of what to do to prevent loss. At this point, with public pressure mounting for a
return to normalcy and no readily available means to bring it about, local governments may feel compelled to force the federal government’s hand.

However, immediate and overarching federal intervention, even at the request of the local government, can lead to a muddled and inefficient response to a disaster or even in addressing a routine hazard. Parkes and Day (1975), in a study of the sensitive clay hazards present within a Canadian community, cited the conflicting personalities and motivations of the various levels of government as being the primary reason why action had not been taken to mitigate the hazard. The public, usually found to be unaware of the hazard, had no idea who was responsible for informing them of the problem, and in the end believed it to be their sole responsibility to take any action on the issue. Rubin and Barbee (1985) also noted that when a Presidential disaster declaration is in force, the state-level disaster response apparatus is effectively removed from the equation since FEMA is generally mobilized to support the affected local governments. This can be a tempting bypass for local officials who may feel overwhelmed by a disaster, as the huge resources of the federal government may seem like a cure-all to their ills. However, Rubin and Barbee (1985) found that such a move can actually lead to conflict between all parties about each one’s role and what the priorities are.

In short, the literature reinforces the federal government’s belief that more effective disaster responses occur when all levels of government respect a strict “bottom-up” approach, where the local government takes the lead and appeals to higher orders of government (first state then federal) as the problems they encounter escalate to levels they deem to be unmanageable. This determination and sentiment is a recurring theme,
both implicitly and explicitly, throughout much of hazards literature in recent years (Waugh and Sylves, 2002; Wilbanks and Kates, 1999; Perry and Lindell, 1997; Gerber et al, 2005). A question remains: in the face of international terrorism and state-spanning natural hazards, should it still fall to the local governments to deal with these issues?

After Hurricane Hugo struck Charleston, South Carolina, then-Mayor Joseph Riley said, “The national government should assume full responsibility for a national disaster like Hugo” (Schneider, 1992). Mayor Ray Nagin of New Orleans would echo this statement in the wake of Hurricane Katrina, which had inflicted a massive amount of damage to the city. “I don’t know whether it’s the governor’s problem. I don’t know whether it’s the president’s problem. But somebody needs to get their ass on a plane and sit down, the two of them, and figure this out” (Dreier, 2006). This sentiment, shared by two different high-level city officials in the wake of disaster, demonstrates what has become a serious lack of hazards information at the local level. Neither official, in these statements, claim any responsibility in a situation that should be under their control.

These two statements, rather, show two local officials becoming victims of a larger system. While this may seem to be simple political maneuvering, it is a dangerous situation where elected officials on any level believe they are absolved of all guilt because of the failings of other officials, no matter how overwhelming the situation. During the 11 September attacks on the World Trade Center in New York City, the island of Manhattan was evacuated prior to FEMA’s arrival through the efforts of a government official who was not even in the city during the incident (Cohen et al, 2002). Even in the
most overwhelming of circumstances, the local actors can have a profound effect on protecting life and property.

However, it stands to reason that a strong case can be made for higher-level priority in hazards planning and disaster response. Pearce (2003), in her brief look at the history of disaster management, postulates that planning “has been viewed from a paramilitary perspective” traditionally and therefore is a concern of civil defense organizations (which are commonly not found at the local level) more than a function of a civilian government. There may also be a lack of information at the local level about what exactly constitutes a hazard worthy of management (Burton et al, 1992; Mitchell, 1999). Perhaps the most compelling reason is the lack of resources available to the local government in comparison to the state and federal governments, both in money and manpower. The tax base at the command of any local government, no matter how large it may be, does not compare to the money available to those higher up the jurisdictional ladder. Elected officials at the local levels may also have more “pressing” concerns, such as keeping up with campaign promises or other local issues that may directly impact their chances of reelection. Hazards are generally found to be one of the issues most distant from the thoughts of these elected officials, and an issue that they are likely to leave to their emergency managers and first-responders such as firefighters and police. At higher levels however, increased resources ensure that there are elements in place that can freely pursue such issues such as dedicated disaster and hazard response staff.

Ironically, the most common impetus that sends mitigation and disaster response to the front of the political agenda is a large scale disaster. In most cases, a fix or counter
to a hazard is quickly sought after a disaster comes to prevent such loss from happening in the future (Godschalk, 2002). However, a movement to develop public policy or measures to reduce vulnerability in the wake of disaster can rapidly dissipate as more pressing urban issues come to the fore (Mitchell, 1999). One of the most compelling issues may come in the form of public pressure for the local government to reestablish a sense of normalcy as soon as possible, precluding any meaningful hazard reduction measures as demand grows for things to go back to “business as usual.” (Godschalk and Brower, 1985)

In lieu of a disaster, there may be some efforts from state or federal government agencies to get local governments to invest in hazards reduction measures. Burby and Dalton (1994), in their study of the role of state mandates and land-use plans for hazard reduction, found that state directives were instrumental at bringing such issues into focus in municipalities. A poll of local planning officials in five states found a significant increase in attention paid to land-use plans and linkage to “vote-friendly” issues such as the creation of recreational green-spaces in places that should not be developed when the state pushed such legislation (Burby and Dalton, 1994). In addition, their statistical analysis showed that communities with planning mandates from the state government have fewer instances of catastrophic loss and repetitive loss, as well as greater manpower allocation to the issue. These gains are directly associated to the state mandates, as study “demonstrates that local governments are not likely to adopt such plans without state or federal mandates (that are actively monitored and enforced)” (Burby and Dalton, 1994). May (1994) confirmed this with his research on state mandate design on local land-use
policy, finding that even if there are mandates in state law local places would not pursue them without active state-level interest.

Lack of resources and motivation aside, the fact remains: the local government is the most suited to effective hazard and disaster response. Federal funding and support regarding hazards and disaster is supposed to be supplementary in nature, serving only to augment the efforts of the local actors (Platt, 1999). Indeed, the readily available nature of federal assistance has served to weaken local response (Platt, 1999), and the argument could be made that in larger urban areas suburbanization and eroding tax bases have handicapped any meaningful response at the local level. But as the first government element to be impacted by a hazard or disaster and indeed the one most familiar with the lay of the land within the urban area, they are the most capable to effect a quick and comprehensive plan in handling disasters and hazards. But, perhaps more important than that, the local government is the most capable at working together with the community itself. Flexible, community-centric responses are critical in crafting effective hazards policy, and that is something that larger government entities cannot readily develop (Pearce, 2003; Perry and Lindell, 1997). These factors are, in the opinion of the literature reviewed, considerably more important than raw resources. Rubin and Barbee (1985) listed four aspects of successful governmental response at the local level, and of them only one (Ability to Act) requires substantial resources. The other three aspects (Reason to Act, Knowledge of What to Do, Political Awareness and Astuteness) require only “flexibility, adaptiveness, and creative leadership.” These three items are things that are “on the cheap,” found readily in government organizations at all levels.
The review of hazards literature on government planning shows favoritism for a “bottom-up” approach to hazards planning and disaster response, but in the real world local governments seem to favor direct and often copious federal government intervention when it comes to major disaster events. This increasing dependence on federal support serves as a crutch to local governments, in which officials are generally not concerned with hazards and disasters as a political issue until they actually occur (Gerber et al, 2005). To this end, federal support has become almost obligatory and in many ways increasingly demanded by local lawmakers. (Platt, 1999)

Contributing to this situation are the mixed messages being sent by the federal government in the wake of the September 11 terrorist attacks and the establishment of the Department of Homeland Security (Gerber et al, 2005). The flurry of complex counterterrorism information and legislation has left many local governments at a loss as to what they should do, despite the fact that they are considered integral front-line elements in homeland security. With the decidedly top-down nature of information in the war on terrorism, it becomes hard and in some ways undesirable for local governments to spend time and resources developing integrated hazard plans for both natural and anthropogenic hazards. White et al (2001) contend that “as long as disaster losses can be absorbed by an economically rich society [like the United States], the motivation for action to counteract losses [from hazards and disasters]… is not likely to be strong enough.” In today’s political climate in the United States, there seems to be a great deal of truth in this statement as most local governments are content to adhere to a “wait-and-see” approach or appealing for federal intervention when an event comes to pass.
(Godschalk and Brower, 1985)

**The Role of City Size**

At the crux of this study is the idea that the size of an urban area plays a part in the development of hazard and disaster plans it develops. Scale of the urban area has been long neglected in the urban hazards literature, and is perhaps one of the most critical aspects to effective hazard planning and response (Cross, 2001; Kates, 1994; Gerber et al, 2005). How we perceive threats to our lives and property directly affects how we plan for them (if indeed we perceive them at all). The size of the places we live in may affect our perception and inclination to action against certain hazards and disasters.

Indeed, a great deal of this research is based on how officials’ perceptions help them build hazard and disaster plans. As Burton et al (1992) emphasize throughout their work, our decisions in hazards are based on our personal perceptions. Several factors feed into perception, such as cultural inclinations (Palm, 1998), material wealth, religious views, family, gender, and education (Burton et al, 1992). In addition, people tend to draw a great deal of their identity from the size of the places they live. It stands to reason then, that they define their vulnerabilities from where they live as well. As a small piece of hazards literature attests, the role of city size in perception of risk is important.

Despite being a fundamental difference between cities, the role of city size has fostered very little discussion in the hazards literature. Cities and urban areas, no matter the disparity in size between them, are seemingly considered by many as being interchangeable in hazards study (Mitchell, 1999; Glaeser and Shapiro, 2002; Uitto,
1998). I believe this lack of consideration for urban scale creates a great opportunity for researchers to evaluate how the scale of an urban area affects hazards planning and perception of hazard vulnerability. While there are similarities between cities of differing sizes, a “one-size-fits all” approach may be inappropriate. Indeed, the size of an urban area may have an effect on any sort of hazard planning and the perception of hazards within the government and in the public.

There is a bias in urban hazards literature to focus on the “megacity,” a huge and sprawling urban complex (Mitchell, 1998). However, not all urban form occurs at such an extraordinary magnitude. An “urban center” can be a small town surrounded by developments, or a city of barely fifty thousand instead of the million-plus-person metropolis that commonly garner so much attention in modern hazard and disaster literature (Mitchell, 1999; Glaeser and Shapiro, 2002; Uitto, 1998). While the large city is always going to be subject to more discussion due to their great vulnerability and perhaps greater potential for loss, a smaller urban area is just as vulnerable as its larger counterparts (Cross, 2001). Kates (1994) briefly touches on the importance of scale in his research on climate change hazards. In his discussion of the role of the “local” in global warming, he contends that the local aspects of the issue are commonly overlooked for the big global picture, and that even the smallest places matter. In terms of hazards research, this is an important concept that seems to be forgotten as the United States fights a global war on terror and globalization has made natural hazards seem like a distant threat at best. Bugliarello (2005) comes a bit closer to the matter at hand, examining the way that urban areas are defined in his exploration of urban security in the United States. However, his
contention is that cities generally do not have the elements in place to deal with disastrous terrorist events, no matter their size. Here, there is a passing recognition of the importance of scale in terms of hazard response. Unfortunately, in hazards literature this is usually as far as the discussion goes. Gerber et al (2005) speculates that this is due to the intuitive nature of the role of urban scale in hazards and disaster planning. Larger cities will be more prepared due to greater resources. Cross (2001) believes the bias exists because megacities are considered to be “uniquely or excessively vulnerable to hazards.”

Another contribution comes from Glaeser and Shapiro (2002), where they contend that the size of an urban center may preclude the regrowth of areas affected by disasters, while discussing the likelihood of rebuilding downtown New York City in the wake of 11 September 2001. They assert that urban scale may preclude certain avenues of disaster recovery. Material and financial costs would be too much for businesses to establish themselves around the former site of the World Trade Center, fundamentally changing the once prime commercial land in the center of a thriving business district into something of an economic no-man’s land. In this case, urban scale precluded a response that may have followed in a smaller urban center.

Some of the most significant research on city size and hazard and disaster planning comes from Gerber et al’s (2005) survey of government officials from two hundred cities with populations greater than thirty thousand people. The officials were surveyed to determine the consistency of their perceptions of their vulnerability to terrorist attacks, with special attention paid to the different sizes of the cities and the type
of city official (whether elected or non-elected). The results found that the city officials became more concerned with terrorism vulnerability as the city size increased, and more of that city’s available resources were committed to terrorism mitigation as city size increased as well. It is here that the synergy of the three variables of this literature review comes together in near-perfect form. Scale of the city directly effects governmental perception of hazards, which then directly correlates with the measures taken to combat the hazard.

Another significant contribution comes from Cross (2001), who recognizes that smaller urban areas have far fewer resources than their larger counterparts, and the impact of a disaster may be felt more keenly by a higher percentage of the population settled there. These smaller areas are not given the same attention by researchers and government organizations, and are never really considered in a small city context. Rather, they are treated much like a larger city, which may lead to higher level considerations or assumptions that may be ill-suited to that city’s situation. In Cross’s conclusion, he warns of the danger of treating smaller areas with the same approach as a megacity.

In sum, not much has been written on the role of urban scale in relation to hazards planning. This neglect is likely due to either to a “megacity bias” inherent in urban hazards research, or simply due to the fact that a lot of the research that can be done on the issue is simply considered obvious and therefore does not warrant any further discussion. However, there is considerable interest and cause to discuss the role of urban scale, as Gerber et al (2005) demonstrated. Each city is distinctly different from others, and city size is perhaps one of the simplest determinants of response and perception of
hazard and disasters.

*The National Response Plan and the National Response Framework*

With the establishment of the Department of Homeland Security (DHS) after the attacks of 11 September 2001 and the requirements of the Homeland Security Presidential Directive 5, efforts were made to develop an “all-hazards” response plan that would apply to both natural and man-made events that take place within the United States. This National Response Plan, put into effect in 2004, is designed to be “a single, comprehensive approach to domestic incident management to prevent, prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies.” These “incidents” are disaster events that require government response. The NRP is built to function within a consistent framework, which in this case is the National Incident Management System, or NIMS. The NRP applies to all incidents which require a Federal response, in order to give multi-level response uniformity and the ability to draw on resources from all governmental (and non-governmental) organizations in the most efficient way possible. Included within the document are provisions for hazards and disasters of every type, a command structure to be adhered to during an incident, as well as several auxiliary apparatuses (such as Emergency Support Functions). The latest update of the NRP came in mid-2006 in response to lessons learned from the response to Hurricanes Rita and Katrina.
The NRP emphasizes that incidents should be handled at the lowest possible level of government. This commonly means the “local level,” which in the NRP is defined as the city/town/municipal and county governments. If the local level is overwhelmed, then the state is called in to assist with recovery. Once the state’s own resources are overwhelmed, the state governor may request federal support. At each jurisdictional level, the NRP assigns responsibility to various parties within the government. Of particular importance is the fact that the elected officials at the state and local levels are the ones given primarily responsibility, while at the federal level ultimate responsibility falls on the Secretary of DHS.

In 2007, DHS put forth the National Response Framework (NRF), a system which was designed to replace the National Response Plan. While in function similar to the NRP, the NRF takes into greater account the lessons learned during Katrina and Rita in 2005, and is therefore created to be considerably more flexible, scalable, and adaptable than its predecessor. Furthermore, the language of the NRF was changed substantially, emphasizing the national role to a greater degree and removing much of the “bureaucratic” language that permeated the NRP. Major aspects of the response have been better organized, changed to be more intuitive, and the overall language now serves to emphasize important points rather than obfuscate them. Thus, the NRF should be considerably easier to comprehend by local emergency planners and apply to their incident management systems. According to DHS, the NRF will go into effect on March 22, 2008. Therefore, this body of research was conducted in the period immediately before and after the activation of the NRF.
The State Emergency Management Agency: PEMA

In accordance with DHS standard, the Commonwealth of Pennsylvania maintains an office dedicated exclusively to handling disasters and hazards. This agency, the Pennsylvania Emergency Management Agency (PEMA), is a small executive agency which reports directly to the Governor of the Commonwealth. The major concern of the agency is to offer support to the county apparatus, which in turn is expected to offer the same support to boroughs, townships, and cities within its jurisdiction. Aspects of this support include grants for training, resources for mitigation and response, equipment loans, and emergency training. These aspects are also in addition to day-to-day information sharing between the state and local EMAs.

Under Pennsylvania law, each town, borough, city and township must maintain an emergency management agency with an appointed emergency management coordinator. These local actors are charged with utilizing the resources at their command in order to reduce vulnerability to various hazards and to respond to disaster events. Municipal-level training is received through the county EMA. The bulk of this training is provided free of charge.

On its website, PEMA identifies the various hazards it believes are the greatest threat to the Commonwealth. While some of the identified hazards are not surprising when compared to Cutter’s 2001 assessment, others are more rooted in post-9/11
concerns and Pennsylvania’s own history of disasters rather than simple quantitative studies:

“The 11 hazards posing the greatest dangers that have occurred most frequently in the Commonwealth are: (1) transportation accidents, (2) floods, (3) fires, (4) winter storms, (5) tropical storms, tornadoes and windstorms, (6) hazardous material accidents, (7) geological incidents (earthquakes, landslides and subsidence), (8) nuclear facility accidents, (9) dam failures, (10) terrorism and (11) riots.”

(PEMA, 2005)

Compared to Cutter’s assessment, some of the concerns are nearly identical (floods, hazardous material accidents) while others are not shared (riots and terrorism). However, PEMA believe them all to be important hazards for which to prepare. In order to prepare, PEMA echoes the tenets of the NRP in that all levels of government must be involved, as well as outside organizations and private citizens, in order to develop mitigation measures and response plans. Still, PEMA emphasizes that it is the county and municipal level governments who are most responsible for the well-being of their citizens. Therefore, despite the opinions and remarks of city officials in the wake of Hurricanes Hugo and Katrina, the local government is considered to be the most important aspect of a disaster response.
III. Methodology

From the review of the literature, one can see that the hazards and disaster research communities as well as the national government agree that the best approach to a hazard or disaster starts with local response, with “escalation” of the issue taking the form of additional resources brought to bear by both state and national entities. This is reflected in both the NRP and its successor the NRF, and is therefore the expected modus operandi of emergency management at all levels of government. However, as Katrina
demonstrated, even the best laid plans may come unraveled when disaster strikes. The reasons for such a breakdown are a thousand fold, from miscommunication to simply not anticipating the extent (or even the existence) of the hazard that brought on the disaster. This research asks two questions: (1) how does the size of the city influence disaster preparedness and planning, and (2) do the opinions and perceptions of local emergency managers regarding the state and federal actors change between the differing urban scales?

This study’s design consists of case studies of three cities in western Pennsylvania: Butler, Erie, and Pittsburgh. Each case study discusses various aspects of hazard and disaster planning in each of these localities. In addition to these aspects, interviews with local emergency planners were sought regarding the natural response doctrine (both the NRP and NRF) and the challenges their particular city faces in creating hazard and disaster plans.

Each of the cities chosen for this study serve as rough increments of population within the western Pennsylvanian region, and none of them could be considered a “megacity” (Cross, 2004). Since they are all located in the same state and the same PEMA region (which is under the jurisdiction of the Indiana, PA field office), they serve as an excellent sample for this research. With little administrative difference at higher jurisdictional levels, as well as a natural environment which poses essentially the same hazards to each of three cities, most of the variation in planning would likely occur at the local level and due to considerations that would directly be affected by the city size and the perception of officials.
**Government Records**

Government records shall serve as the foundation of this study, due to their objective and static nature. My survey shall include the following documents: ordinances in force at this time of the research, zoning ordinances on file regarding specific hazards within the community, and hazard and disaster response plans. While there is a chance that these records may be inaccurate, it is unlikely. Due to the PEMA structure using the county-level apparatus to inform and prepare the municipal level emergency planners, pertinent county measures and efforts that have a bearing on city hazard and disaster planning will also be considered.

**Government Interviews**

Perhaps the most informative element of this research was the interviews that I have conducted with government officials of the three cities. The choice of government officials was restricted to those who are in positions to direct policy on hazards, in this case most of these subjects were the emergency managers at the local level designated to satisfy the requirements of PEMA. These positions may very well be in conjunction with other duties and responsibilities, depending on the size of the urban area and the structure of its administrative body. I focused on officials that were in office at the city and the county level during the research period, as they were in a position to address and discuss
past and present hazards policy, as well as have an opinion on where the policy should head going forward.

Additionally, I interviewed people in direct control of the first response apparatus for each city (police, fire fighters, and emergency medical services), as they would likely be more familiar with the hazard and disaster plans of the city governments than their elected counterparts (Gerber et al, 2005). However, in many cases these people are also the ones who are designated as the city emergency managers in addition to their other responsibilities and are therefore one and the same. While the interview included some simple binary elements (“yes or no” questions), a majority of the questions were open-ended and allowed for the managers to interject some of their personal experiences and motivations. As such, this research essentially employs the “corporate interview” structure promoted by Shoenberger in economic geography. The purpose, as she states, is to “understand the firm’s behavior in light of the firm’s own history and circumstances” (Shoenberger, 1991). While this was originally intended for interviews of people within a corporate hierarchy, the similarities in structure between corporations and government allow for it to be easily adapted to the needs of this study.

The corporate interview is uniquely suited to organizations with a well-defined hierarchy, which is true of both city and county government. Through the interview, I probed the thoughts and motivations of government officials regarding hazards legislation regarding their city. I was able to determine how vulnerable they perceive their city to various hazards as an individual in a position of power and with a greater awareness of the threats that pose the greatest risks to the city. Also, this interview
structure served to understand the organizational and individual thinking at work behind the decisions that are made within government about hazards and disasters in each of the three urban areas. It will also serve as a means to find out how these government officials view the ideas of hazard mitigation and disaster preparedness. All told, the interviews augmented the information gleaned from the government documents, serving as an example of the environment that develops and enforces laws and ordinances regarding hazards.

The one concern there is about any sort of interview is the validity and honesty of the response to the question. This is particularly true of open-ended questions, where there is a possibility for confusion on the part of the interviewee or desire to skirt the issue at hand. For this reason, the questions must be simple enough to be clearly understood and correctly interpreted. Additionally, the interviewer must be able to assess the answers given by the officials in a critical and professional manner. The locus of control in the interview can be easily lost in open-ended interviews, and especially so when dealing with people who make their living out in the public arena (Shoenberger, 1991). However, with carefully selected questions and critical listening, I believe these issues have been circumvented.

**Analysis**

After all data were collected in each of the three case studies, I analyzed all three cases individually in order to prevent any assumptions or descriptions from one case
unnecessarily influencing the interpretation of another. For each city, I considered both anthropogenic hazards, such as terrorism and chemical spills, and natural hazards, such as floods and snowstorms. I used both the quantitative and qualitative data derived from the government document review to determine government activity regarding hazards policy.

I derived common themes throughout the interviews conducted with that area’s government officials regarding hazards. I used the recurrent themes in the interviews and the information gleaned from the government records to develop a description of how the government approaches hazards, and in doing so develop an understanding of the “how and why” hazards-related issues are pursued by the government in the way they are.

By using cross-case analysis, I determined both common and unique themes that appear across the various cases, and found thematic patterns inherent between the cases. Certain differences found within the records and interviews were then singled out and explored as a function of city size, particularly ones that show a progression from one end of the scale to the other (for example, an occurrence that increases in frequency from the smallest scale to the largest, or vice versa.) Through this sort of categorical aggregation, elements and meanings relevant to the purpose of this study could emerge (Creswell, 1998).
IV. Case Studies

*Emergency Operation Plan Overview*

PEMA has developed a framework based on the principles of the NIMS and its corresponding plan (then the NRP, now the NRF) that it encourages all local entities to utilize in order to streamline disaster response. A template of this plan is available on their website (http://www.pema.state.pa.us/pema/lib/pema/EOP.pdf), along with a few other supplementary documents in order to effectively adapt it to the needs of the local actor (municipality or county).

The plan’s structure has three parts. The first, the Basic Plan, is the primary document. The purpose of it is to outline the various vulnerabilities, hazards, and responsibilities during a disaster situation. Commonly included with it are annexes which describe one of the key elements of the NIMS: the Emergency Support Functions (ESF). The ESF is a modular component designed to coordinate and organize different aspects of the disaster response and assign various responsibilities to certain actors, usually bringing several smaller elements to the response under the command of a primary agency. Responsibilities within the ESF are then shared or delegated to secondary agencies, which can either be governmental or in some cases non-governmental. The PEMA Planning Guide states that not all of the ESFs set forward by their template need be activated during an emergency and in smaller areas could be removed if manpower or
need was insufficient. It further emphasizes that local governments should tailor the ESF configuration to suit their needs.

The second part of the plan is a series of Functional Checklists, which are commonly divided to roles based on the layout of the plan’s ESFs. These checklists are essentially lists of tasks that must be addressed during a disaster response by the personnel assigned to the ESF, and are commonly organized into smaller subgroups which pertain to a particular aspect of their responsibilities. The third part of the plan is the Notification and Resource Manual, or NARM. The NARM is a listing of critical and special facilities, an equipment resource listing, as well as a listing of the contact information critical personnel and particularly vulnerable individuals.

Due to the sensitive nature of the information contained within the NARM and Functional Checklists, these two documents are not subject to the Pennsylvania Right to Know Law. The Basic Plan and most of its Annexes, however, are available for review by the public. Therefore, this study will only address the Basic Plan and its annexes, as well as other documents considered public record.
Butler County is a predominantly rural county found in western Pennsylvania. Home to 170,000 residents, the county consists of 795 square miles of land. However, despite its numerous tracts of farmland and many townships, a single city has taken root within a river valley. This city, the City of Butler, is the county seat and populated by over 15,000 people.

Butler is racially homogenous, with over ninety-eight percent of its population being white. The cityscape is dominated by small businesses and residences, some of
which evoke images from its past as a significant contributor in the Pittsburgh steel era. Where Butler was once a fairly prosperous community given its proximity to Pittsburgh (Butler stands roughly fifty miles north of it), it has fallen on hard times since the 1970s. Nearly one-fifth of the city’s population lives below the poverty line, and the city’s per capita income is a meager $16,000 compared to the state’s average of AVERAGE.

With the glory days of steel and industry long gone, the city now moves to attract tourism and exploit the strength of the county’s health system as well as its natural splendor to bring in money into the county coffers. These changes are readily apparent just by walking down the main street of the city: family-run businesses that have been there since the turn of the twentieth century, such as the local meat seller, are now neighbors to trendy coffee shops and booksellers.

The climate of the region is consistent with the state at large: warm, humid summers along with cold, snowy winters. The terrain surrounding the city is decidedly hilly, though the city itself is located within a rather flat valley traversed by several small creeks and rivers. The city has no broadcast television stations serving it, with the majority of the regional broadcasts the city receives coming from nearby Pittsburgh. A single newspaper, the Butler Eagle, serves the city as well as the entire county. Three radio stations from the area join with stations from Pittsburgh to comprise the media presence within the city.

**Emergency Operation Plan**
The City of Butler, mirroring what many smaller municipalities choose to do in light of their relatively small amount of emergency management funding, has adopted the Butler County emergency operation plan as its own. This measure basically means that in times of crisis that the plan and system in place for the county would be activated and executed at the municipal level using the same incident command system as the one prescribed by the county plan.

Its hazard vulnerability analysis, or HVA, departs from the expected formula and lists more than three hazards. Of the ones listed, four are natural occurrences (flooding, winter storms, tornadoes/severe storms, and ice jams). The other two hazards are man-made (material spills, vehicle accidents.) The plan enumerates nineteen Emergency Support Functions, four more than are put forward by the PEMA template and are expected by the NIMS standard. These additions include Donations Management, Animal Control, Debris Management, and Disaster Recovery. In addition, the Search and Rescue ESF is split into two unique subsections. One is Urban Search and Rescue, which is the standard found in the NIMS and the PEMA template. The other half is Wilderness Search and Rescue, which is assigned primary and secondary agencies that are not assigned to its counterpart.

Beyond that addition, the bulk of the Butler County basic EOP is essentially a mirror of the PEMA Basic Plan Template available on the agency’s website. As such, it does indeed meet all (and in some cases exceeds) the requirements of both the federal and state agencies, and is NIMS complaint.
City Ordinances and Zoning

The City of Butler has one provision on record dealing with hazardous areas within the city limits. This ordinance, found within the zoning regulations, deals with the various floodplain districts in the city proper. It identifies several areas that are “within or adjacent to streams or drainageways and identified in the City of Butler ‘Flood Insurance Study’ prepared by the Federal Emergency Management Agency.” For these areas, applications for building permits are placed under increased scrutiny and require professional investigation prior to a permit being granted. Furthermore, certain uses in these areas are forbidden.

The Floodway District, as defined by the Flood Insurance Study, is more stringent than the other designations. If an area is deemed to be part of the Floodway District, no actual structures can be built upon it. The permitted uses as outlined in the ordinance are “(a) Agricultural and horticultural activities carried on out-of-doors. / (b) Outdoor recreational uses. / (c) Accessory residential uses such as yard areas, gardens and parking areas with previous surfaces. / (d) Accessory commercial or industrial uses, such as yard areas and parking or loading areas with previous surfaces.” (City of Butler Code)

Interviews

For this case study I interviewed Frank Matis, the Emergency Management Coordinator for Butler County, and Larry Christy, the City of Butler’s Fire Chief and Emergency Management Coordinator. Both Matis and Christy started their careers as
firefighters, and over the years worked their way up into administrative positions. Additionally, both have been involved with emergency response for well over thirty years. As such, the pair brings a wealth of practical experience to their positions.

Frank Matis has served as the county director of emergency services for over eleven years, and prior to that served as the deputy director. Like others in his position, his duties as EMC involve coordinating the department’s day-to-day activities in addition to his duties directly related to hazards and disasters (such as planning and mitigation). He also serves as the county’s representative to the Region Thirteen Counterterrorism Task Force. The department itself was rather small, employing five administrative staff as well as twenty-eight operators for the county’s 911 service. In a disaster event, only the five administrative staffers fill a direct role in the Emergency Support Function apparatus. The rest of the functions are filled by volunteers from other county government agencies.

During the interview, Mr. Matis identified flooding and transportation accidents involving hazardous materials as some of the hazard challenges facing the City of Butler. When asked if he felt that the presence of the city within Butler County put the population at greater risk for certain hazards, he answered to the negative. The greatest threat to the city (and county) in his estimation were events involving the city’s various industries housing hazardous substances and accidents involving vehicles transporting such substances. When asked about the possibility of terrorism in the city, Mr. Matis believed that the city was at very low risk, as it lacked sufficient “critical infrastructure” to rate as a possible target and that a city such as Pittsburgh would be a greater risk.
However, he did profess that this view only covered attacks by foreign entities, and that the possibility of a locally-based attack was always somewhere out there. He used an example of a disgruntled citizen driving a truck filled with chemicals into the courthouse due to some perceived slight.

When we discussed the plan itself, Mr. Matis stated that the plan was reviewed annually for possible changes, but it had not been updated in some time. In addition to this review, it was activated for full-scale exercises on the county level at least once a year. In addition to this activation, the county’s department also performs biannual drills to test its readiness in case of a disaster involving the Beaver Valley Nuclear Power Plant (situated in adjacent Beaver County).

According to Mr. Matis, he has weekly contact with personnel from the PEMA regional office out of Indiana County, but he felt that the main office in Harrisburg was perhaps “a little detached” from the local level. When asked to clarify what he meant by this, Mr. Matis stated that the people higher-up in the PEMA hierarchy are not understanding of the issues that crop up at the local level, which at times leads to problems in communicating wants and needs to them. However, during times of disaster, Mr. Matis felt that PEMA’s handling of their end of the response and presence at the scene was “adequate.”

When asked about his opinion of the Department of Homeland Security, Mr. Matis made it no secret that he felt that the reshuffling of FEMA under the auspices of DHS was a bad idea. He felt that much of the focus at the federal level has moved to dealing with terrorism, and has moved away from dealing with natural hazards to such a
point as to be detrimental to the efforts of local actors. While the administrative change
did not specifically change the focus of FEMA, he felt that the message was nonetheless
sent to the public and local emergency agencies about what the priority of the agency
would be now.

He also voiced his concern regarding some of the expectations of the local level
actors under the National Incident Management System and the National Response
Framework. For one, he was frustrated at the idea that his department was charged with
the task of becoming “NIMS police.” That is, ensuring that all the municipalities in
Butler County were compliant with the NIMS. In part, this stems from the fact that to Mr.
Matis that some of the stipulations of the NIMS are unrealistic in some cases. The
example he gives is of a municipality within the county that has less than one hundred
residents. Under NIMS, such a place must have an emergency services department and its
own emergency management coordinator. Logistically, the establishment of such a
department would likely be more trouble than it is worth. While Mr. Matis says that he
understands the reasoning behind this requirement, he thinks that it is smaller
municipalities should not be made to “jump through hoops.”

Mr. Matis also takes exception to the fact that there is no actual way to assure that
a municipality is “ready” under the NIMS. He calls the goal of total NIMS preparedness
“a moving target,” in that it changes constantly. Other federal expectations also trouble
him. He summed up this point by stating that while it was hard to “put a finger on it,” it
felt like his department was being asked to take on more and more responsibility without
a budget or government assistance to help his department tackle these additional duties.
There was grant money out there, he realized, but what was available to him had too many requirements attached to them to make them worthy of pursuing. For example, some grants had to be used to combat specific threats (such as terrorism), or only for certain uses (purchasing equipment) but could not be used in any other application. Mr. Matis wished that the government would buck this trend and instead return to the more goal-oriented funding, which would award local actors no-strings-attached funding for reaching various preparedness milestones.

Other grants available from higher level sources gave too little money to be of any interest or use to the department. The example he gave came when I asked about the county’s attempts to develop a Community Emergency Response Team (CERT), which Homeland Security advocates. While no CERT existed in the county, there had been interest in some Butler County communities about creating one. However, when the department researched the possibility, they came to the conclusion that they would need to hire on additional help to get the program off the ground. The grants that were available, however, fell well short of subsidizing another employee and the idea had to be scrapped.

Mr. Matis also felt that the paperwork required by federal agencies during a disaster was “ridiculous” for such a situation and should be decreased significantly, especially in regards to damaged government-operated buildings. He made light of the fact that while a homeowner in a disaster zone need only pick up a phone and call a FEMA hotline to get assistance in rebuilding, a local government agency would have to cut through miles of damage reports and assessments for the same. Despite these
shortcomings, he did feel that the federal level had been of help in the past (such as the aforementioned no-strings grants and equipment given to the county and City of Butler in the wake of 9/11) and that their assistance during the last disaster event was decent (if a week late.) All told, Mr. Matis rated the federal government’s performance in assisting the city and county as “so-so.”

Locally, Mr. Matis feels that his working relationship with the EMC of the city is “excellent” as it is with all of the municipal EMCs. He is also, for the most part, satisfied with the level of funding he gets from the county government despite the fact that the level of funding has not increased since 9/11 and Katrina. While he admits that he would always like to have more money for his department, he understands that there is only so much to go around and that “everyone is always asking the county for money.” Despite this, he does believe that “worthy projects” do receive the funding they are due without too much trouble.

However, he does admit some concern regarding the local elected officials. He feels that they are not aware of their importance in preparing and responding to a disaster, and are willfully ignorant of their culpability in this regard. In sum, he feels that many officials are complacent and assured that a bad situation will not arise while they are in office. He hopes that this trend will change and that elected officials will become more involved, but he did not seem optimistic that it would happen.

Another concern about the City of Butler was the readiness of the local population. He felt that people in general are content to “let the government bail them out” in a disaster event and are not as prepared for the worst as they were fifty years ago.
Therefore, it is now the obligation of the government to put forth a greater effort to protect people who should be able to fend for themselves during a disaster situation. Finally, a surprising answer came when I asked him about his experience and opinions on media involvement during a disaster event. Mr. Matis claimed that he was happy with the local newspaper and the county’s radio stations, and that they did an excellent job communicating information to the public. However, their department has had very negative experiences with nearby Pittsburgh’s news media.

When speaking about it, one gets a sense that he regarded them as a negative factor in a disaster response, and that they tended to take a turn for the “sensational” when they traveled to cover news in Butler County. He gave the example of a strange green cloud that had appeared over the southern part of the county a few years ago, causing alarm in the various townships within that area. Several Pittsburgh news stations reported on the cloud, discussing the various bad outcomes that it could have if it turned out to be constituted of chlorine. These reports further stoked the fires of worry and panic throughout the county. In the end, when the cloud turned out to be harmless and no traces of harmful chemicals were found, the department sent the information out to the various news outlets that were covering it. While the newspaper and local radio stations were quick to disperse the information, the Pittsburgh stations quickly dropped the story and did not do enough, in his estimation, to get the information to the people. As such, the department was still wracked with calls from panicked citizens who wanted to hear the latest updates on the situation.
The City of Butler’s Fire Chief Larry Christy came to his position in much the same way as Mr. Matis. Presiding over the county’s only career fire department, Mr. Christy came up through the ranks of the department to his current position and has been Chief for seven years. He ranked the city’s greatest threats to be mainly natural, such as flooding or severe storms. While he does hold the title as the city’s EMC, the majority of his concern seemed to lay with fire prevention and fighting.

While he was satisfied for the most part with the hazard prevention measures in place in Butler, he did feel that the city would benefit from greater flood protections and that there was always room to improve the plans in place. In so far as drilling for disaster, he participates in sit-down exercises called “tabletops” with EMCs from various other municipalities in the county. During these exercises, they would tend to go through the steps of the response in a predetermined disaster scenario and work it out on paper. He believes that the greatest benefit of these exercises was becoming familiar with the other parties active in the response, which he believed was an important part of ensuring a proper response rather than “meeting for the first time at the scene.”

In a departure from Mr. Matis’ sentiment, Mr. Christy felt that the citizenry of Butler would be capable of handling their personal situations in a disaster for an extended period of time (for at least twenty-four hours in his estimation) through use of stored food and other items that the Fire Department advocates.

Mr. Christy also admits that “money is always an issue,” and that his department may lose out on some funds to more visible local projects. However, he was confident that the city government was keeping his department well-funded.
As we discussed PEMA, Mr. Christy seemed assured of his department’s ability to handle most situations even in a dire disaster (“we will own the incident” was his wording) and his department had not pursued any funding opportunities available through PEMA. However, he did seem to believe that the thresholds for a disaster declaration should be lowered somewhat, and like Mr. Matis believed that the paperwork could get out of hand rather quickly as higher levels of government intervened. He used the example of state-owned pumps, which in the last declared disaster had to be exhaustively monitored and all users logged into a book. “When you’re flying on the go,” Mr. Christy said, “it needs to be more streamlined.” He also was not satisfied with his communication with PEMA, wishing for greater face time with them in order to develop a working relationship outside a declared disaster and gets to know “who the major players are.” He also wished that they would bring “some workshops into the county level” and generally just have more contact with his department. Despite these concerns and foibles, he was satisfied with their assistance on the ground during the last major disaster.

For the federal system, Mr. Christy was fairly satisfied with their response in the last major disaster. However, he did feel that the National Response Plan needed to be streamlined and made simpler to use. When asked if since 9/11 or Katrina the national apparatus had improved and become more responsive to local needs, he felt that it had indeed improved. He added that while it was improving, there was still a lot of work to be done with the system at large, and that it was all “still a work in progress.”
Erie

Erie County is located in the extreme northwestern portion of Pennsylvania and is comprised of a land area of roughly 800 square miles and 42 miles of Lake Erie shoreline. The county borders two states: New York to the east and Ohio to the west; Erie County also borders Canada to the north in Lake Erie. According to the 2000 Census of the United States, the county’s population stands at 265,978 people. A sizeable portion of the county is rural, with smaller parts of forested area and agricultural land. The smallest portion, one hundred and six square miles or a mere thirteen percent, is classified as urban. Roughly a fifth of this urban land is found within the city of Erie.

The City of Erie sits in the northern reach of the county, along the Lake Erie coast facing Canada. To the city’s south is Interstate 90, a major national automobile route that
crosses the whole of the northern United States. Also in the south is a natural drainage divide, between water north flowing into Lake Erie (which then carries the water to the St. Lawrence River and then to the Atlantic Ocean) and water flowing into the Allegheny and Ohio Rivers. The geology surrounding the city and county is predominantly glacial in nature, with till and drift overlaying sedimentary bedrock.

Situated in the Lake Erie snow belt, Erie experiences cold, snowy winters that bring roughly eighty-eight inches of snow into the city on average. Not surprisingly, blizzards and other related hazards are commonplace, and are expected to occur at least once during each season. In addition to harsh winters, the area also experiences hot, humid weather during the summer months. As such, during these times it has experienced severe storm events, bringing with them the potential for tornado formation. While the city’s geographic location just north of a drainage divide does offer it some protection from flooding from these storms and other sources, there have been several instances in recent history where it has contended with significant flooding events (PEMA). Another hazard with historical precedent is drought, with significant events occurring three times since 1974. (PEMA)

The city itself covers twenty-two square miles of land, with an additional six square miles of water being considered part of the city’s domain. Erie’s streets are laid out in a predominantly grid-based pattern. The built environment of the city includes small high-rise buildings (none are above fourteen stories in height), single family housing units, commercial office space, and other structures such as the city’s iconic Bicentennial Tower. Also found in the city are old factories and storehouses, remnants of
the city’s Rust Belt legacy as a major railroad and water-based shipping hub. While some of these old industrial hulks stand unused, others have been reclaimed and put to other uses as part of an attempt to revitalize the city’s economy, which had fallen on hard times in the mid-twentieth century.

As of the 2000 census, the city of Erie’s population was 103,717, making it the fourth largest city in the Commonwealth of Pennsylvania. The population is predominantly white non-Hispanic, with fifteen percent of its population being comprised of African-Americans and four percent being Hispanic. Despite this seeming lack of diversity, Erie does have a few ethnic enclaves, such as “Little Italy” and strongly Hispanic communities that communicate primarily in Spanish. Furthermore, international refugees have been relocated to the city by Erie organizations, bringing ever more diversity to the city.

Erie is also home to a small-market media system. Most of the major American television networks have stations located in and around the city. In addition, numerous AM and FM radio stations are located in Erie, as well as the newspaper Erie Times-News. Certain areas of the city receive broadcast signals from other nearby regions (such as Cleveland and Pittsburgh) as well as broadcasts from nearby Ontario, Canada.
Emergency Operation Plan

Like Butler, the city of Erie does not have a city-wide emergency operation plan. Rather, it adopted the county-wide EOP as its own. While this plan cannot hope to be as specific as it could be in regard to the microscale of the city, which might include neighborhood specific provisions or responses to city-specific hazards, the Erie County plan does satisfy, and in some places exceeds, the state and federal requirements of an emergency operations plan.

A great deal of the language contained within the Basic Plan of the county parallels that found in the National Incident Management System documentation, as well as mirroring some necessary passages found in the PEMA Basic Plan template. The situation and assumptions section, which echoes the section provided in the PEMA template, lists the key vulnerabilities of the county as being floods, winter storms, and wind phenomena. Much of the documentation developed for the basic plan also echoes the basis of the NIMS: the California-developed Incident Command System. Organizational hierarchy is firmly established in the document (elaborate), leaving no question about the nuances of the chain of command in a disaster event.

Where the Erie plan diverges from the set standard is in its development of the various federal-mandated Emergency Support Functions (ESFs). In addition to the ones developed and expected under the National Response Plan, the county also developed several other Emergency Support Functions to augment and streamline their response. The original ESFs are disaster recovery, animal control, debris management, and
donations management. The Erie ESF functions also include a Public Information ESF as a primary function, where in the NIMS outline it is a secondary function under the External Affairs ESF.

These unique ESFs are, in some cases developed in order to address issues that are critical in Erie County but are not necessarily a concern in some other communities. The best example of this would be animal control, which is of great importance in an area that has substantial tracts of rural land (and the farming that tends to go along with it). However, this function can also be utilized within the city limits as well, in order to rescue and care for pets that may have been left behind by hastily evacuated owners.

Debris management in the wake of a destructive disaster event, while rather important, is never really discussed within the NIMS. The leader of this function and his subordinates are charged with overseeing the process and coordinating various companies and contractors brought in to assist with the debris removal and disposal. The disaster recovery function is much the same, with a manager brought in to coordinate reconstruction and use of resources from the state and federal levels.

Perhaps the most interesting addition to the traditional ESFs is the donations management function, which addresses logistical handling and record keeping of donated items and money in the wake of a disaster event. While the national system might neglect it or relegate it to a secondary concern, the outpouring of assistance from the nation can be its own problem during the disaster response. Items such as diapers and clothing may end up waterlogged and ultimately unusable after being left at the mercy of the elements too long. In these cases, critical resources needed to establish a sense of normalcy and the
feeling of “business as usual” are destroyed and must be replaced at greater cost. This function seeks to coordinate all donation-oriented agencies under the control of one manager in order to protect, house, and ultimately distribute the items to those who need them. The spin-off Public Information ESF reflects a need for greater focus on media interaction during a disaster response. Instead of having it housed under the auspices of the NIMS-recommended “External Affairs” catch-all branch, it is given much more depth and breadth within the Erie EOP.

City Ordinances and Zoning

The city of Erie has very few ordinances related to hazard-specific issues. The key one that addresses an issue that was found in Erie’s Hazard Vulnerability Analysis (HVA) was an ordinance dealing with winter storms. Found within the transportation subheading of the city ordinance document, the ordinance essentially outlined provisions made for road clearing in the event of a massive snow event. It discusses the use of streets for parking in such an event. In the three cities surveyed in this study, this was the only ordinance of this type on record.

In terms of city zoning, there is one subset of the various zoning designations that directly deals with the nearby lake. This “Waterfront” designation, though seemingly designed solely to maximize the city’s exploitation of the precious little coastal land within city limits, is also used to establish basic mitigation measures to be used by buildings inhabiting the area. There is no direct mention of the reduction of hazards in the
language of the ordinance, but every use placed under the “Waterfront” designation was considered to be conditional. That is, there was a greater scrutiny and increased public participation in the development of the city’s waterfront area that may encourage sound planning in order to address a flooding hazard. However, under section 306 (which outlines the requirements of lakeside development) there are no hazard-specific guidelines for construction.

**Interviews**

For this case study, I interviewed Dale Robinson, EMC of the county of Erie and director of its emergency services department, and Bruce Eicher, Assistant Chief of the Erie Fire Department and the EMC of the City of Erie. Unlike Mr. Matis and Mr. Christy, Mr. Robinson did not come up through the ranks of the local fire department. He attended college as a political science major, and came into the emergency services department via an internship. Mr. Eicher, however, came up through the ranks of the fire department much like his peers in Butler.

Dale Robinson is the relatively new director of Erie County’s Emergency Services department, having only been on the job for three years, prior to which he was the department’s deputy director. He oversees the day-to-day activities of the county’s 9-1-1 center, in addition to his duties as the county’s emergency management coordinator. When asked about the challenges that he faces as an EMC with the fourth-largest city in Pennsylvania within his jurisdiction, he recognizes that he does indeed face many more
problems. However, these bigger problems are offset by better resources that are made available through the larger tax base. These greater resources are then able to be plied to the benefit of the rest of the county, which has many small municipalities would otherwise not have access to some of the equipment prevalent in the City of Erie. This situation sometimes proves to be a double-edged sword, it seems, as the close working relationship between the county and city seem to cause some consternation with the other municipalities in the county.

When asked about the threats that face the City of Erie in particular, Mr. Robinson first mentioned the possibility of terrorism. However, in his experience, most of the hazards that face the city and county are natural. During the interview, he mentioned snow and ice storms, as well as severe wind to be the top concerns of his department.

When asked about the risk of terrorist attack to the city, Mr. Robinson believed that Erie was not at great risk from foreign entities, but that “homegrown” terrorism was far more likely. Erie itself had been afflicted by several bombings of car dealerships carried out by the environmentalist group Earth Liberation Front (ELF). Therefore, Erie was no stranger to terrorist incidents and was prepared for them for the most part. Again, however, the belief was that larger cities were probably at greater risk. Although, Mr. Robinson mused on the possibility that terrorism would move away from striking cities and move to large public places in more rural areas (such as shopping malls in the future).
When asked about drills and exercises, Mr. Robinson said that the county department actively “quizzed” its municipalities on their readiness, designing live and tabletop exercises to tax their capabilities. When designing these, he emphasized that it was very important to “design it to fit” the municipality. Not only did it need to tax the system in place there, but it also had to be something that the local agencies could see happening in their community and therefore be able to get invested in the scenario. He gave the example of a small municipality in Erie County. If they were tasked with responding to an earthquake, he said, they would not be able to work through the scenario as effectively. However, if they same municipality is given the scenario of a truck crashing on their main street with hazardous materials in tow, it is easier for them to get into it since it is something that can happen in their estimation. Further expounding on that example, Mr. Robinson said that such a scenario would do little to push the City of Erie’s capacity for handling a disaster, so the city would likely be tasked with a larger, more difficult scenario such as a train derailment.

Another benefit of this “quizzing” in his opinion was getting the community at large invested in the process of making their municipality safe. Going back to discussing the small municipalities he had recently visited, many had become interested in starting up CERT programs in their community, as well as getting involved in learning about the response process at large. The other added benefit was to prepare newer personnel for the worst. In his experience, new municipal fire chiefs took many things for granted regarding the response and what the community would do in the wake of a disaster. “When the old ones retire,” Mr. Robinson said, “they can’t just put all of their knowledge
out of here [he points to his head] and put it on a jump drive and hand it to the new guy. You end up losing that experience.”

Mr. Robinson was very satisfied with his experiences with the City’s EMC Mr. Eicher, saying that they were both “on the same page” when it came to their efforts to make the city and county safer. He states that one of the incidental benefits of the strong relationship with Mr. Eicher is that he feels confident that no matter what “that half of the county’s population is in good hands.” He is not quite so confident about the citizens themselves. While the county does inform people that they should be able to fend for themselves for seventy-two hours, his experience with people’s dependency on technology dims his hopes. In his words, “some of them would, some of them wouldn’t.”

Of greatest concern to him were the special needs populations and the urban poor, who he believes do not prepare because they simply do not have the time or means to prepare. Or worse, people might think that someone else would take care of them.

Mr. Robinson was fairly critical of the state and federal level agencies. He discusses the whirlwind of changes (he deems it a “rapid evolution”) to the federal system, especially the move from the NRP to NRF, as having caused PEMA to essentially sit back and wait for the situation to settle down before altering their own documentation to fit the changes. In sum, he believes that the whole situation since 9/11 and Katrina has been overwhelming for many, and accounts for a lot of the disparity of planning in the state. “They just end up throwing up their hands and saying ‘I’ll wait.’”

When asked about the training available through PEMA and FEMA, Mr. Robinson said that while the self-study certification assets found online were good, they simply were not
enough to prepare emergency managers for their jobs and should serve only as an
introduction to a classroom setting. On their own, they were simply not enough and had
“glaring omissions” in its courses. The example of a hole in the education that he
emphasizes is logistics handling. Very little education, he lamented, is available on how
to manage resources when they arrive to a disaster area despite several lessons on the
importance of good logistical administration. What is more, he adds, many lessons
learned in the field that could be used by other EMCs in similar situations have no way of
reaching them. He suggests that a means to share information would be an excellent
addition to the state system.

In terms of funding from the state and federal levels, he made no secret about his
feelings about the wasteful federal spending. Much of the stuff created by the federal
level are, he says, developed for the sake of the federal system. In the meantime, his
department sees very few benefits from these exercises. Though some of the things
developed on the higher levels are useful, most of the items handed down to the local
level are useless. Since 9/11, Mr. Robinson’s department has lost employees and has not
gained any additional funding. He also is critical of the other member counties of his
regional terrorist task force, who have used their position to deny his county needed
resources so they can fund their own projects.

In terms of funding, Mr. Robinson agrees with Mr. Matis’ assessment that there
are too many strings attached to the funding available. While providing grant money to
prepare for terrorism is nice, he says, he wonders why that money can not be used to
prepare for other hazards as well. He also feels that DHS more often than not ascribes
priorities to counties or its funding, and as such becomes in some cases too much trouble to pursue. “You won’t have a true all-hazards approach until the funding itself is all hazards.”

Despite his objections, he is pleased with the amount of contact he gets with both PEMA and FEMA/DHS. In regard the local level, he is convinced that he is losing money to more visible uses. He made light about the county’s library system, which has millions of dollars more worth of funding than his department. He says that a lot of it is rooted in politics, and that emergency management is forgotten until after the fact since the county is more concerned with funding its day-to-day operations. He realizes the importance of having to “sell” safety to the county executives, since its value is not readily observable.

When asked about the media in the city, Mr. Robinson expressed a good deal of satisfaction with the working relationship he had with them. One concern he had was a case where the media might get the information wrong or fail to relay it (“left it sitting on the fax machine”), because their department would draw the fire when people realized that the information wrong rather than the station itself. Another was due to its position as a small-market media area. Many young reporters come through the Erie system, and at least in a few cases they attempt to climb the media ladder to a better market by fabricating (or creating) a story that really does not exist during a disaster situation and causing problems during the response. This sort of behavior is rare, but it has occurred in the past and is easily sidestepped. All in all, Mr. Robinson judges them to be a “necessary evil.”
Mr. Robinson’s hopes for the future are to actually combine the city and county’s response apparatus into one emergency apparatus in order to streamline responses throughout the county. In addition, he wishes for better means of funding local emergency management agencies (rather than pushing the money through the regional task forces) as well as a smarter, more incremental implementation of new emergency management systems from the federal level.

Bruce Eicher is the Assistant Chief of the City of Erie’s Fire Department and the city’s EMC, promoted to the position in June 2007. He started his career as a firefighter in the late 1970’s, and has risen through the ranks to his current position. Mr. Eicher rates the hazards that threaten the city according to the county EOP, rating wind and ice storms as the chief concerns. He also, during the interview, referenced HAZMAT incidents and transport accidents as man-made hazards of great concern to him. While he mentioned WMDs as a concern, he did not know how much of an issue they really were in his case.

When asked about his department’s readiness, Mr. Eicher was very confident in the city’s readiness for disaster. While he does recognize the city’s need for some of the county’s resources, he felt that much of what the city faced could be handled by the city’s own resources. In times of disaster, much of the ESF personnel would be pulled from other city departments, and in some cases from the county if needed. This relationship allows Mr. Eicher to work closely with Mr. Robinson, and like Mr. Robinson’s assessment Mr. Eicher describes their relationship as “very good and very close.”
In terms of training for disasters, much of it is done in the form of interdepartmental exercises and tabletops. A live HAZMAT exercise is conducted annually with the cooperation of the county EMA. Mr. Eicher referred to these exercises are “part of the learning process” for the city’s first responders, and since the situations are very probable disasters it allows them to invest in the situation.

When asked about the possibility of the city being victim of a terrorist attack, Mr. Eicher said the possibility was always there, particularly during large public events or during visits by political figures. Beyond that, however, he felt that a city with a larger population would stand to be more at risk for a terrorist attack than Erie.

Unlike Mr. Robinson, Mr. Eicher is satisfied with the breadth of training programs offered by the state and federal levels though he yet to participate in any of them (at the time of this research he was still seeking his basic emergency management certification). When asked to put it into one word, Mr. Eicher deemed what was out there “sufficient.” Funding on the other hand, he shared the same views as Mr. Robinson in that it was available, but in some cases not enough or too troublesome to pursue because of the restrictions placed upon it.

In terms of contact with personnel from these levels, Mr. Eicher stated that he has contact from state and federal agencies quarterly. When asked if he believes that larger cities get more “hands-on” time from these agencies, he did admit that he felt that the level of contact is “unfair at times” but he believed it to be necessary. In his experience so far, the Assistant Chief states that the local elected officials have been very supportive of him and his goals, and believes that it will continue to be the
case. The political motivations that may crop up in the future do concern him a bit, but he is confident that these can be circumvented.

Much like the departments in Butler and Erie County, there has been no budget increase for the city’s emergency management arm since 9/11, but money has been more accessible since then for projects. When asked about the greatest obstacle to addressing hazards in the city was, Mr. Eicher said that probably the single greatest would be the lack of information regarding trucks carrying hazardous materials through the city. Since there is no way of knowing what exactly is coming through the city, it weakens the response to a spill involving one of these vehicles at the outset until there is information on what exactly the material is.

Mr. Eicher was not confident in the population’s ability to fend for themselves in the wake of a disaster. He believes that people tend to lack knowledge of how to prepare their households for a disaster situation. While the education is available, if people will not attend the classes there is not much to be done but to pick up the pieces afterward. In a departure from Mr. Robinson’s statement, the Assistant Chief believes there are no major vulnerable areas within the city. He also believes that the national apparatus is correctly focused on dealing with terrorism, and that they must continue to focus on it. When asked about where he would like to see emergency management in the coming years, Mr. Eicher wished for greater awareness in the community regarding the existence of hazards as well as more public education on them, as well as increased funding.
Allegheny County is nestled in the southwestern corner of the state of Pennsylvania. The county has a total area of seven hundred and forty-five square miles, with seven hundred and thirty of that being land and fifteen being water. The county shares a border with Butler County to the north. The defining features of the county are the three rivers: the Allegheny, the Monongahela and the Ohio. Though the western half of the state is predominantly rural, Allegheny County is defined as being urban due to the size and ancillary sprawl of the county’s seat, Pittsburgh.

The City of Pittsburgh is commonly given the origin point of the three rivers’ intersection (an area known as the Golden Triangle), but in reality its urban area
encompasses nearly the entire county and in some cases extends into neighboring counties. According to the United States Census, the city itself takes up roughly fifty-five square miles of the county’s territory. The river valley that the downtown area covers is flanked by steep slopes along its sides, which play host to several neighborhoods and activities. Due to its situation within the confluence of the three rivers, several bridges are used to move people and material in and out of the downtown area and surrounding points. The geology of the area is similar to the geology found in Butler County. The climate of the area is similar to the climate of both Erie and Butler, with cold, snowy winters and hot, humid summers. As such, it is similarly exposed to natural hazards such as severe summer and winter storms.

The population of the city proper is roughly three hundred fifty thousand, with over two million people inhabiting the metropolitan area. Found within the Pittsburgh city limits are several skyscrapers, a few old ethnic enclaves, major entertainment venues, museums, and several universities. Its economic heritage is much like the other two cities of this study, rooted in the twentieth century steel industry that defined the region. However, Pittsburgh has transitioned from its old Rust Belt identity to one fueled by world-class medical research and technology.

Commensurate with its size, Pittsburgh boasts the largest television market in western Pennsylvania with several broadcast channels. In addition to these, it also has numerous radio stations in and around the city limits, as well as two general circulation newspapers.
Emergency Operation Plan

Unlike its counterparts, the city of Pittsburgh does not adopt its county’s plan as its own. Rather, the city makes use of its own separate plan to combat its hazards. The Pittsburgh Emergency Operation Plan is much like the EOPs of Erie and Butler. Much of the structure follows the outline set forth by PEMA, and the sections are roughly the same. However, there are a few elements that make the Pittsburgh plan unique. First is the vulnerability section (here titled “City Hazard Vulnerability”). In the other two plans, the PEMA format was followed. That is, this section would simply make mention of the top hazards as they were outlined by the Hazard Vulnerability Analysis (HVA). Here, four other subheadings precede the HVA (which is found under its own heading), each a small explanation of the different threats that the city recognizes. The first two of these subheadings are simply explanations of various natural and human-made disasters the city might face based on history, examples being snowstorms and mine subsidence. The third and fourth ones however, “Enemy Attack and Resources Shortage”, are unlike anything found within the EOPs of the smaller two cities in this study. Consider the passage under the former subheading:

“While perhaps a less likely hazard, an enemy attack upon the United States could expose the City of Pittsburgh to the effects of conventional or mass destruction weapons, chemical, biological, radiological, nuclear, and explosive (CBRNE) agents, and paramilitary to include sabotage. The City of Pittsburgh has been designated as a risk area for such attack because potential target areas lie within or adjacent to City
boundaries. The City probably will attempt to host citizens who evacuate target areas.” (EOP, 2007)

Of the three plans reviewed here, this is the first and only mention of a harmful assault on any of them. The recognition of Pittsburgh’s importance and prominence within the region is important, which is likely why this part of the City Hazard Vulnerability section was conceived. While the focus of this subsection is likely terrorism, no distinction is made between it and a conventional military attack on the city.

The other unique aspect to this section, “Resources Shortage,” essentially discusses the possibility for the need to rationing and control of various resources “that bear a substantial relationship to the health, safety, and welfare of the citizenry” of the city. While it could be deemed a prudent item to mention in the EOPs of other cities, the enumeration of such a power is of great importance in a large city that demands such tremendous resources.

The HVA subsection that follows these four subsections takes the form of the one provided through the PEMA template. Here, the top three vulnerabilities are listed and include flooding, landslides, and winter storms. While flooding and winter storms seem to be of concern to most cities in western Pennsylvania, the inclusion of landslides in the HVA points to the unique aspects of Pittsburgh’s geography.

The presence of the three rivers that grant Pittsburgh its iconic and picturesque setting also brings with it three heavily incised river valleys. The downtown area itself is situated within the trough of the river valley, but many neighborhoods have developed in the surrounding steep hillsides. Of course, rapid development and heavy traffic tend to
take their toll on these already weak geological structures, and with the heavy rains that tend to visit the area it is only a matter of time before the land subsides.

Beyond these unique aspects, the Pittsburgh basic plan model follows the PEMA requirements and the bulk of its language rather closely. It assigns different departments and organizations to fifteen distinct Emergency Support Functions as primary and secondary entities, much in the same way it is done in Butler and Erie. The city’s incident specific annexes, which are referenced within the basic plan but are not provided, follow what is seen in the PEMA basic plan for the most parts. Included are radiological emergency response plans, plans for continuity of government, SARA plans (which deal with hazardous materials), high hazard dam plans, and plans for sensitive installations such as prisons and schools. The Regional Counterterrorism Task Force Plan is also listed.

The Pittsburgh plan also makes mention of some unique incident specific plans: “Terrorism” and “Evacuation.” Of course, the subject matter of these plans is rather simple to deduce though no further information is given. However, both of these are not seen in the Butler or Erie plans, and certainly not in the PEMA template. Since these plans do not need to be made available to the public, we can do little more than speculate what these specifically address.
City Ordinances and Zoning

Pittsburgh’s zoning ordinances are the only set of the three cities that actually has provisions exclusively related to hazards found within its text. Within chapter 906 of the city ordinance documentation, “special overlay districts” are defined and explained. Of the six overlay districts defined here, five of them deal directly with hazards present in the city. These are the FP-O (Floodplain-Overlay), the LS-O (Landslide-Overlay), the UM-O (Undermine-Overlay), the SS-O (Steep Slope-Overlay), and the SM-O (Stormwater Management-Overlay). These overlays are designed exclusively to address the various hazards and to ensure public safety by reducing the amount or type of development that is allowed to occur in these areas, or in some cases require additional investigation by experts before a building permit is issued. For the most part, however, these overlay districts only subject the people seeking to build on them to a greater amount of governmental regulation and do not directly forbid building in the designated areas.

Beyond these zoning ordinances, there is no mention in the remainder of Pittsburgh’s ordinances that addresses any of the hazards mentioned in the city’s Basic Emergency Operation Plan.
Interviews

For the city of Pittsburgh, I interviewed Robert Full, the EMC for Allegheny County. In addition to Mr. Full, I also interviewed the Deputy Director of the Pittsburgh Emergency Management Agency Raymond DeMichiei and Shelley Bartz, one of the agency’s program managers and planners.

Robert Full, in addition to being the Allegheny Counter EMC, is also the county’s Fire Marshall of ten years. Receiving his start as a firefighter in the city of Pittsburgh, he has been in the field of public safety for thirty-five years. Mr. Full, when asked about the hazards that the city of Pittsburgh faced, was forthright with that fact that terrorism was of some concern since the events of 9/11 considering Pittsburgh’s preeminence in the region and that preparing for it was a priority of his. On top of that, he was concerned with preparing the city and the county at large for other, more common hazards such as transportation accidents and windstorms.

Deeming his relationship with the city’s Emergency Management Agency to be “very strong,” he stated that he believed that the relationship benefited from the fact that the two organizations share the county’s EOC during a disaster response, a move made in the light of 9/11. “It was a good move on our part,” he said, “because there are no political boundaries in a disaster situation.” Prior to this move, he felt that there was a considerable gap between the two organizations that caused a great deal of miscommunication and confusion within the chain of command. He is satisfied with the way the relationship between the two has evolved.
Mr. Full’s opinions of his working relationship with the state and federal levels were similarly satisfactory, if a little more reserved. He felt that his relationship with the regional office of PEMA in Indiana County was very positive and that he had a good bit of contact with personnel from the office. He was also upbeat about his dealings with DHS/FEMA and that he felt that they have “done a remarkable job” in the wake of Katrina, though he admitted that he wished for a bit more interaction with these agencies. The Allegheny County emergency services apparatus, according to Mr. Full, performed six to ten emergency exercises a season, barring the outbreak of any real disaster events. A major weather exercise is conducted annually in March, as well as exercises involving the nuclear power plant in nearby Beaver County. The planners and other disaster response personnel in his department have taken part in the federally-mandated NIMS training, and most also take part in the PEMA quarterly training. His judgment of these programs was mixed. While he did appreciate some aspects of it, he felt that there was much that was missing in these classes regarding the recovery phase in a disaster. In his estimation, “The hardest part for us is figuring out what happens when we are done rescuing people.”

When asked directly about the threat of a terrorist attack on Pittsburgh, Mr. Full answered that it was a very real danger and that while foreign attacks were a concern; his department is more concerned with attacks carried out by domestic extremist groups. “Urban centers,” he stated, “have a lot of elements that are appealing targets for terrorists.” He also said that the city’s significant Jewish population could also draw attacks from extremist groups. In a departure from the experiences of his peers in Erie
and Butler County, Mr. Full’s department did receive an increase in funding from local sources after the events of 9/11.

Regarding federal and state funding, Mr. Full’s complaints mirrored those that we have seen so far. He, too, believes that there are too many restrictions in place on the grants made available by the federal government, and that the surest way to get money to mitigate was to ask for it immediately following a declaration of disaster. Mr. Full was also of the opinion that the national apparatus was far too concerned with terrorism vis-à-vis natural disasters after 9/11. However, he believes this view has softened a bit since the Katrina controversy, though “a philosophical difference still exists” between the local and national levels. As an example, he discussed the availability of funds in order to procure boats from DHS. However, one of the stipulations in receiving these resources was that they could only be used to patrol for terrorist activity and could not be used for search and rescue operations during a disaster response. The increased number of “unfunded mandates” from DHS also causes Mr. Full some consternation, as they tend to increase the workload for an already overworked department.

Ray DeMichiei has been with the Pittsburgh Emergency Management Agency for twenty years and currently serves as its deputy director. His junior, Shelley Bartz, has been with the agency for four years as a program manager and planner. When asked about the biggest hazards to their city, HAZMAT and flooding were chief among them, along with landslides and severe weather. When asked about their experiences with the county emergency apparatus, both DeMichiei and Bartz felt that the relationship was a “net positive” but there are days when there is friction between the two agencies. When
asked to sum it up, DeMichiei said, “It’s a lot like Dickens. It’s the best of times, and it’s the worst of times.”

When asked about drills and exercises, Mr. DeMichiei stated that the city performs quarterly activations of their EOP, which includes tabletop exercises and in some cases full-scale simulations. When asked about the possibility of a terrorist attack, the pair answered that it was indeed a possibility considering the critical infrastructure found within Pittsburgh as well as an iconic urban area. However, both Mr. DeMichiei and Ms. Bartz felt that the city was at less risk of a terrorist attack than other cities such as Philadelphia, the largest city in the Commonwealth of Pennsylvania.

Mr. DeMichiei made no secret that he felt that Pittsburgh did not receive adequate assistance from the state and federal levels in preparing for disaster, and that these agencies did little more than give them more rules and regulations to follow. He believes that this is because such agencies are out of touch with the local level of emergency management, and are more process-oriented rather than ruled by practicality.

Community participation through CERT training and development, while a popular idea with DeMichiei and Bartz, had not been implemented within the city. Bartz cited a lack of appropriate funding to start such a program within the city, and that the EMA made do with the support of various neighborhood organizations. She continued by explaining that such funding is given to the county, and that the city has not seen any of it. DeMichiei voiced his discontent about the fact that while the CERT system was developed for urban areas, the situation as it was would not permit such a thing to happen within the city.
The agency also loses funding and resources for its projects to more vote-friendly local projects, due to what DeMichiei calls its “lack of visibility” and a general feeling among elected officials that a disaster will not befall them while they are in office. He likened the EMA to a homeowner’s insurance policy. Though it is invisible by most measures, a homeowner would be foolish not to have it if they worst were to befall their home, and on the same token a city official would be foolish not to have a strong emergency management agency should the worst befall their city. Despite the fact that over eight hundred thousand people are within the city during work hours, DeMichiei added, elected officials cannot see the value of having such insurance. This same issue pervades the general city populaces as well, and DeMichiei rates it as the single greatest obstacle he faces when addressing hazards within the city. He believes that the best way to obtain additional funding in emergency management is to simply “do a bad job of it.” You might get fired, he said, but at least the person who takes your position will be able to address the issues. Otherwise, you can only hope for enlightened leadership.

As for the emphasis of the federal apparatus, DeMichiei did believe that it spent too much time focusing on terrorism after 9/11. However, since Katrina he is optimistic that it will trend back to an all-hazards approach both in word and spirit. They came to realize, he said, that a hurricane is far more destructive than Osama Bin Laden. Their agency did make the best of the additional anti-terrorist funding but plying it to multi-hazard mitigation rather than simply to stop terrorist activity.

The media in Pittsburgh seems to be more than a handful for DeMichiei, much like the experience that Mr. Matis in Butler had with it. While they can be helpful in a
disaster response, he has run up against a few reporters who have attempted to stir up trouble and controversy for his agency. “It’s just that they not only want, but they need a story,” he said. “So you need to make sure they’re getting yours out there. Otherwise, they’ll find someone else.”

As for their hopes for the future, DeMichiei hoped that the national system could be further simplified and its expectations reevaluated for the local level. In addition, he felt that the fluctuations inherent within the system in terms of standards were problematic. He was optimistic that it was getting better, stating that the National Response Framework was a great improvement over the National Response Plan. His hope, he said, was that it would continue to get better.
V. Discussion and Conclusions

So, what do these three cities reveal as to the preparedness of their various EMCs for a disaster, and how does the size of these cities play a role in it?

Ordinances

First, addressing the ordinances in place within the cities, Pittsburgh and Butler both had zoning designations directly related to hazards present within the city proper that also were located in their respective Hazard Vulnerability Analyses. Butler’s zoning ordinances dealt with the floodplain that ran through a section of the city, while the bulk of Pittsburgh’s zoning ordinances dealt with the steep slopes and man-made hazards that surround the city proper in addition to areas within the river floodplains. Erie’s zoning ordinances had no hazard-specific provisions, even for the waterfront districts bordering Lake Erie. Rather, these ordinances were more concerned with the aesthetic qualities of the structures, which may be due to the fact that the city feels that its standard building codes are sufficient for flooding hazards. The only hazard-related provision found within the Erie ordinance catalog was a provision dealing with street parking in the event of a major snow event, which was unique among the three cities.
Emergency Operation Plans

The Emergency Operation Plans of the three cities, while up to par with the standards set forth by PEMA and the NRF, did show several dissimilarities. One key difference is the plans’ source. Both the Cities of Erie and Butler use their county’s EOP, while Pittsburgh opts to use its own separate plan. This could be due to several reasons, such as budgetary restraints at the municipal level or simply a perceived lack of necessity to develop and implement another plan at the city level.

Each plan approached its Hazard Vulnerability Analysis (HVA) differently, with Erie adhering to the “top three” format of the PEMA plan while Butler and Pittsburgh used different approaches. Other aspects, such as incident specific plans referenced in the Basic Plan, held distinct differences. The most important difference, however, comes from the different Emergency Support Functions listed in each of the plans.
Both Butler’s EOP and Erie’s EOP have nineteen ESFs listed which are nearly identical, save for slight differences in designation. The key difference between the two is Butler’s ESF 9, Search and Rescue, which is broken into two subsections (Urban and Wilderness). This is likely due to the fact that the county of Butler is predominantly rural in the north and it is highly beneficial to change the groups responsible for each area.

Each also has a “superfluous” ESF 14, Military Support, which simply references another

<table>
<thead>
<tr>
<th>Butler</th>
<th>Erie</th>
<th>Pittsburgh</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESF 1 Transport</td>
<td>Transportation</td>
<td>Transport</td>
</tr>
<tr>
<td>ESF 2 Communication</td>
<td>Communications</td>
<td>Communications</td>
</tr>
<tr>
<td>ESF 3 Public Works</td>
<td>Public Works</td>
<td>Public Works</td>
</tr>
<tr>
<td>ESF 4 Fire Services</td>
<td>Fire Services</td>
<td>Firefighting</td>
</tr>
<tr>
<td>ESF 5 Information and Planning</td>
<td>Information and Planning</td>
<td>Emergency Management</td>
</tr>
<tr>
<td>ESF 6 Mass Care</td>
<td>Mass Care</td>
<td>Mass Care</td>
</tr>
<tr>
<td>ESF 8 Health and Medical Services</td>
<td>Health and Medical Services</td>
<td>Public Health</td>
</tr>
<tr>
<td>ESF 9 Search and Rescue</td>
<td>A) Urban</td>
<td>Search and Rescue</td>
</tr>
<tr>
<td></td>
<td>B) Wilderness</td>
<td></td>
</tr>
<tr>
<td>ESF 10 Hazardous Materials</td>
<td>Hazardous Materials</td>
<td>Oil and Hazardous Materials</td>
</tr>
<tr>
<td>ESF 11 Food</td>
<td>Food</td>
<td>Agriculture</td>
</tr>
<tr>
<td>ESF 12 Energy</td>
<td>Energy</td>
<td>Energy</td>
</tr>
<tr>
<td>ESF 13 Law Enforcement</td>
<td>Law Enforcement</td>
<td>Public Safety</td>
</tr>
<tr>
<td>ESF 14 Military Support</td>
<td>Military Support</td>
<td>Community Recovery</td>
</tr>
<tr>
<td>ESF 15 Donations Management</td>
<td>Donations Management</td>
<td>Emergency Public Information</td>
</tr>
<tr>
<td>ESF 16 Animal Protection</td>
<td>Animal Care and Control</td>
<td>-</td>
</tr>
<tr>
<td>ESF 17 Public Information</td>
<td>Public Information</td>
<td>-</td>
</tr>
<tr>
<td>ESF 18 Debris Management</td>
<td>Debris Management</td>
<td>-</td>
</tr>
<tr>
<td>ESF 19 Disaster Recovery</td>
<td>Disaster Recovery</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 1 - Comparative table of the EOP ESFs in each city
document not included with the Basic Plan. Pittsburgh’s EOP does not have a similar ESF.

Butler and Erie’s EOP has four more ESFs contained within it than the PEMA templates as well as the Pittsburgh EOP. Most of these extra ESFs are “spin-off” functions pulled from the basic fifteen and given a higher priority. These new ESFs are numbers 14 (Military Support), 15 (Donations Management), 16 (Animal Care and Control), and 18 (Debris Management). Butler and Erie’s ESF 17, Public Information, may be viewed simply as a repurposing of the ESF 15 housed in the template, External Affairs. Butler and Erie’s ESF 19, Disaster Recovery, is functionally similar to Pittsburgh’s ESF 14, Community Recovery. All three share their origin and purpose with the PEMA ESF 14, Long Term Community Recovery and Mitigation.

Surprisingly, of the three plans surveyed Pittsburgh’s is the least modified in terms of ESF structure, with the majority of the alterations being name changes to better reflect the purposes of various ESFs. While this might be perceived negatively by some, given the city’s situation and resources adhering to the ESF structure as-is may not be such a bad thing. For example, consider the Debris Management ESF listed with Butler and Erie. In the PEMA and Pittsburgh EOPs, the role of clearing debris falls into the jurisdiction of the Firefighting ESF. The city, which likely has a greater capacity in this regard, could likely allow the organizations within this ESF to take on the duties without concern.

The animal-related ESFs of the other two plans, while almost necessary for the counties of Erie and Butler due to their rural areas, would not require the separation from
the Agriculture ESF put forth by the PEMA template due to its urban bent. However, one ESF that would be beneficial to the City of Pittsburgh would be the Donations Management ESF found in the Butler and Erie plans, which has no specific parallel in the PEMA template or the Pittsburgh EOP. Considering the opinions voiced by the emergency managers during the interviews for Pittsburgh regarding the subject of managing donations in a disaster event, this is one item that will hopefully find its way into their system.

Incident specific plans referenced in the Basic Plans of each of the three cities also vary wildly beyond the basic necessities put forward by the PEMA template. All three cities have plans related to radiological response plans, HAZMAT/SARA sites, High Hazard Dams, Continuity of Government, and School Plans. All three also have plans related to the various prison facilities found in each area. Beyond those, Pittsburgh is the only one that has a specific plan in the event of terrorism and it is also the only one that has a plan directly related to an evacuation. These two specific plans may exist due to the size and perceived vulnerabilities of the city. Due to its size, it stands to reason that a strong evacuation protocol would have to be established within Pittsburgh, more so than a smaller town. Terrorism as an incident specific plan does seem to parallel the concerns of both the Allegheny County EMC and the Pittsburgh Emergency Management Agency, as well as it recognition at the national level as a possible target for terrorism.

Erie also has a few unique incident plans, dealing with highly-vulnerable nursing homes as well as special events that may take place within the county. Again, size plays a role here since Erie itself is host to several high-capacity venues for entertainment and
sporting events. Such places are generally not found in smaller cities. Butler has no other plans beyond the common ones it shares with Pittsburgh and Erie.

Most of the incident specific plans deal with specific sites where the hazards they address are found. As an example, HAZMAT/SARA plans are plans put on file at the Emergency Operations Center (EOC) by companies that use or store hazardous materials. That is, the company is the one who develops the plan to fit the site, and a copy is kept at a local EOC for reference by emergency response personnel. High Hazard Dam and School Plans work much the same way, however dealing with specific dam locations or specific school buildings. Due to the multifarious nature of these plans and their complexity, an examination of them is beyond the scope of this research.

Continuity of Government plans are fairly straightforward, primarily concerned with ensuring the proper operation of governmental organizations in the wake of a disaster. These plans include succession of government officials, preservation and reproduction of critical documents, preservation of the court system, and provisions for moving the seat of government in times of crisis.

<table>
<thead>
<tr>
<th>Pittsburgh</th>
<th>Erie</th>
<th>Butler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiological Response Plan</td>
<td>Radiological Response Plan</td>
<td>Radiological Response Plan</td>
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<tr>
<td>HAZMAT/SARA</td>
<td>HAZMAT/SARA</td>
<td>HAZMAT/SARA</td>
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<td>High Hazard Dam</td>
<td>High Hazard Dam</td>
</tr>
<tr>
<td>Continuity of Government</td>
<td>Continuity of Government</td>
<td>Continuity of Government</td>
</tr>
<tr>
<td>Prison – Detention</td>
<td>SCI Albion Plan (Prison)</td>
<td>Butler County Prison</td>
</tr>
<tr>
<td>School Plans</td>
<td>School Plans</td>
<td>School Plans</td>
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<tr>
<td>Terrorism</td>
<td>Nursing Home Plans</td>
<td>-</td>
</tr>
<tr>
<td>Evacuation</td>
<td>Special Events</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 2 - Comparative table of incident specific plans
All three plans, despite the differences in ESF composition, also follow the same structure put forward by the PEMA plan and the NIMS. This hierarchy, known as the Incident Command System (ICS), sets in place a strict chain of command that can be put into place in any disaster situation. The top roles do not have any ESFs attached to them, save for the PIO (Public Information Officer). Most of the ESFs are found in the bottom of the structure under the Operations, Planning, Logistics, or Finance and Administration headings. The ESFs were placed roughly according to the PEMA template’s guidelines, with the “spin-off” ESFs usually belonging to their parent’s section.

![Incident command system hierarchy diagram](image)

**Fig. 5 - Incident command system hierarchy**

**Interviews**

Throughout the interviews, all six EMCs seemed to have a solid grasp on the concepts set forth by the NIMS and its child plans. None of them expressed any sentiment that any other level of government should be held responsible for an incident
other than international terrorism, barring their resources and capacity being totally overwhelmed. Each had a solid understanding of their Emergency Operation Plan, and in most cases was the person responsible for updating it as well.

There was at least some concern regarding the way the changes at the federal level were occurring in each city, some believing the changes to be coming too quickly to be properly implemented at the local level or simply impractical on some levels. For example, there was a great deal of concern by many of the managers regarding the fact that smaller municipalities had to follow guidelines that did not necessarily benefit them and instead served to spread their scarce resources even thinner. The primary issue was the PEMA requirement that every municipality, no matter how small and strapped for cash, needed to have an EOC as well as a staff for it. Even in larger cities and counties, much of the concern seemed to center around funding or the lack of awareness within government or the city of the presence of hazards.

All six EMCs were pleased with the working relationships they had with their counterparts at the city or county level, though in Pittsburgh there seemed to be some friction between the county and city. The lack of local elected official input seemed to pervade all three cities. However, the opinions of the EMCs on this trend were mixed. While Mr. Matis of Butler was concerned that there was a lack of elected responsibility vis-à-vis disaster preparedness, others were fairly indifferent to their lack of input or, in the case of Pittsburgh, pleased with their lack of participation. DeMichiei of the Pittsburgh Emergency Management Agency felt that their job was to appoint people with the proper experience and let those people handle all things pertaining to disasters and
hazards, and essentially just stay out of the way. The EMCs of Erie, while not quite as exuberant as DeMichiei, seemed to share his sentiment.

On the question of terror, only Pittsburgh rated as a potential target in a national threat assessment (where they rated as a Tier 2 city, where the larger city of Philadelphia was a Tier 1). As such, they have done more to address the terrorism within their city, and have had more resources given to them in order to combat it. However, they did believe that they were not a high-profile target, and that cities such as Chicago were at greater risk of terrorism than they. This sentiment seemed to pervade both Butler and Erie, as the managers felt that they were at relatively low risk compared to larger cities. The EMCs of Butler believed that it was at no risk for a terrorist event, while those of Erie felt that while there was some risk it was not necessarily worth investing effort into anti-terrorism measures beyond what they currently had.

When asked about the national emphasis on preparation for terrorism, almost all of the EMCs felt that there was too much of a focus on it. Surprisingly, even the EMCs of Pittsburgh felt that this was the case, and that their work suffered as a result. Only Mr. Eicher felt that the DHS/FEMA focus on terrorism was fine, stating that such an issue was something that could not be ignored.

The Regional Counterterrorism Task Forces that each city belonged to seemed to vary significantly in their attitudes and behaviors. Erie’s RCTTF, comprised of Erie and several smaller counties, seemed to cause its county EMC a great deal of consternation due to what seemed to be an antagonistic environment. However Butler and Pittsburgh, which are both part of the same RCTTF, seemed to be satisfied with it and the support
they were able to gain from it in a disaster situation. Perhaps this is due to the way funding is handed to these task forces and their money sharing, or simply conflicts of personalities present within them. This is an area that would likely require further research.

At all three levels, the accessibility of federal funding was an issue of great concern. Almost everyone with experience with seeking funding from DHS or FEMA felt that there were too many prerequisites for grants, or in some cases the money available was simply not enough to assist them in their efforts. In addition, with the exception of Allegheny County’s emergency management apparatus, no other disaster response agency or department received additional funding at the local level following 9/11 or Hurricane Katrina.

Training available from higher levels met with mixed opinions, where some felt that it was sufficient where others felt it merely scratched the surface of emergency management. Some gaps in the training were pointed out, though none were pervasive. Mr. Robinson of Erie felt that logistics should be given greater emphasis, while the EMCs of Pittsburgh were more concerned about effective donations management. Others, such as Mr. Eicher of Erie, felt that PEMA and FEMA/DHS provided a good assortment of training programs.

The subject of Community Emergency Response Teams (CERT) or active citizens’ corps was an interesting subject as well. Pittsburgh, despite it size, did not have such an element in place though it felt that it needed one. Instead, it relied on other community organizations. Erie had great difficulty in generating interest within the city
population to develop one, though movements for such organizations in smaller communities were gaining momentum. Butler was not satisfied with the grants and resources made available for such a thing, and relied instead on Volunteer Organizations Assisting in Disasters (VOAD) to aid in functions that a CERT might. In short, despite an added emphasis on such an organization aiding in disaster response and recognition at the city level of the need for such a thing, none of the three cities had an active CERT.

Most of the EMCs also held a dim view on the readiness of their cities’ populations in the wake of a disaster, with only Mr. Christy of Butler feeling confident that his population would be capable of fending for itself. Questions about the media in the cities brought up an interesting notion: the overwhelming need for a story. Mr. Matis’ anecdote regarding the green cloud over his county and the subsequent botched handling of the story by the Pittsburgh media points to a greater emphasis on drama rather than information in larger markets. This idea also parallels Mr. Robinson’s assessment of the media in Erie, stating that there had been troublemakers in the past attempting to make names for him or herself in order to ascend the market ladder to Buffalo, New York or someplace similar.

However, what is most striking is that while the EMCs interviewed in this case study have done much to ensure their compliance with the federal system, there is a distinct air of frustration in regard to hitting “the moving target” presented by the higher agencies, as well as a feeling that DHS/FEMA and PEMA are too disconnected from the tribulations present at the local level to understand that what they ask for, in some cases, is unrealistic or counterintuitive. Mr. Matis of Butler believed that they are “being asked
to prepare for the problems of today with the resources of yesterday." That is, PEMA and DHS/FEMA ask for more and more of the local level, expecting them to fulfill new, ephemeral objectives on the same small budgets they have had since before the events of 9/11. While I expected these opinions to change to the affirmative as I visited the larger cities, the opinion was nearly universal. Almost all of the EMCs interviewed felt that the federal and state systems could use some revisiting, and that much of what is learned at the local levels is lost in translation to the higher levels. Indeed, even when they spoke positively of PEMA or DHS, there was an air of resignation around their statements. Perhaps their expectations of the federal and state levels have sunk so low that they have submitted to what they consider to be a harsh reality.
VI. Conclusion

<table>
<thead>
<tr>
<th>City</th>
<th>Butler</th>
<th>Erie</th>
<th>Pittsburgh</th>
<th>City-Size Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
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<td>109,717</td>
<td>312,819</td>
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<td>EOP Compliance</td>
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<td>Yes</td>
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<td>Hazard-Related</td>
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<td>3</td>
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</tr>
<tr>
<td>Ordinances and Zoning</td>
<td></td>
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<td></td>
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<tr>
<td>Emergency Support</td>
<td>19</td>
<td>19</td>
<td>15</td>
<td>Weak</td>
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<td>Functions in Plan</td>
<td></td>
<td></td>
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<td>Incident Specific Plans</td>
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<td>Developer of Plan in Force</td>
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<td>County</td>
<td>City</td>
<td>Moderate</td>
</tr>
<tr>
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<td>A major concern</td>
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<tr>
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<td>Mixed</td>
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<td>Somewhat negative</td>
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<tr>
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<tr>
<td>EMC Opinion of Training and Funding Options</td>
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<td>Mixed</td>
<td>Negative</td>
<td>Moderate</td>
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<tr>
<td>City CERT Activity</td>
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<td>None</td>
<td>None</td>
<td>None</td>
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<tr>
<td>EMC Opinion of Elected Official Participation</td>
<td>Negative</td>
<td>Positive</td>
<td>Positive</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Table 3 - Comparative table of city-size influences on various issues

In conclusion, city size does seem to play a role in the disaster planning and does seem to have an effect on local emergency manager perceptions of disasters and hazards. Perceptions regarding terrorism did seem to fall along the lines of city size following Gerber et al’s study (2005) as was expected, with the largest city (Pittsburgh) being the most concerned about it while the smallest city (Butler) did not perceive any risk to itself from such agents. While city size seems to have impact in other areas that this research
explored, the hazard of terrorism seems to have the strongest correlation with increases in city size.

Training and exercises also increased in complexity and participation as city size increased, with Pittsburgh having the most live exercises while the City of Butler had the least. There was, in all three of the cities surveyed for this research, a definite understanding of the National Incident Management System, or NIMS, as well as its operative plans (the NRP and now the NRF) at the local level. The complexity of the Basic Plans did not seem to vary along the lines of city size. However, Pittsburgh was the only one of the three cities that had its own Emergency Operation Plan, while Erie and Butler had both adopted their respective counties’ EOP. In addition, Pittsburgh and Erie both had incident specific plans that seem to point at the increased complexity found within larger cities.

Despite these differences being expected, a few unexpected similar opinions surfaced during the interview process. The emergency managers of these three cities, though having unique situations to handle, seem to share similar views of the national and status emergency response efforts. They feel that funding from these levels needs to be more accessible and, for the most part, the managers feel that the national focus needs to be averted from the war on terror and back onto the concept of an all-hazards approach. Many expressed disdain for the numerous hurdles they had to overcome in order to obtain federal funding, and several made mention of the fact their pursuit of such funds usually faltered in the face of challenges associated with receiving it. Considering
that I had expected satisfaction with PEMA and FEMA/DHS to increase along with city size, I feel that this is a rather significant finding.

From these three cases studies, it is clear that there is much more to be done at the national and state levels in order to bring together the expectations and needs of emergency management agencies at the local level, and this research only scratches the surface of this critical issue. In this researcher’s opinion, much more needs to be done at the higher levels of government to ensure the best possible response in the wake of a disaster, and at the same time much more needs to be done in the academic circles to see if these opinions reach outside western Pennsylvania. Removing artificial restrictions from federal funding would be strong first step, though this may present its own set of challenges and require stronger oversight from FEMA/DHS to prevent abuse of federal funds.

The state and federal governments should reassess how they can best assist smaller towns and cities, as it is clear that the “one-size-fits-all” approach they currently advocate in the NRF and NIMS may be actually complicating matters for these communities than simplifying their disaster response. Some options include allowing smaller municipalities to create an emergency response coalition similar to the regional terrorist task forces to allow for pooling of resources and expertise into a collective response agency, and perhaps increased federal assistance in applying for and securing grant money.

While these interviews only reveal the opinions of these six EMCs, the fact that they all trended toward the same end shows that at least three cities feel that there is
much to be done to improve the national system, and that some of the expectations under
the NIMS and NRF are in fact hurting more than they are helping. In the end, these six
people are at top of the command ladder in a disaster response, and should be more
confident in the federal and state’s ability to assist them.
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VIII. Appendix

Question List

Introduction

1. What is your official title, and what are your day-to-day responsibilities?
2. How long have you been in your position?
3. How did you come to your position?
4. What is your role in mitigating hazards and preparing for disasters? What do you do during a disaster response?

Standard Questions
If a question uses the word “city,” please consider it to be regarding Pittsburgh.

1. What do you think are the hazard challenges you face as the county emergency management coordinator with a city like Butler in your county? Do you feel more at risk for certain hazards than you might otherwise because of the city?
2. What do you feel are the greatest man-made or natural hazards facing the city and county?
3. Discuss your county EOP. What hazards does it address? How often are you able to revisit and update it? Does it deviate from the template developed by PEMA significantly?
4. How many staff do you have assigned to the various command branches laid out in the PEMA EOP Basic Plan? Which positions are they assigned prior to a disaster?
5. Please describe your working relationship with the Butler fire department.
6. Please describe your working relationship with the state and federal EMAs.
7. How often do you activate the county EOP for training purposes or perform disaster preparedness drills? Do you feel like these activations or drills prepare your first-responders for the real thing?
8. Would you say that your city or county is at risk for a terrorist attack? Which cities in the state of Pennsylvania do you think are at greater risk from terrorism than yours?
9. What sorts of training programs do you participate in that are provided by PEMA or FEMA/DHS? Are there hazards in your county that you feel the training that is available to you does not adequately cover?
10. Do you think the state and federal levels give you adequate assistance in preparing your city or county for disaster? How often are you in contact with
personnel at these levels? Do you believe that a larger city has more “hands-on” time from state and federal levels than a smaller community?

11. Do you feel that the elected officials at the city and county level are sufficiently involved with developing and implementing disaster plans and mitigation measures? Do you think they would be open to developing mitigation measures that may cause a community some initial discomfort, but in the long run would be beneficial?

12. Does the city of Pittsburgh, to your knowledge, have an active citizen corps or CERT? If so, what roles should they fill in regard to hazards and disaster response?

13. Do you believe that some of the measures you would like to see implemented or resources you would like to have are not provided to you because of other, more visible (and vote-friendly) local projects?

14. Has your share of the county budget increased since September 11 or Hurricane Katrina? Since then, do you find money easier or more difficult to obtain for your department?

15. Where do you believe your experience as a emergency manager is the same as those in other Pennsylvania counties or municipalities, and where do you believe it differs? Does the city play a role in this, and how so?

16. What sort of mitigation measures do you have within the county and city? Around how much does your city spend on the upkeep and implementation of these measures?

17. What do you think the greatest obstacle to addressing hazards or threats within the city of Butler, as well as the county?

18. In the event of a disaster, do you feel that most of the people in your city are capable of handling the situation without immediate help from you or some other organization? How long do you think they could function without organized assistance? Why?

19. In the last disaster event your city faced, did you feel that you got adequate logistical and financial support from the state and federal levels? How do you think they could have handled the situation better?

20. In a terrorist attack on your city, how much of a role would you expect the national government to take in the response? Where would they fit in, and where would you fit in?

21. Does your city have any areas that are extremely vulnerable to a hazard?

22. Are there other national, state, or local organizations or departments that you rely on in order to create an effective disaster response? How do they assist your efforts?

23. Do you feel that the national government is too focused on terrorist-centric risks vis-à-vis those associated with natural disasters? Please explain your answer.

24. What is your take on the media in disaster events? Do you think their presence is more of a help or hindrance when affecting a response in a city like Butler? Why or why not?
25. What are your hopes for the future in terms of your city or county, especially in regard to hazard mitigation and disaster preparedness? What changes in the national, state, or local emergency responses do you hope to see, if any?
Consent Form – Interview

Consent Form: The Role of City Size and Official Perception in Disaster Planning: A Collective Case Study

I want to do research on hazard and disaster preparation and response at the local level. I want to do this because it is a critical issue in today’s world and a subject that should be further explored in the academic community. I would like you to take part in this project. If you decide to do this, you will be asked to participate in a short interview concerned with this subject matter.

If you decide to take part in this survey, you can request that you not be personally named within the research and rather referred to as an anonymous party.

If you take part in this project, you will be helping me on my way to completing the requirements for my Master’s degree, as well as contributing to the academic hazards research community. Taking part in this project is entirely up to you, and no one will hold it against you if you decide not to do it. If you take part, you may stop at any time.

If you want to know more about this research project, please call me at 724.859.2140 or Dr. David Kaplan at 330.672.3221. The project has been approved by Kent State University. If you have questions about Kent State University's rules for research, please call Dr. John West, Vice President of Research, Division of Research and Graduate Studies (Tel. 330.672.2704).

You will get a copy of this consent form.

Sincerely,

Gregg Bowser, MA Candidate, Kent State University

B. CONSENT STATEMENT(S)

1. I agree to take part in this project. I know what I will have to do and that I can stop at any time.

_________________________________________  ____________________________
Signature                                Date
**Consent Form – Audio Taping**

I agree to audio taping at ____________________________________________

on ____________________________________________________________.

________________________________________________________________________

Signature  

Date

I have been told that I have the right to hear the audio tapes before they are used. I have decided that I:

_____want to hear the tapes  _____do not want to hear the tapes

Sign now below if you do not want to hear the tapes. If you want to hear the tapes, you will be asked to sign after hearing them.

Mr. Gregg Bowser and other researchers approved by Kent State University may / may not use the tapes made of me. The original tapes or copies may be used for:

_____this research project  _____teacher education  _____presentation at professional meetings

________________________________________________________________________

Signature  

Date

Address: