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THESIS

**CONFLICTS AND COMMON GROUND: THE FISCAL
RELATIONSHIP BETWEEN FEMA, STATES, AND
LOCAL GOVERNMENTS**

by

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March 2022

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BETWEEN FEMA, STATES, AND LOCAL GOVERNMENTS**

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ABSTRACT

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LIST OF ACRONYMS AND ABBREVIATIONS

COVID-19	Coronavirus Disease 2019
CSG	Council of State Governments
DHS	Department of Homeland Security
EM	emergency management
EMPG	Emergency Management Performance Grant
FEMA	Federal Emergency Management Agency
FY	federal fiscal year
NEMA	National Emergency Management Association

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EXECUTIVE SUMMARY

All communities need to know what to do during an emergency. Whether that is knowing what resources are available during the response phase or preparing in advance through trainings and exercises, it is the role of emergency management agencies to coordinate these efforts. Over the past two years, the global COVID-19 pandemic thrust emergency managers across the country, at all levels of government, into the spotlight.¹ Meanwhile, they also contended with increased numbers of natural and manmade disasters, both in terms of frequency and magnitude.² The demand for these essential emergency managers will only intensify with ever-increasing disasters and an uncertain future.³ Thus, the question on everyone's mind is, who is paying for all this? This study examines the fiscal relationship between federal, state, and local governments as it relates to emergency management, because clearly understanding how emergency management is funded is a critical piece to the puzzle.

Each level of government has a defined role in emergency management. "All emergencies are local" is a phrase heard often in the field.⁴ For example when an incident occurs, the local government handles the initial response. When the size or complexity of the incident overwhelms local resources, the state works with the local government to coordinate additional resources. Additional assistance can come from neighboring local governments, state-level emergency support functions, or other states through interstate

¹ Andrea Jackman and Mario Beruvides, "What Emergency Responders Can Learn from the Business World," *Harvard Business Review*, July 27, 2021, <https://hbr.org/2021/07/what-emergency-responders-can-learn-from-the-business-world>.

² Jim Foerster, "While Frequency of Natural Disasters Is Increasing, Related Death Tolls Are Actually Decreasing," *Forbes*, October 1, 2021, <https://www.forbes.com/sites/jimfoerster/2021/10/01/while-frequency-of-natural-disasters-increasing-related-death-tolls-are-actually-decreasing/>.

³ Saul Elbein, "Emergency Managers Face a Chaotic and Uncertain Future," *The Hill*, October 28, 2021, <https://thehill.com/homenews/news/577872-emergency-managers-face-a-chaotic-and-uncertain-future>.

⁴ Bruce Robert Lindsay, "U.S. Disaster Policy: An Analysis of Federal Emergency Supplemental Appropriations" (PhD diss., University of Delaware, 2011), 19, ProQuest.

agreements. Finally, if the incident reaches a level at which the state cannot coordinate sufficient resources or does not have access to the necessary resources, then the state can request federal assistance. According to the Federal Emergency Management Agency (FEMA)’s guidelines, “The most effective strategies for emergency management are those that are federally supported, state managed, and locally executed.”⁵ This approach places the primary responsibility on local government to handle emergencies at the local level whenever possible.

Preparedness is a major initiative within the emergency management mission. The Department of Homeland Security implements a number of programs through FEMA to achieve the *National Preparedness Goal* of a more secure and resilient nation.⁶ Federal grants promoting preparedness initiatives provide the foundational financial support for many emergency management programs. State and local emergency management programs use funding from FEMA’s Emergency Management Performance Grant (EMPG) to support ongoing preparedness initiatives. The all-hazards scope of the EMPG allows state and local programs the flexibility to develop capabilities across a wide range of different threats and hazards. In addition, the consistent allocation and annual disbursement of the grant program provide state and local governments with a certain amount of predictability and reliability in funding to maintain established operations. The focus on preparedness as a national goal and FEMA’s use of EMPG funding to advance that goal form a key component of this research.⁷

Developed with the help of federal grant dollars, emergency management programs have advanced public safety capabilities throughout the country, across federal, state, and local boundaries. All states receive an allocation of federal funds to promote nationwide preparedness and build consistency within the emergency management mission across the

⁵ Federal Emergency Management Agency, *2018–2022 Strategic Plan* (Washington, DC: Federal Emergency Management Agency, 2018), 8, <https://www.fema.gov/media-library/assets/documents/160940>.

⁶ Federal Emergency Management Agency, *Emergency Management Performance Grant Program Multi-Year Programmatic Guidance* (Washington, DC: Federal Emergency Management Agency, 2016), 2, https://www.fema.gov/media-library-data/1464196875293-190ed88e1b63940c87121a3f0b97b8a5/EMPG_Multi_Year_Program_Guidance_Final.pdf.

⁷ Department of Homeland Security, *National Preparedness Goal*, 2nd ed. (Washington, DC: Department of Homeland Security, 2015), <https://www.fema.gov/media-library/assets/documents/25959>.

country.⁸ States also contribute to their own emergency management mission with revenue generated at the state level.⁹ But the difference in those state-level contributions is staggering—in some states as little as 11 percent of the total emergency management operating budget is funded with non-federal state funds, with other states increasing the investment to as much as 78 percent (see Appendix, Table 11). This disparity is concerning given the critical role of emergency management in helping communities during emergencies and disasters. Then again, what is the right approach? How should emergency management agencies be funded? For these reasons, there is a need to analyze the fiscal relationship between federal, state, and local governments to help advance the discussion about what balance of funding maximizes the effectiveness of emergency management programs.

By reviewing the level of federal support and identifying existing gaps, the research compared funding sources for states' emergency management programs. The goal of this comparison was to evaluate the current environment and expose questions about the funding approach. The analysis then linked the federal funding and state emergency management data with other factors, such as population statistics and the number of declared disaster and emergency incidents, to identify potential patterns and correlations. The focus of this perspective was to review the funding sources and determine whether any states might be vulnerable under the present funding allocations.

This thesis presents and analyzes alternative perspectives from each level of government to demonstrate the complexity of any potential recommendations or solutions. The evaluation of the research transitions to suggestions on how to balance the alternative perspectives, which appear to compete in some respects but also share some common ground. This thesis makes recommendations for states determined potentially vulnerable based on the results of the data analysis. After analyzing the research materials and supporting documentation, the study presents an evaluation of the alternative

⁸ Federal Emergency Management Agency, *EMPG Multi-Year Program Guidance*.

⁹ National Emergency Management Association, *2018 Biennial Report* (Lexington, KY: National Emergency Management Association, 2018), 5.

perspectives to demonstrate the potential outcomes and conflicting trade-offs. The analysis concludes with a summary of the purpose for this research and its importance in the emergency management enterprise.

This thesis brought together evidence from an in-depth literature review and other sources directly related to the problem statement. Resources such as government reports and scholarly articles theorizing the effectiveness of specific emergency management practices helped to establish an outline of the importance of this research. The initial expectation of the research was to formulate a uniform approach for funding emergency management at the state level. The analysis required an evaluative method as a precursor to identify the problem statement in an effort to arrive at a potential approach that might work for the majority of states.

A data analysis of the percentage of EMPG funds retained by the state emergency management agency revealed a wide range of differences—from emergency management programs funded with a large majority of federal funds and little state investment to those funded with a much higher percentage of state-level investment in relation to the federal funds percentage. In order to see the picture more clearly, the analysis also included a review of the amount of non-federal funding used to support state emergency management agencies. As shown in this thesis, the distributions vary wildly from jurisdiction to jurisdiction based on how communities prioritize emergency management given their associated risks. Some states invest much more than their EMPG allocation while others spend considerably less, thus relying heavily on federal funds. Because of the wide range of differences, the analysis did not identify significant correlations.

One potential finding from the data involves the number of states with average operating budgets less than their EMPG allocations, meaning these states might not fully meet the 50 percent EMPG match requirement. This observation is not conclusive, however, as there are other possible explanations not evident in the data collected for this research. Many factors go into how a state meets the match requirement, such as the use of other non-federal funds that support state emergency management agencies and can be used as third-party, in-kind cost-share contributions. Nonetheless, such a finding may still be significant considering the federal government's intention to increase its return on

investment. Such observations raise the question whether the federal government is actually getting the dollar-for-dollar value it expects from a 50 percent grant match requirement—and may be another area that warrants further study.

In addition, the frequency of disasters and emergencies that occurred in a particular state might have been a factor in how emergency management agencies were funded at the state level. Including FEMA’s disaster and emergency declarations as a data metric was a way to incorporate a risk component into the analysis. The analysis separated the states into different groups based on several data metrics to identify potential vulnerabilities. This categorization revealed a group of states that might be vulnerable because they did not seem to invest proportionately in the areas of preparedness to manage the number of incidents in their state on an annual basis. To understand the potential issue more completely, additional in-depth research would be needed on those states; however, such an endeavor was beyond the scope of this research and one that must be carried forward in a future study. This research analyzed the fiscal relationship between federal, state, and local governments to help advance the discussion about what balance of funding maximizes the effectiveness of emergency management programs.

The examination of alternative perspectives revealed some interesting common themes along with areas where perspectives differed—and occasionally where they overlapped. Several major themes that emerged center on building a culture of preparedness and the associated federal funding in the context of different roles of the levels of government. These alternative perspectives are important as they question accepted government roles and how they relate to the large sums of federal dollars supporting the field of emergency management.

Finally, this thesis closes with an evaluation of findings, policy implications, and recommendations. It outlines recommendations for the states determined potentially vulnerable based on the results of the data analysis. It also presents a policy analysis with implementation methods for the findings identified. The analysis concludes with a summary of the purpose for this research and its importance in the emergency management enterprise in an effort to gain a better understanding of the fiscal relationship between federal, state, and local governments.

Undeniably, emergency management has played an essential role in recent years at every level of government, from the local, to the state, to the federal level. Whether it was managing a global pandemic or historic levels of natural disasters, this field has proven its worth and significance. The frequency and intensity of disasters seem to be growing, and the expectations placed on emergency management will only increase as the field becomes more diverse and experienced. As one can imagine, the results did not lead to a magic formula, but this research advanced the discussion and laid the foundation for others to continue analyzing the important question of how emergency management should be funded at the state level—because all communities need to know what to do during an emergency, and it is the role of emergency management agencies to help communities prepare.

ACKNOWLEDGMENTS

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I. INTRODUCTION

All communities need to know what to do during an emergency. Whether that is knowing what resources are available during the response phase or preparing in advance through trainings and exercises, it is the role of emergency management agencies to coordinate these efforts. Over the past two years, the global COVID-19 pandemic thrust emergency managers across the country, at all levels of government, into the spotlight.¹ Meanwhile, they also contended with an increased number of natural and manmade disasters, both in terms of frequency and magnitude.² The demand for these essential emergency managers will only intensify with ever-increasing disasters and an uncertain future.³ Thus, the question on everyone's mind is, who is paying for all this? This study examines the fiscal relationship between federal, state, and local governments as it relates to emergency management, because clearly understanding how emergency management is funded is a critical piece to the puzzle.

A. PROBLEM STATEMENT

Each level of government has a defined role in emergency management. "All emergencies are local" is a phrase heard often in the field.⁴ For example, when an incident occurs, the local government handles the initial response. When the size or complexity of the incident overwhelms local resources, the state works with the local government to coordinate additional resources. Additional assistance can come from neighboring local governments, state-level emergency support functions, or other states through interstate agreements. Finally, if the incident reaches a level at which the state cannot coordinate sufficient resources or does not have access to the necessary resources, then the state can request federal assistance. According to the Federal

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⁵ Federal Emergency Management Agency, *2018–2022 Strategic Plan* (Washington, DC: Federal Emergency Management Agency, 2018), 8, <https://www.fema.gov/media-library/assets/documents/160940>.

⁶ Federal Emergency Management Agency, *Emergency Management Performance Grant Program Multi-Year Programmatic Guidance* (Washington, DC: Federal Emergency Management Agency, 2016), 2, https://www.fema.gov/media-library-data/1464196875293-190ed88e1b63940c87121a3f0b97b8a5/EMPG_Multi_Year_Program_Guidance_Final.pdf.

⁷ Department of Homeland Security, *National Preparedness Goal*, 2nd ed. (Washington, DC: Department of Homeland Security, 2015), <https://www.fema.gov/media-library/assets/documents/25959>.

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B. RESEARCH QUESTION

How should emergency management be funded at the state level?

C. RESEARCH DESIGN

This thesis examines the fiscal relationship between federal, state, and local governments to consider how emergency management should be funded at the state level. It reviews the history of federal support that created the current emergency management structure, including the grants and federal funding levels over the years. Reviewing the level of federal support and identifying any gaps that exist, the research compares existing funding sources for states' emergency management programs. The goal of this comparison is to evaluate the current environment and expose questions about the funding approach.

This research also presents additional information about the amount of state funding invested in emergency management programs. The data analysis compares average state funding levels to the amount of federal emergency management funding received to determine an apportionment percentage. Survey responses from the National Emergency Management Association (NEMA)'s *Biennial Report* supply data for the research. The analysis then links the federal funding and NEMA data with other factors, such as population statistics and the number of declared disaster and emergency incidents, obtained from open sources such as the U.S. Census Bureau and FEMA, to identify potential patterns and correlations. The focus of this perspective is to review the funding sources and determine whether any states might be vulnerable under the present funding allocations.

This thesis presents and analyzes alternative perspectives to demonstrate the complexity of any potential recommendations or solutions. The analysis uses a case study method to compare information from each level of government, applying scenarios based on the previous research in related fields coupled with the data studied, such as federal grant funding cross-referenced with population and declarations. As Robert K. Yin explains in his book *Case Study Research: Design and Methods*, choosing a case study as a method of research depends on the topic examined.¹⁰ Research involving a “how” or “why” question about some “complex social phenomenon” makes the case study method an effective approach.¹¹ Yin uses a specific research procedure that provides a method to analyze real-world situations and then present a fair representation based on objective evidence.¹² A summary of Yin’s case study research method follows to demonstrate the importance of the process related to this thesis.

Yin lays out the case study research process in five distinct steps—design, prepare, collect, analyze, and share. Nevertheless, even though the book suggests the steps be followed in this sequence, the process is meant to be dynamic and collaborative, with various steps revisited, sometimes multiple times, throughout the case study process.¹³ The first step in the process—design—establishes the plan for conducting the research.¹⁴ The second step involves preparing for data collection.¹⁵ This foundational step in the process helps the data collection proceed more effectively, for example determining how to organize the data in a useful format or making sure all permissions and approvals are in place before conducting interviews.¹⁶ The next step is actually collecting the data. This step and the previous preparation step may need revisiting frequently throughout the process, as a researcher may have to change approaches as insights emerge during data collection.¹⁷

¹⁰ Robert K. Yin, *Case Study Research: Design and Methods*, 5th ed. (Los Angeles: Sage Publications, 2014), 4.

¹¹ Yin, 4.

¹² Yin, 5.

¹³ Yin, 1.

¹⁴ Yin, 26.

¹⁵ Yin, 70.

¹⁶ Yin, 125.

¹⁷ Yin, 102.

Once a researcher is confident in the volume and reliability of the data collected, the case study research process can move to the analysis step.¹⁸ In this step, a researcher analyzes the data to identify potential findings, comparisons, and correlations. This is one of the most challenging steps because it involves synthesizing the data, but incorporating a well-defined analytical strategy can help to ease the process.¹⁹ The last step is finalizing the findings and conclusions as well as sharing the results of the case study research.²⁰ The final report must demonstrate the importance of the research and present the material in an interesting style.²¹ Yin's case study method supplies a linear, analytic structure for formatting a standard research report.²²

This thesis uses the case study method by incorporating all of the steps outlined in Yin's process. The master's program curriculum covered the initial planning phase of the process, with specific courses dedicated to learning the best ways to approach researching a topic. The design and prepare steps in the process were also presented within the structured coursework. Instructors used time-tested processes and led discussions, workshops, exercises, and group activities to help students build a level of proficiency for conducting this standard of research. These initial steps in the process focused the research question and revealed a problem statement. Different sections throughout this thesis detail the next steps in the process—collecting and analyzing. Processes learned during the master's coursework guided these steps, but the work was completed independently. The case study research process culminates in an effort to distribute the completed report to relevant stakeholders and highlight the work. Specifically, this thesis uses the case study method in various ways, including data collection as presented in the Appendix, the literature review of previous significant works related to the research topic, the data analysis and consideration of alternative perspectives, and the recommendations based on findings and conclusions.

This thesis considers how emergency management should be funded and examines the topic at the federal, state, and local level. The research presents a policy analysis to examine how

¹⁸ Yin, 132.

¹⁹ Yin, 169.

²⁰ Yin, 176.

²¹ Yin, 206.

²² Yin, 188.

emergency management should be funded considering alternative perspectives from each level of government. The evaluation of the research led to suggestions on how to balance the alternative perspectives, which appear to compete in some respects but also share some common ground. The thesis makes recommendations for the states determined potentially vulnerable based on the results of the data analysis. This thesis also presents a policy analysis with implementation methods for the findings identified. The analysis frames the problem statement using elements from Bardach and Patashnik's book *A Practical Guide for Policy Analysis*. As suggested by Bardach and Patashnik, the original motive of this thesis was not the end result; instead, it morphed along the way as research revealed a more informed path.²³

The path outlined by Bardach and Patashnik provides a structure to explore a problem in detail and offer potential solutions.²⁴ Their approach includes the following elements: defining the problem; identifying alternatives and the evaluation criteria; collecting evidence throughout the process; projecting potential outcomes; analyzing any trade-offs; re-reviewing the work to ensure it focuses on the defined problem; and, finally, telling the story.²⁵ Every policy analysis process may not need all of these elements, but the structure is meant to be a guide to make sure all factors are considered during the process.²⁶

The policy analysis process used for this thesis involved many different iterations to define a clear research question. Once the research question and problem statement were identified, the selection of evaluation criteria focused the work and narrowed the scope. This thesis brings together evidence from an in-depth literature review and other sources directly related to the problem statement. After analyzing the research materials and supporting documentation, the study presents an evaluation of the alternative perspectives to demonstrate the potential outcomes and conflicting trade-offs. The analysis concludes with a summary of the purpose for this research and its importance.

²³ Eugene Bardach and Eric M. Patashnik, *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving*, 5th ed. (Los Angeles: CQ Press/SAGE Publications, 2016), 1.

²⁴ Bardach and Patashnik, xvi.

²⁵ Bardach and Patashnik, xvi.

²⁶ Bardach and Patashnik, xvii.

The literature review supports the relevance of researching how emergency management should be funded and shows the depth surrounding the topic of study.²⁷ It includes sections covering federalism, intergovernmental relations, emergency management, preparedness, and public finance. The literature review uses foundational research on federalism and intergovernmental relations to identify patterns in policies and categorize elements that could relate to emergency management. A brief history on the field of emergency management is included, along with a focus on the preparedness mission, to demonstrate the importance within the homeland security project. The literature available on fiscal federalism as it relates to emergency management is limited, however. This lack of information calls for an expansion of the discussion about funding emergency management initiatives at each level of government. Additional research was required to guide the discourse on maximizing the use of funds available for overall preparedness efforts.

This thesis also reviews sources about intergovernmental relations to examine the related literature. Intergovernmental relations literature specifically addressing emergency management is also limited, although the review linked overall correlations based on analogous topics. Resources such as government reports and scholarly articles theorizing the effectiveness of specific emergency management practices help to establish an outline of the importance of this research. The initial expectation of the research was to formulate a uniform approach for funding emergency management at the state level. The analysis required an evaluative method as a precursor to identify the problem statement to arrive at a potential approach that might work for the majority of states.

Due to time and resource constraints, there were certain limits to the scope of this thesis, including not being able to drill down to the details of local government funding for emergency management and focusing only on one specific federal funding stream. These constraints were developed intentionally to narrow the scope and advance the research for this focused topic.

²⁷ Yin, *Case Study Research*, 192.

D. CHAPTER OVERVIEW

This thesis is organized into five chapters—including this introduction, which presented the problem statement and the research design. Chapter II reviews literature on emergency management, with a focus on federalism, intergovernmental relations, preparedness, and public finance. In Chapter III, the analysis explains the data compiled in the Appendix to identify any potential comparisons or correlations. Chapter IV considers the research as alternative perspectives from each level of government. Finally, this thesis concludes with an evaluation of findings, policy implications, and recommendations.

II. LITERATURE REVIEW

This literature review supports the relevance of researching how emergency management should be funded and demonstrates the depth surrounding the topic of study.²⁸ This section assembles evidence from sources directly related to the problem statement. It includes sections on federalism, intergovernmental relations, emergency management, preparedness, and public finance. By design, the scope is limited due to time and resource constraints, with a focus on advancing the research on the fiscal relationship between federal, state, and local governments for emergency management.

A. FEDERALISM

One of the frames for this thesis is the federalism perspective. Federalism is a system of government whereby a central national authority and other subnational authorities share power and responsibilities. Each level of government has a defined role, and within that role is an understanding of the division of power between the levels of government in a federalist system. This separation of power allows for checks and balances that limit authority, but with those limitations also comes a reduced level of flexibility and adaptability in the process. In the United States, the U.S. Constitution grants certain authority to the federal government, and separate authorities are balanced in the states.²⁹ Literature exploring the relationship between the federal government and the states is centuries old, dating back to the founding of the Union between the original colonial states.³⁰ As presented in the following sources, more recent literature specific to the field of emergency management covers the span of several decades, primarily focused on disaster response and recovery efforts. Moreover, federalism can take on many forms.

John Kincaid, a prominent scholar in fiscal federalism, discusses coercive federalism, a concept describing the federal government's method of directing specific objectives or outcomes

²⁸ Yin, *Case Study Research*, 192.

²⁹ Ronald K. Vogel, "Multilevel Governance in the United States," in *Spheres of Governance: Comparative Studies of Cities in Multilevel Governance Systems*, ed. Harvey Lazar and Christian Leuprecht (Montréal: McGill-Queen's University Press, 2007), 268.

³⁰ Vogel, 258.

by placing requirements tied to federal funding, commonly referred to as mandates.³¹ Kincaid acknowledges many cooperative relationships between the federal and state governments but raises concerns about how the federal government's motives may conflict with state and local objectives.³² These alternative perspectives are important as they question accepted government roles and how they relate to the large sums of federal dollars supporting the field of emergency management.

Phaup and Kirschner also assess the role of the federal government in their article "Budgeting for Disasters."³³ They assert that the federal government has certain advantages in economies of scale, which allow them to reduce the risk and, in turn, respond more efficiently to disasters.³⁴ The authors emphasize the importance of the federal government in disaster response, indicating governments would lose credibility if they did not act efficiently and effectively in responding to disasters.³⁵ The authors also examine a government's option either to budget for disasters upfront or to find the money to pay for disaster costs after the fact.³⁶ Their findings demonstrate the relevance of further researching how different levels of governments should budget for emergencies and disasters.

An obvious example of this was on full display in New Orleans during the aftermath of Hurricane Katrina in 2005.³⁷ Vogel uses this incident to question the readiness and cooperation between the three levels of government—federal, state, and local.³⁸ He posits that poor leadership and political bureaucracy can often get in the way during a disaster even in a multilevel governance system with well-defined roles.³⁹ Misunderstood roles within the multilevel governance system

³¹ John Kincaid, "State-Federal Relations: Federal Dollars Down, Federal Power Up," in *The Book of the States, 2006* (Washington, DC: Council of State Governments, 2006), 22.

³² Kincaid, 21.

³³ Marvin Phaup and Charlotte Kirschner, "Budgeting for Disasters: Focusing on the Good Times," *OECD Journal on Budgeting* 10, no. 1 (June 2010): 1–24, <https://doi.org/10.1787/budget-10-5kmh5h6tzrns>.

³⁴ Phaup and Kirschner, 5.

³⁵ Phaup and Kirschner, 5.

³⁶ Phaup and Kirschner, 2.

³⁷ Vogel, "Multilevel Governance in the United States," 282.

³⁸ Vogel, 289.

³⁹ Vogel, 288.

were evident during the response to Hurricane Katrina, as local, state, and federal officials were all largely unprepared to help the residents and visitors in the New Orleans area due to a lack of coordination and cooperation.⁴⁰ These arguments highlight the importance of each level of government knowing its defined role while also coordinating regularly to understand how roles can change and overlap during a disaster.

In her master's thesis, Samantha Ladich uses federalism as a framework to examine options for establishing legal uniformity within the national fusion center network.⁴¹ At the time of her research, there were 79 separate fusion centers in the network, amounting to over 50 different legal structures to consider across the states and territories.⁴² The fusion centers are often operationally distinct as they primarily serve the area of responsibility for their community.⁴³ However, the infusion of federal dollars to support the network as a means to develop some consistency and coordination between the different fusion centers adds a layer of complexity to the legal situation.⁴⁴ In this federalism context, the sharing of power for potentially competing goals highlights the alternate perspectives from different levels of government about whether the issue serves the fusion center network or the emergency management mission.

B. INTERGOVERNMENTAL RELATIONS

Expanding on the federalism concept, this research delves deeper by examining intergovernmental relations linked to the problem statement. As was shown in the literature on federalism, each level of government has a defined role in emergency management. "All emergencies are local" is a phrase heard often in the field.⁴⁵ For example, when an incident occurs, the local government handles the initial response. If the magnitude of the incident overwhelms local resources, the state works with the local government to coordinate additional resources. Additional assistance can come from neighboring local governments, state-level emergency

⁴⁰ Vogel, 286.

⁴¹ Samantha Ladich, "Asserting Collective State Sovereignty to Strengthen the National Network of Fusion Centers" (master's thesis, Naval Postgraduate School, 2018), 2, <https://www.hsdl.org/?view&did=811330>.

⁴² Ladich, 1.

⁴³ Ladich, 8.

⁴⁴ Ladich, 17.

⁴⁵ Lindsay, "U.S. Disaster Policy," 19.

support functions, or other states through interstate agreements. Finally, if the incident reaches a level at which the state cannot coordinate sufficient resources or does not have access to the necessary resources, then the state can request federal assistance. According to FEMA, “The most effective strategies for emergency management are those that are federally supported, state managed, and locally executed.”⁴⁶ This approach places the primary responsibility on local government to handle emergencies at the local level whenever possible.

Donahue and Joyce analyze the framework of emergency management as it relates to the fiscal responsibilities for each level of government—federal, state, and local. Their research supports the current model implemented by FEMA for disaster preparedness and response through federal support, state management, and local execution.⁴⁷ The article focuses on incentives surrounding disaster funding and the resulting impacts to policy formulation. This can be seen in the attention given immediately following a disaster, creating an incentive to show support during the highly visible response phase.⁴⁸ In contrast, the preparedness phase of disaster planning rarely receives the same level of attention, which removes the incentive and shapes policy decisions as a result.⁴⁹ The general discussion about roles of government as well as the more nuanced viewpoints of incentive-driven behavior, as Donahue and Joyce relate to motivating factors in allocating funding, shows how incentives can influence policy. This concept of intergovernmental relations—or how each level of government interacts with the others and within its defined role—provides an established framework by which to analyze the problem space and determine whether the current roles and coordination are effective.

In terms of intergovernmental responsibilities during a disaster, many scholars and practitioners agree that the local level handles the initial response. Crow et al. highlight this basic tenet of emergency management in their review of financial policy learning after a disaster.⁵⁰ Their

⁴⁶ Federal Emergency Management Agency, *2018–2022 Strategic Plan*, 8.

⁴⁷ Amy K. Donahue and Philip G. Joyce, “A Framework for Analyzing Emergency Management with an Application to Federal Budgeting,” *Public Administration Review* 61, no. 6 (2001): 728–40, <https://doi.org/10.1111/0033-3352.00143>.

⁴⁸ Donahue and Joyce, 732.

⁴⁹ Donahue and Joyce, 733.

⁵⁰ Deserai A. Crow et al., “Do Disasters Lead to Learning? Financial Policy Change in Local Government,” *Review of Policy Research* 35, no. 4 (2018): 566, <https://doi.org/10.1111/ropr.12297>.

research focuses on the local perspective but reflects on the federal and state requirements and restrictions that often limit the local government's ability to manage the response and recovery effectively.⁵¹ The restrictions imposed between different levels of government illustrate how policy formation can affect the cooperative relationships necessary in dealing with these emergency coordination efforts.

Better defining the roles and responsibilities of each level of government may help clarify expectations and result in a more efficient and effective response. In their article titled "Preparing for Disaster," Kahn and Barondess state, "Disaster planning and preparation in the United States should be carried out at levels no lower than the states to take advantage of a more-centralized approach. Locals should not be expected to develop and coordinate cross-jurisdictional planning, preparation, and response, functions better carried out by a centralized command structure at the state level."⁵² The United States' decentralized system places the responsibility for incidents largely on local jurisdictions.⁵³ The states then assist with coordinating additional resources as local capacities are overwhelmed. The federal government participates in a predominantly supportive role, getting involved only at a significant operational level during major disasters. If applied in a more structured and uniform manner, this clarity around roles and responsibilities could enhance a state's ability to respond more effectively to emergencies and disasters.

The Council of State Governments (CSG) is an organization that "fosters the exchange of insights and ideas to help state officials shape public policy."⁵⁴ In a 2021 issue of CSG magazine *Capitol Ideas*, Joel Sams examines the proper role of the states in the federal system.⁵⁵ He references the historical basis of the federalist system in the United States through the *Federalist Papers* and the *Constitution*. According to the article, the federal government did not have substantial power as the Union was forming. Over the years, the federal government has gained

⁵¹ Crow et al., 570.

⁵² Laura H. Kahn and Jeremiah A. Barondess, "Preparing for Disaster: Response Matrices in the USA and UK," *Journal of Urban Health* 85, no. 6 (November 2008): 920, <http://doi.org/10.1007/s11524-008-9310-y>.

⁵³ Kahn and Barondess, 913.

⁵⁴ "Publications," Council of State Governments, accessed January 29, 2022, <https://www.csg.org/work/publications/>.

⁵⁵ Joel Sams, "Partners in Government," *Capitol Ideas*, no. 1 (2021): 20, https://issuu.com/csg.publications/docs/ci_issue_1_2021_web/s/11720602.

increasingly more power—allowing the federal government to provide support for a variety of public service needs—but often specific mandates and requirements accompany that support. This increased federal support can in turn limit the ability of states to decide how best to use the funding.

Next, Sams discusses the changes since the country’s founding to the relationship between the states and the federal government, through the lens of the COVID-19 pandemic response.⁵⁶ This discussion captures the thoughts of leaders representing both state and federal agencies about how to learn from the lessons of the COVID-19 pandemic response. Some highlight the lack of a unifying strategy at the federal level, the downside of “one-size-fits-all” solutions, states competing against each other for limited resources, and a renewed call for cooperative partnerships accomplished through networking and open communication.⁵⁷ These points are relevant because the policies passed down from the federal level, especially regarding legislation and funding, have a significant impact on what the states can then implement and pass through to the local level.

In the book *Emergency Management: Principles and Practice for Local Government*, McEntire and Dawson examine “The Intergovernmental Context.” They state, “It is through funding that the federal government encourages state and municipal governments to support national programs.”⁵⁸ The requirements tied to federal grants yield a level of control to push specific national priorities, even if they do not align with the needs of the state and local governments.⁵⁹ However, the authors continue, the federalist system also provides a degree of flexibility with the understanding that disasters affect each community differently and hazards vary across the country.⁶⁰ There are opportunities to use federal funding to address a large swath of threats, but a large portion may be required to fall within the sphere of influence surrounding the federally identified priority areas.

⁵⁶ Sams, 21.

⁵⁷ Sams, 22–23.

⁵⁸ David A. McEntire and Gregg Dawson, “The Intergovernmental Context,” in *Emergency Management: Principles and Practice for Local Government* (Washington, DC: ICMA Press, 2007), 59.

⁵⁹ McEntire and Dawson, 59.

⁶⁰ McEntire and Dawson, 59.

C. EMERGENCY MANAGEMENT AND PREPAREDNESS

State governments use their fiscal relationship with FEMA to support emergency management programs. Many states also distribute federal funding to local governments to maintain emergency management capabilities at the city and county level. These programs have grown since the events of 9/11 through billions of dollars in federal support, building emergency management capacity at the state and local level.⁶¹ Themes reviewed in the literature include general theories of emergency management and attitudes toward emergency preparedness, especially concerning federal grant funding available to support these programs. The literature discussing these subjects involves a well-established and standardized approach to emergency management, specifically relating to federal guidance such as DHS's *National Preparedness Goal*.⁶²

Preparedness is a major initiative within the emergency management mission. DHS implements a number of programs through FEMA to achieve the *National Preparedness Goal* of a more secure and resilient nation.⁶³ The *National Preparedness Goal* is a policy document that sets the standard for the field, supported by planning frameworks addressing each phase of emergency management.⁶⁴ Federal grants promoting preparedness initiatives provide the foundational financial support for many emergency management programs. Moreover, state and local emergency management programs use FEMA's EMPG funding to support ongoing preparedness initiatives. Notably, the all-hazards scope of the EMPG allows state and local programs the flexibility to develop capabilities across a wide variety of different threats and hazards. In addition, the consistent allocation and annual disbursement of the grant program provide state and local governments with a certain amount of predictability and reliability in funding to maintain established operations. The focus on preparedness as a national goal and FEMA's use of EMPG funding to advance that goal form a key component of this research.⁶⁵

⁶¹ National Emergency Management Association, *2018 Biennial Report*, 5.

⁶² Department of Homeland Security, *National Preparedness Goal*.

⁶³ Federal Emergency Management Agency, *EMPG Multi-Year Program Guidance*, 2.

⁶⁴ Department of Homeland Security, *National Preparedness Goal*, 1.

⁶⁵ Department of Homeland Security.

A master's thesis by Brian Barnes analyzes the impacts of federal preparedness grants. He suggests that since most state and local governments rely heavily on these federal grant funds, emergency management programs must follow the federal policies as a condition of receiving the funding.⁶⁶ The importance of preparedness grants provides a framework for relating fiscal federalism and intergovernmental relations theories to emergency management. Barnes theorizes that federal policy related to preparedness funding may be shaping decisions at the local government level.⁶⁷ As the scope of his research was limited to emergency management programs primarily in North Carolina, the author questions whether any findings are applicable to emergency management programs in other states.⁶⁸ In conclusion, Barnes emphasizes the importance of federal preparedness funding but warns it should fit the needs at the state and local level.⁶⁹

Research in Canada has examined taxpayers' "willingness to pay" for enhanced emergency management programs.⁷⁰ In their study, Asgary, Moeini, and Mehregan highlight the importance of preparedness activities in local governments while acknowledging the difficulty of allocating money for just-in-case scenarios vis-à-vis more immediate needs at the local level.⁷¹ The authors explain how the benefits gained by reducing the costs of response and recovery through preparedness efforts can be a difficult selling point for local government officials.⁷² The results of their survey indicate that only a small proportion of taxpayers are willing to pay based on specific criteria. While the results are limited due to the scope of their research in a particular geographic area, they nonetheless emphasize the need to continue similar research efforts to identify the value of preparedness in local communities.

⁶⁶ Brian Barnes, "Federal Preparedness Grants: An Investigation of the Impacts to Local and State Emergency Management Programs" (master's thesis, Eastern Kentucky University, 2017), 1, <https://encompass.eku.edu/etd/505>.

⁶⁷ Barnes, 2.

⁶⁸ Barnes, 56.

⁶⁹ Barnes, 63.

⁷⁰ Ali Asgary, Seyed M. Mehdi Moeini, and Nader Mehregan, "Willingness to Pay for Enhancing Local Emergency Preparedness Programmes: Evidences from Canada," *International Journal of Emergency Management* 8, no. 2 (2012): 168.

⁷¹ Asgary, Moeini, and Mehregan, 170.

⁷² Asgary, Moeini, and Mehregan, 169.

Authors Miao, Hou, and Abrigo add to this discussion with their analysis of federal disaster aid to states over a 30-year period. Not surprisingly, their findings show an increase in spending after a disaster, fueled substantially by federal transfers of disaster aid.⁷³ More interesting is their associated policy implications surrounding these findings—for example, federal aid distributes tax liability to the entire country, not just the local community.⁷⁴ In other words, by using federal dollars to help a community recover from a disaster, taxpayers from outside the affected area are sharing the cost. The researchers go on to say that the reliability of federal aid may contribute to states' reluctance to institute more aggressive disaster preparedness policies.⁷⁵ These findings justify further investigation into how emergency management should be funded at the state level.

Homeland security grant funding is often associated with assistance related to combating acts of terrorism. However, it is a common misconception that homeland security relates only to terrorism when, in reality, it encompasses a broad range of issues. The United States *National Strategy for Homeland Security*, released in October 2007, focuses heavily on counterterrorism, but it also encourages preparedness in a homeland security context to other policy areas, including natural and manmade catastrophes, public health emergencies, and critical infrastructure protection, just to name a few.⁷⁶ Many states employ an all-hazards approach within preparedness to tailor programs based on specific risks identified in their areas, which do not always include a significant emphasis on terrorism.

A joint conference, consisting of United Kingdom and United States government agencies, assembled in 2007 to review responses to several disasters in the two countries. Senior representatives shared their experiences in an after-action review format to share lessons learned with the goal of increasing collaboration and improving future outcomes. Not surprisingly, one of the most significant take-aways from the conference was that coordination across multiple

⁷³ Qing Miao, Yilin Hou, and Michael Abrigo, "Measuring the Financial Shocks of Natural Disasters: A Panel Study of U.S. States," Paper No. 199 (Syracuse: Syracuse University, Center for Policy Research, 2016), 37, <https://surface.syr.edu/cpr/232>.

⁷⁴ Miao, Hou, and Abrigo, 38.

⁷⁵ Miao, Hou, and Abrigo, 38.

⁷⁶ Nadav Morag, *Comparative Homeland Security: Global Lessons*, 2nd ed. (Hoboken, NJ: Wiley, 2018), 2–3.

agencies must happen rapidly to increase the likelihood of an effective response to a disaster.⁷⁷ This “matrix” (as it was referred to in the report) of cross-jurisdictional and multi-discipline coordination can be successful only if there is “systemic preparedness” already in place.⁷⁸ In other words, there must be total buy-in to the preparedness process. The results of this conference emphasize that successes in disaster response happen when the preparedness efforts are implemented before the events.

Author Caleb Cage studied the value of preparedness relating to leadership and decision-making during a crisis. In his master’s thesis, Cage examines the decision points presented to state and local political officials before, during, and after a crisis.⁷⁹ He demonstrates that crisis leadership can be effective only when officials take a proactive approach before a crisis whereas waiting until after a crisis occurs undermines the leader’s options and complicates the reaction to crisis management.⁸⁰ The preparedness measures taken by political officials before a crisis emphasize the difference between effectively leading during a crisis and just managing the aftermath. The critical role of preparedness is evident for all levels of government officials, from federal, to state, to local.

D. PUBLIC FINANCE

Government dollars, particularly from the federal level, supply funding to support emergency management services. This outlay of taxpayer money falls within a branch of economics known as public finance. In his book, Gruber defines public finance as “the study of the role of the government in the economy”—the goal of that study being to determine the appropriate place for government in the economy.⁸¹ Public finance analyzes government spending to evaluate how it benefits the common good, or the community as a whole.⁸² Gruber also

⁷⁷ Kahn and Barondess, “Preparing for Disaster,” 911.

⁷⁸ Kahn and Barondess, 911.

⁷⁹ Caleb S. Cage, “The Nevada Family: Political Crisis Leadership and Resilience Narratives in the Silver State” (master’s thesis, Naval Postgraduate School, 2017), 67, <https://www.hsdl.org/?view&did=808383>.

⁸⁰ Cage, 67.

⁸¹ Jonathan Gruber, *Public Finance and Public Policy*, 3rd ed. (New York: Worth Publishers, 2011), 2–3, <http://155.0.32.9:8080/jspui/bitstream/123456789/755/1/Public%20Finance%20and%20Public%20Policy%20%28%20PDFDrive.com%20%29.pdf>.

⁸² Gruber, 16.

emphasizes the opportunity costs in having to make choices about the best use of limited government funding.⁸³

A review of public finance literature indicates limited research is available about emergency management specifically, as noted by Lindsay in his dissertation on U.S. disaster policy.⁸⁴ Lindsay's review in this area concentrates on public budgeting and disaster funding.⁸⁵ While his work focuses on appropriating emergency supplemental funding after a disaster and the extent to which that common practice needs to be modified, the correlated policy implications of using funds for services other than disaster assistance are relevant to this research.⁸⁶ Lindsay concludes that funding for disaster assistance should be reconsidered by placing more emphasis on the amount budgeted up front as opposed to after the fact with emergency supplemental appropriations.⁸⁷ Budgeting for outcomes that are uncertain, as is the case with emergencies and disasters, is hard to justify when the budget might address other priorities with more immediate results, such as infrastructure, education, or health care.

An article by Phaup and Kirschner describes in detail different mechanisms for budgeting for disasters, considering options that would work best either before or after an incident.⁸⁸ The authors focus primarily on risk-reduction methods that might be effective, such as various insurance measures, but also raise interesting policy considerations for governments choosing not to budget for disasters.⁸⁹ Their research suggests that disasters may not have a significant budgetary impact compared to nations' overall budgets.⁹⁰ The authors also point out that funding for disaster preparedness comes with obvious opportunity costs because it takes money away from other public services.⁹¹

⁸³ Gruber, 32.

⁸⁴ Lindsay, "U.S. Disaster Policy," 34.

⁸⁵ Lindsay, 41.

⁸⁶ Lindsay, 4.

⁸⁷ Lindsay, 167.

⁸⁸ Phaup and Kirschner, "Budgeting for Disasters," 5.

⁸⁹ Phaup and Kirschner, 10.

⁹⁰ Phaup and Kirschner, 11.

⁹¹ Phaup and Kirschner, 6.

A study by Prante and Bohara examines the political influence on the distribution of homeland security grants in the United States. The authors admit that before their research, they had assumed such grant allocations had more to do with political motivations than with the risk of terrorism.⁹² Using a preference analysis model, the authors revealed just the opposite. Their research shows that terrorism is in fact a strong basis for the allocation of homeland security funding and that political influence does not affect the outcomes significantly.⁹³ The complexity of politics and money and the perceptions that surround them will be ever-present, but the importance of challenging assumptions and basing decisions on fact is an essential consideration.

McEntire and Dawson, too, examine the public finance choice and the political element. They maintain that although a large percentage of emergency management funding comes from the federal government, many state and local governments allocate internal funding specifically to support emergency management from their own level of funding sources.⁹⁴ The allocations vary wildly from jurisdiction to jurisdiction based on how communities prioritize emergency management given their associated risks. Moreover, this internal funding can take many forms, from taxes, to bonds, to other types of fees and assessments.⁹⁵

In the context of allocating limited internal funding, conflicts may arise at a political level when it comes to weighing competing priorities.⁹⁶ If an elected official is in office only for a limited time, that official may decide to spend money on priorities that have a more immediate impact, such as infrastructure, schools, or economic development, as opposed to a long-term risk-reduction project that the official might not even complete or benefit from during the term in office.⁹⁷ This is not to say that the other priorities are unimportant. However, this example illustrates the constant challenge of emergency management—preparing for something that might

⁹² Tyler Prante and Alok K. Bohara, “What Determines Homeland Security Spending? An Econometric Analysis of the Homeland Security Grant Program,” *Policy Studies Journal* 36, no. 2 (May 2008): 254, <http://dx.doi.org/10.1111/j.1541-0072.2008.00264.x>.

⁹³ Prante and Bohara, 254.

⁹⁴ McEntire and Dawson, “The Intergovernmental Context,” 66.

⁹⁵ McEntire and Dawson, 66.

⁹⁶ McEntire and Dawson, 67.

⁹⁷ McEntire and Dawson, 68.

happen someday, but the timing is often unknown.⁹⁸ Therefore, it is a delicate balance and one that officials must integrate consistently over time to build a resilient system capable of handling the impacts of any size disaster.⁹⁹ In addition, the fiscal component, with resources committed from all levels of government, is key to the success of any emergency management program.

When disasters occur, local governments often have to reallocate financial resources to manage the fiscal stress.¹⁰⁰ In a 2019 journal article published in *Public Budgeting & Finance*, Chen examines the role financial planning can play in lessening the impacts of disasters.¹⁰¹ This study analyzed a variety of local financial indicators to assess the impact of disasters.¹⁰² It also considered funds set aside by the local government to mitigate the financial impacts experienced during most disasters.¹⁰³ The author finds the impact can be substantial from a financial perspective, especially with the increasing frequency of disasters.¹⁰⁴ One limit of this study is that it pulled data only from one state—New York—but the research spanned 17 years, so it does seem representative and relevant as an examination of that geographic area.¹⁰⁵ One significant conclusion of the study is that any type of fiscal reserve held the year before a disaster “strongly improves the financial condition” of a local government.¹⁰⁶

E. SUMMARY

This literature review presented significant works on the fiscal relationship between federal, state, and local governments to help advance the discussion about funding emergency management at the state level. This chapter presented the concepts of federalism, intergovernmental relations, emergency management, preparedness, and public finance to

⁹⁸ McEntire and Dawson, 68.

⁹⁹ McEntire and Dawson, 69.

¹⁰⁰ Gang Chen, “Assessing the Financial Impact of Natural Disasters on Local Governments,” *Public Budgeting & Finance* 40, no. 1 (Spring 2019): 27, <https://doi.org/10.1111/pbaf.12245>.

¹⁰¹ Chen, 24.

¹⁰² Chen, 22.

¹⁰³ Chen, 23.

¹⁰⁴ Chen, 22.

¹⁰⁵ Chen, 41.

¹⁰⁶ Chen, 41.

demonstrate thoroughness within the topic of study, although this did not constitute an exhaustive review. The review used foundational research on federalism and intergovernmental relations to identify patterns in policies and categorize elements that could relate to emergency management. A brief history on the field of emergency management was included, with a focus on the preparedness mission. Public finance literature specifically addressing emergency management was limited, although the review linked overall correlations. Resources such as government reports and scholarly articles theorizing the effectiveness of specific emergency management practices helped to establish an outline of the importance of this research. The expectation of the research was to formulate a uniform approach for funding emergency management at the state level. The analysis required an evaluative method as a precursor to identify the problem statement in an effort to arrive at a potential approach that might work for the majority of states.

III. DATA ANALYSIS

This thesis examines the fiscal relationship between federal, state, and local governments to consider how emergency management should be funded at the state level. This section describes and analyzes in detail the data collected to support this research. It reviews the history of federal support that created the current emergency management structure, including the grants and federal funding levels over the years. Reviewing the level of federal support and identifying any gaps that exist, the research compares existing funding sources for states' emergency management programs. The goal of this comparison is to evaluate the current environment and expose questions about the funding approach.

This research presents additional information about the amount of state funding invested in emergency management programs. The data analysis compares average state funding levels to the amount of federal emergency management funding received to determine an apportionment percentage. In evaluating how emergency management should be funded at the state level, data were pulled from well-established sources known as authorities in their respective fields. Survey responses from NEMA's *Biennial Report* supplied data for the research. The analysis then links the federal funding and NEMA data with other factors, such as population statistics and the number of declared disaster and emergency incidents, obtained from open sources such as the U.S. Census Bureau and FEMA, to identify potential patterns and correlations. The focus of this perspective is to review the funding sources and determine whether any states might be vulnerable under the present funding allocations.

In the Appendix, 13 tables organize the collected data:

- Tables 4–5 include population estimates for the United States;
- Table 6 includes EMPG funding allocations from FEMA;
- Table 7 includes NEMA data on the distribution of EMPG funding;
- Table 8 presents the EMPG funding data from NEMA in descending order;

- Table 9 includes NEMA data on annual operating budgets for state emergency management agencies;
- Table 10 combines specific data from Tables 6 and 9;
- Table 11 presents the combined data from Table 10 in sorted order;
- Table 12 combines specific data from Tables 6, 8, and 9;
- Table 13 presents the combined data from Table 12 in sorted order;
- Table 14 includes federal disaster and emergency declaration data from FEMA;
- Table 15 presents the FEMA declaration data in descending order; and
- Table 16 combines specific data from Tables 13 and 15.

This chapter explains each table in more detail to demonstrate its significance in the analysis of the fiscal relationship between federal, state, and local governments in emergency management. The data analysis comprises five sections covering U.S. population data, FEMA’s EMPG funding, NEMA’s *Biennial Report* data, FEMA’s disaster and emergency declarations, and a comparison of some of the metrics presented in a merged format.

A. POPULATION

Tables 4–5 in the Appendix include data from the U.S. Census Bureau on annual estimates of the resident population for the United States, organized by region, state, and Puerto Rico. Population is an important data set because billions of dollars in federal grant funds use it as a foundational metric to calculate allocations.¹⁰⁷ For that primary reason, this analysis begins with an examination of population data.

The U.S. Census Bureau is a federal government agency that has authority to collect certain types of information.¹⁰⁸ In turn, it produces statistical reports based on the information it collects.

¹⁰⁷ “U.S. Census Bureau at a Glance,” U.S. Census Bureau, accessed February 2, 2022, <https://www.census.gov/about/what/census-at-a-glance.html>.

¹⁰⁸ U.S. Census Bureau.

One of the key categories of this information is population data. As outlined by the U.S. Constitution, the U.S. Census Bureau must tally population and housing nationwide every 10 years, referred to as the decennial census.¹⁰⁹ All levels of government use the data gathered during this census to adjust congressional representation and redistrict legislative maps, along with their central role in distributing federal dollars.

The resident population data in Tables 4–5 include actual census counts from the 2010 decennial census, along with annual estimates through 2019. The decision to use previously available census data instead of data from the 2020 Census was made because federal funding allocations used in this research were based on the census data available at that time. Future funding will base allocations on the 2020 Census, so any future research on this subject should use new population data in its analysis. To calculate annual changes to the estimated population, the U.S. Census Bureau uses current data on births, deaths, and migration.¹¹⁰ This is an important process in keeping population data reasonably current between the decennial census counts.¹¹¹

Based on data from Tables 4–5 in the Appendix, the population of the United States increased by almost 20 million residents from the decennial census in 2010 to the annual estimate in 2019, from approximately 308 million residents to 328 million, growing over 6 percent. The South and West regions saw the most growth during that same period, with the highest population increases in Utah, Texas, Colorado, Florida, Nevada, Idaho, and Arizona. Conversely, the Northeast and Midwest regions saw only modest population growth, with several states actually losing residents, including Connecticut, Vermont, Illinois, and West Virginia.

Based on the 2019 population estimate of 328 million total residents shown in Tables 4–5, the South region made up 38 percent with 126 million residents; the West, 24 percent with 78 million; the Midwest, 21 percent with 68 million; and the Northeast, 17 percent with 56 million. The analysis calculated population percentage by dividing the subpart total by the whole data set

¹⁰⁹ U.S. Census Bureau.

¹¹⁰ U.S. Census Bureau.

¹¹¹ Andrew Reamer, *Census-Derived Datasets Used to Distribute Federal Funds*, Counting for Dollars 2020: Report #4 (Washington, DC: George Washington University, Institute of Public Policy, 2018), 8, <https://gwipp.gwu.edu/sites/g/files/zaxdzs2181/f/downloads/Counting%20for%20Dollars%20%234%20Census-derived%20Datasets%20rev%2005-19.pdf>.

total. States with the highest percentage of the 2019 population included California with 12 percent (40 million residents), Texas with nearly 9 percent (29 million), Florida with over 6 percent (21 million), and New York with nearly 6 percent (19 million). The following states were some of the least populated, all having less than .25 percent of the total 2019 resident population: Wyoming, Vermont, Alaska, and North Dakota.

Analyzed on its own, population might not reveal significant conclusions about how emergency management should be funded at the state level, but it is an essential factor in the overall view for this research and is revisited often throughout this chapter.

B. EMERGENCY MANAGEMENT PERFORMANCE GRANT

Focusing on only one federal funding stream helped narrow the scope of this thesis. This section examines the importance of FEMA's EMPG funding, due to its relative consistency over the years and broad application across all 50 states. The all-hazards scope of EMPG allows state and local programs the flexibility to develop capabilities across a wide variety of different threats and hazards. In addition, the consistent allocation and disbursement of the grant program provide state and local governments with a certain amount of predictability and reliability in funding to maintain ongoing operations. The focus on preparedness as a national goal and FEMA's use of EMPG funding to advance that goal form a key component of this research.¹¹²

State and local emergency management programs use EMPG funding to support ongoing preparedness initiatives. Preparedness is a major initiative within the emergency management mission. DHS administers a number of programs through FEMA to achieve the *National Preparedness Goal* of a more secure and resilient nation.¹¹³ The *National Preparedness Goal* is a policy document that sets the standard for the field, supported by planning frameworks addressing each phase of emergency management.¹¹⁴ Federal grants promoting preparedness initiatives, such as the EMPG, provide the foundational financial support for many emergency management programs.

¹¹² Department of Homeland Security, *National Preparedness Goal*.

¹¹³ Federal Emergency Management Agency, *EMPG Multi-Year Program Guidance*, 2.

¹¹⁴ Department of Homeland Security, *National Preparedness Goal*, 1.

Preparedness funding has been contributing to emergency management in the United States since the 1950s, under a variety of different labels, often known as “civil defense” during much of the early years.¹¹⁵ Over the most recent 20 years, the EMPG program has been a primary driver for building emergency management and preparedness capabilities at the state and local level. Annual EMPG appropriations from Congress have more than doubled in that time, from \$168 million in federal fiscal year (FY) 2002 to \$350 million in FY2019.¹¹⁶ In addition, federal funding that supports preparedness allows state and local governments to manage large numbers of disasters and emergencies without the additional assistance of federal resources.¹¹⁷

Congress allocates the total EMPG appropriation among all 50 states, the District of Columbia (Washington, DC), Puerto Rico, and the U.S. territories using a formula method, with all recipients receiving a certain base amount of the total available funding and the remaining balance distributed on a population-share basis.¹¹⁸ The population component of the EMPG distribution formula is an important factor in clearly understanding how emergency management is funded.

Table 6 in the Appendix section includes data on FY funding allocations for the EMPG from 2014 to 2019. The federal government’s FY runs from October 1 of one calendar year through September 30 of the next.¹¹⁹ The EMPG award typically has a period of performance that lasts three years.¹²⁰ This extended period of performance for each annual grant award gives recipients the opportunity to focus on long-term projects as opposed to only short-term pieces in an effort to spend the money quickly. These are some of the reasons that EMPG funding was chosen as an

¹¹⁵ House Committee on Transportation and Infrastructure, *Emergency Management Performance Grants Reauthorization*, House Report 110–322 (Washington, DC: House of Representatives, 2007), 2, <https://www.congress.gov/110/crpt/hrpt322/CRPT-110hrpt322.pdf>.

¹¹⁶ Shawn Reese, *Department of Homeland Security Preparedness Grants: A Summary and Issues*, CRS Report No. R44669 (Washington, DC: Congressional Research Service, 2016), 16, <https://digital.library.unt.edu/ark:/67531/metadc944812/>.

¹¹⁷ National Emergency Management Association, *2018 Biennial Report*, 3.

¹¹⁸ Federal Emergency Management Agency, *Notice of Funding Opportunity: Fiscal Year 2019 Emergency Management Performance Grant Program* (Washington, DC: Department of Homeland Security, 2019), 5, <https://www.fema.gov/grants/preparedness/emergency-management-performance/nofos>.

¹¹⁹ Federal Emergency Management Agency, 7.

¹²⁰ Federal Emergency Management Agency, 6.

analysis tool—because of its essential importance to building sustainable emergency management programs.

Unlike FEMA’s other grants—some targeted toward specific homeland security threats such as terrorism or the impacts of natural disasters—EMPG funding allows flexibility to address a wide range of all-hazards programs. It has also been a consistent, reliable federal grant funding source for state and local emergency management agencies, with \$350 million appropriated annually from FY2014 to FY2019 (see Appendix, Table 6). This stable appropriation amount annually results in minimal change from year to year for state allocations, with only minor shifts as the formula factors in updated population estimates each year. The reliability allows states an opportunity to plan and budget more effectively.

The cost-share requirement for EMPG funding is another reason it is such a valuable federal grant. Cost share, also referred to as grant match, is the amount of non-federal funding required, often stated in percentage terms, to receive an allocation from a federal grant award. A recipient must contribute a specific non-federal amount toward the same purpose to receive the federal funds. In the case of the EMPG, that cost-share requirement is 50 percent.¹²¹ This means emergency management agencies across the country match EMPG funding dollar for dollar, essentially doubling the return on investment from the federal perspective.¹²²

This section reviewed the history of federal support that created the current emergency management structure, including EMPG funding and the levels of support over the years. It linked the relationship between population data and the EMPG allocation formula, emphasizing the importance of this federal grant for states’ emergency management programs. The next section reviews data from NEMA’s *Biennial Report* about states’ allocation of EMPG funds and investments in emergency management programs.

¹²¹ Federal Emergency Management Agency, 7.

¹²² National Emergency Management Association and U.S. Council of International Association of Emergency Managers, *Emergency Management Performance Grants: Providing Returns on a Nation’s Investment* (Lexington, KY: National Emergency Management Association, 2019), https://www.iaem.org/Portals/25/documents/2019-EMPG-ROI%20Report_NEMA-IAEM_FINAL.PDF?ver=2019-03-20-115532-323.

C. NEMA'S *BIENNIAL REPORT*

This section presents information about the amount of state funding invested in emergency management programs, comparing both the federal EMPG distributions and the non-federal state-level contributions. Survey responses from NEMA's *Biennial Report* supplied the data for this analysis. The existing data set from NEMA's *Biennial Report* allowed an assessment of the federal funding percentages for all 50 states. In addition, the results of that comparison showed a wide range of differences, from emergency management programs funded with mostly federal funds and little state investment to those funded with a much higher percentage of state-level investment than federal funds.

NEMA defines itself as “a nonpartisan, nonprofit association dedicated to enhancing public safety by improving the nation’s ability to prepare for, respond to, and recover from all emergencies, disasters, and threats to our nation’s security.”¹²³ As an affiliate of the CSG, NEMA represents emergency management directors from the states, territories, and the District of Columbia.¹²⁴ As an association, NEMA lists several dynamic initiatives: it “provides national leadership and expertise in comprehensive emergency management; serves as a vital emergency management information and assistance resource; and advances continuous improvement in emergency management through strategic partnerships, innovative programs, and collaborative policy positions.”¹²⁵

For government representatives in the field of emergency management, NEMA serves as a recognized advocate for the advancement of emergency management policies at the national level.¹²⁶ NEMA's *Biennial Report*, its signature publication, “represents the most comprehensive compilation of state emergency management data available and highlights results from an in-depth survey conducted in 2017.”¹²⁷ Encompassing a wide collection of material related to emergency

¹²³ National Emergency Management Association, *2018 Biennial Report*.

¹²⁴ “NEMA Partners,” National Emergency Management Association, accessed March 24, 2022, <https://www.nemaweb.org/index.php/partners#csq>.

¹²⁵ “Who Are We?,” National Emergency Management Association, accessed March 24, 2022, <https://www.nemaweb.org/index.php/home/what-is-nema>.

¹²⁶ National Emergency Management Association.

¹²⁷ Karen L. Cobuluis, “NEMA 2018 Biennial Report Now Available,” Press Release, National Emergency Management Association, July 11, 2018.

management and homeland security, the *Biennial Report* contains “organizational structures and budgets, utilization of EMPG funding, how states pay for disasters, and many more aspects of ensuring states maintain the highest levels of preparedness.”¹²⁸ Published since 1996, this compilation remains a valuable resource for emergency management professionals and elected officials.¹²⁹

Tables 7 and 8 in the Appendix display survey responses from NEMA’s *Biennial Report*. One of the questions presented to state-level emergency management agencies as part of the NEMA survey that informed the *Biennial Report* was “How are EMPG funds allocated in your state?”¹³⁰ Table 7 presents the responses, listed alphabetically by state and territory. The distribution includes categories for an allocation to local governments (counties or cities), tribal governments, other state agencies, other entities, and the amount retained by the state emergency management agency, shown in percentage breakouts, with a total percentage column added. Table 8 presents the same data, only in descending order of the percentage retained by the state’s emergency management agency. For this research, the percentage of EMPG funds retained by the state emergency management agency is the most important metric from this data set. This analysis focuses on data from the states, as opposed to the territories, because this thesis examines the fiscal relationship between federal, state, and local governments to help advance the discussion about how emergency management should be funded at the state level.

A review of the percentage of EMPG funds retained by state emergency management agencies reveals a wide range of distribution. In examining the data, eight states retain over 70 percent of EMPG funding with the state emergency management agency, including Texas, Georgia, Michigan, New Jersey, Hawaii, Massachusetts, and Vermont, as well as the highest, Rhode Island, which keeps 85 percent (see Appendix, Tables 7 and 8). On the other hand, only four states retain less than 30 percent of EMPG funding with the state emergency management agency. These are Oklahoma, Oregon, and Virginia, along with Nebraska, which allocates all of its EMPG funds to other agencies or jurisdictions. Ten state emergency management agencies

¹²⁸ Cobuluis.

¹²⁹ Cobuluis.

¹³⁰ National Emergency Management Association, *2018 Biennial Report*, 27.

retain between 55 and 70 percent of EMPG funds, and 12 agencies keep between 30 and 45 percent. It is the group of states in the middle, though, that may expose a potential solution.

On average, state emergency management agencies retain 52 percent of EMPG funds, with local governments receiving a large part of the remainder, at 45 percent (excluding the District of Columbia, Puerto Rico, and the territories). Sixteen states make up the largest part in the middle range, retaining from 45 to 55 percent of EMPG funds. Expanding the range only slightly to include states that retain 40 to 60 percent yields 25 emergency management agencies, half of all states. This information is important because it may provide insight into which states rely too heavily on EMPG funding to maintain their state emergency management programs, as opposed to those that can pass most of the funds on to the local level. Alternatively, the predominance of the states in the middle may help advance the discussion about what balance of funding maximizes the effectiveness of emergency management programs at the state level.

To bring the picture into sharper focus, the analysis included a review of the non-federal funding used to support state emergency management agencies. These data show the balance between the federal EMPG funding and other non-federal funding contributed by the states. In response to NEMA's *Biennial Report* survey, state-level emergency management agencies reported their annual operating budgets excluding any federal funding sources, as detailed in Table 9 of the Appendix. The data include multiple years of states' annual operating budgets to even out any outlying amounts.

Because the data did not adjust for state population or other similar factors, the amounts span a wide range, with some states spending less than one million dollars annually for emergency management while others investing tens of millions. Based on the average amounts, the total combined investment at the state level for emergency management was almost \$400 million annually. This figure calculates to approximately \$7.7 million dollars per state on average although, as mentioned previously, this figure does not present an accurate reflection given the wide range of differences from state to state. A better way to analyze these data is to compare them side-by-side with EMPG funding allocations by state. The comparison of merged data appears later in this chapter.

D. FEMA’S FEDERAL DISASTER AND EMERGENCY DECLARATIONS

A factor that may influence how emergency management agencies are funded at the state level is the frequency of disasters and emergencies that occur in a particular state. Even though the focus of this thesis concentrates on the preparedness benefits of EMPG funding, as opposed to disaster response funding, the number of declared disasters and emergencies in a state is an important consideration and one that this section explores in more detail. This section first presents the federal disaster and emergency declarations data from FEMA over 10 years, from 2010 to 2019. The subsequent section cross-references FEMA’s declarations data with the annual operating budget and EMPG funding to reveal any potential correlations or findings.

FEMA operates as a component of DHS, serving as the coordinating agency at the federal government level to leverage all available federal resources during disasters and emergencies. This federal support supplements resources from the local and state levels that are overwhelmed during the response phase of an incident. To activate these federal resources, the governor from the affected state must request assistance from the president of the United States through FEMA.¹³¹ The president reviews the request based on the type, size, and severity of the incident, and whether the resulting damage exceeds the resources of the local and state governments.

Based on that review, the president determines one of two declarations. Both authorize supplemental federal assistance for the affected jurisdictions, but they are distinct in the type of incident and level of federal support provided.¹³² Under an emergency declaration, a state receives federal support to save lives and protect property, but the categories of assistance for such a declaration are limited, both for assistance related to public infrastructure and for assistance to individuals and households. Under a major disaster declaration, which typically applies to natural incidents, such as hurricanes, floods, and earthquakes, all of FEMA’s disaster assistance programs become available, including hazard mitigation assistance used to prevent or reduce future damage due to natural hazards. The following paragraphs analyze the federal disaster and emergency declarations data compiled in Tables 14 and 15 of the Appendix.

¹³¹ “How a Disaster Gets Declared,” Federal Emergency Management Agency, accessed February 11, 2022, <https://www.fema.gov/disaster/how-declared>.

¹³² Federal Emergency Management Agency.

As noted in the tables, the numbers include major disaster and emergency declarations only. FEMA uses another type of declaration for fire management and suppression incidents. The data set intentionally excludes these types of declarations because of the significant differences in the incidents and the declaration processes. Table 14 presents FEMA's disaster and emergency declarations by state and territory in alphabetical order for each year from 2010 to 2019, along with a column calculating the sum of the declarations over 10 years. The table also includes the totals for each year and the grand total of all declarations for the time. Table 15 presents the same data, only in descending order by total number of declarations by state/territory.

Federal major disaster and emergency declarations during the period totaled 722, an average of approximately 72 per year, with a range spanning a high of 128 declarations in 2011 to a low of 46 in 2015. Six states experienced 20 or more disasters or emergencies over the course of 10 years, including Mississippi, South Dakota, West Virginia, Iowa, Oklahoma, and California, with the two latter states experiencing the most at 27 and 28, respectively. States with fewer than 10 disasters or emergencies totaled 14, with Indiana and Nevada having the least at only four and three, respectively. A majority of states (30) made up the remaining range, from 10 to 19 disasters or emergencies, averaging approximately one to two disasters or emergencies per year. Adding FEMA's disaster and emergency declarations was just one way to incorporate a risk component into the analysis.

If the frequency of real-world incidents spurs states with a high number of disaster declarations to ready themselves for the next disaster, states that experience few incidents on a regular basis must rely on the training and exercise component of preparedness to sharpen their skills. It is a common understanding that if acquired skills are not tested and used regularly, they will be lost (despite what they say about riding bicycles). Experience managing an emergency is no different; if an emergency management agency does not use the skill during an actual incident, it must practice the skill to maintain it. This demonstrates why a focus on preparedness is key for states with a low number of incidents. Although it is difficult to draw any other conclusions based on the declaration data alone, these data are included in the following section for additional analysis.

E. COMPARISON OF MERGED DATA

This section explains the remaining data tables from the Appendix. These tables combine some of the metrics already presented in separate tables into a merged format to demonstrate their relevance in the analysis of the fiscal relationship between federal, state, and local governments in emergency management. Tables 10 and 11 combine elements from Tables 6 and 9. Tables 12 and 13 combine elements from Tables 6, 8, and 9. As a reminder, Table 6 includes data on funding allocations for the EMPG from FY2014 to FY2019. The EMPG has been a consistent and reliable federal grant funding source for state and local emergency management agencies, with \$350 million appropriated annually from FY2014 to FY2019. A review of the percentage of EMPG funds retained by state emergency management agencies reveals a wide range of differences, from emergency management programs funded with mostly federal funds and little state investment to those funded with a much higher percentage of state-level investment than federal funds. Tables 10, 11, 12, and 13 use the EMPG funding allocations from FY2019.

Tables 7 and 8 display survey responses from NEMA's *Biennial Report*. One of the questions presented to state-level emergency management agencies as part of the survey that informed NEMA's *Biennial Report* was "How are EMPG funds allocated in your state?" Table 7 presents the responses, listed alphabetically by state and territory. The distribution includes categories for an allocation to local governments (counties or cities), tribal governments, other state agencies, other entities, and the amount retained by the state emergency management agency, shown in percentage breakouts, with a total percentage column added. Table 8 presents the same data, only in descending order of the percentage retained by the state emergency management agency. For this research, the percentage of EMPG funds retained by the state emergency management agency is the most important metric from this data set. Tables 12 and 13 incorporate the percentage of EMPG funds retained by the state emergency management agency, drilling down to a deeper level of analysis.

To bring the picture into sharper focus, the analysis included a review of the non-federal funding used to support state emergency management agencies. As reported by state-level emergency management agencies in response to NEMA's *Biennial Report* survey, the data included in Table 9 present the annual operating budget excluding any federal funding sources. The data include multiple years of states' annual operating budgets to even out any outlying

amounts. Tables 10, 11, 12, and 13 use the average operating budget amounts from Table 9. These merged data show the balance between the federal EMPG funding and other non-federal funding contributed by the states.

Tables 10 and 11 in the Appendix compare the average state funding levels to the amount of federal emergency management funding received to determine an apportionment percentage. This research determined the apportionment percentage by adding the average operating budget amount (Table 9) to the EMPG FY2019 allocation (Table 6) to calculate the total annual funding for emergency management. Then, each part was divided by the total to get the apportionment percentage. Tables 12 and 13 differ in that they incorporate another step into the calculation, the percentage of EMPG funds retained by the state emergency management agency, as shown in Tables 7 and 8. The focus of this perspective was to review the funding sources to determine whether any states might be vulnerable under the calculated funding apportionments. The distributions varied wildly from jurisdiction to jurisdiction based on how each community prioritized emergency management, given their associated risks.

Table 10 includes dollar figures for the average operating budget, EMPG FY2019 allocation, and total annual funding for emergency management programs in each state and territory. Table 10 lists the data alphabetically by state/territory and shows the calculated apportionment percentage for each, along with the grand total at the end of the table for all data columns. Table 11 presents the same data in ascending order of EMPG FY2019 allocation percentage. This view reveals states that support emergency management by investing non-federal funds vis-à-vis their EMPG funding allocation. Some states invest much more than their EMPG allocation while others spend considerably less, relying heavily on federal funds. Because of the wide range of differences, the analysis does not identify any significant correlations. Similarly, incorporating the percentage of EMPG funds retained by state emergency management agencies from Tables 7–8, as presented in Tables 12–13, only shifts the calculated apportionment percentage, resulting in minor changes overall.

One potential finding in sorted Tables 11 and 13 is the number of states with an average operating budget less than their EMPG allocation. As shown in Table 11, 38 states have an average operating budget of less than 50 percent, which means, according to the data presented, they might not fully meet the 50 percent EMPG match requirement. In Table 13, when the calculation factors

in the percentage of EMPG funds retained by state emergency management agencies, the number of states is fewer, only 20. Moreover, this analysis does not account for EMPG funds transferred from states to other jurisdictions or agencies that may have difficulty meeting the match requirements.

This observation is not conclusive, however, as there are other possible explanations not evident in the data collected for this research. Many factors go into how a state meets the match requirement, such as the use of other non-federal funds that support state emergency management agencies and can be used as third-party, in-kind cost-share contributions. Nonetheless, such a finding may still be significant considering the federal government's intention to increase its return on investment. Such observations raise the question whether the federal government is actually getting the dollar-for-dollar value it expects from a 50 percent grant match requirement—and may be another area that warrants further study.

The review of the final tables incorporates FEMA's declarations to analyze the merged data from a different perspective. This final analysis section cross-references FEMA's declarations data with annual operating budgets and EMPG funding to uncover any potential correlations or findings. The frequency of disasters and emergencies in a particular state may influence how emergency management agencies are funded at the state level. Even though this thesis concentrates on the preparedness benefits of EMPG funding, as opposed to disaster response funding, the number of declared disasters and emergencies in a state is an important consideration and one that this section explores in more detail. Adding FEMA disaster and emergency declarations is also a way to incorporate a risk component into the analysis.

As a reminder, Table 15 in the Appendix presents the federal disaster and emergency declarations data from FEMA over 10 years, from 2010 to 2019. As noted in the table, the numbers include only major disaster and emergency declarations. FEMA uses another type of declaration for fire management and suppression incidents. The data set intentionally excludes these types of declarations because of the significant differences in the incidents and the declaration processes. The table includes a column that calculates the sum of declarations over 10 years, along with totals for each year and the grand total of all declarations for the period. Table 15 presents the data in descending order of total declarations by state/territory.

Table 16 in the Appendix merges NEMA's average operating budget amount per state, the percentage of EMPG funds retained by state emergency management agencies as presented in Table 13, and FEMA's declarations data from Table 15. Table 16 displays the first two components from Table 13 in ascending order of EMPG funds percentage retained by state emergency management agency. This view shows states that support emergency management by investing non-federal funds vis-à-vis their EMPG funding allocations. Table 16 also includes FEMA's declarations data from Table 15 in descending order, side-by-side with NEMA's average operating budget amount per state and the percentage of EMPG funds retained by state emergency management agencies.

Following a review of the merged data in Table 16, the states were organized into four different groups, summarized in Tables 1 and 2. The high and low ranges for two of the data components determined the groupings. The first data component considered NEMA's average operating budget apportionment percentage. The high range for this component included states with an average operating budget apportionment greater than or equal to 50 percent (30 states). The analysis applied a 50 percent threshold to coincide with the EMPG's cost-share requirement. The low range for this component included states with an average operating budget apportionment of less than 50 percent (20 states).

The second data component considered the total number of FEMA disaster and emergency declarations per state. The high range for this component included states with more than 14 total declarations (24 states). The analysis used a 14-declaration threshold because it was the average number for the state data presented, so above average and below average represented the high and low ranges. The low range for this component included states with 14 or fewer total declarations (26 states). The matrix in Table 1 shows this breakdown in a grid format. The following paragraphs explain the four groups.

Table 1. Matrix of Group Designations from Data in Table 16

		Declarations		
		High	Low	States
Average Operating Budget	High	17 Group 1	13 Group 2	30
	Low	7 Group 3	13 Group 4	20
	States	24	26	50

The first group, designated as Group 1 or the high-high group, includes states with an average operating budget apportionment of 50 percent or higher combined with more than 14 declarations, totaling 17 states. These states invest a greater amount of non-federal funds in their emergency management programs and have a higher number of major disaster and emergency declarations, so this correlation seems to make sense: if a state has a high number of incidents, theoretically, it should have a robust emergency management program to handle the incidents. The next group, designated as Group 4, is the low-low group, totaling 13 states. These states have average operating budget apportionments of less than 50 percent combined with 14 or fewer total declarations. This group of states may not invest enough in their emergency management agencies to meet the EMPG cost-share requirement, which is a concern but not conclusive because there are other ways to meet the grant match condition. Furthermore, these states have fewer major disaster and emergency declarations to manage. The cost-share concern is discussed in more detail later.

The other two seemingly mismatched groups, Group 2, the high-low group (13 states), and Group 3, the low-high group (7 states), raise the most level of uncertainty. On the one hand, Group 2 includes states with average operating budget apportionments of 50 percent or higher combined with 14 or fewer total declarations, totaling 13 states. These states invest a greater amount of non-federal funds in their emergency management programs but have fewer major disaster and emergency declarations. This combination does not seem to match—if a state has only a few incidents, it might not need to a large emergency management program. Funding might be allocated to other priorities while still maintaining an effective emergency management program.

Alternatively, these states may have fewer federally declared major disaster and emergency declarations because of their greater state investment, which may help them handle more incidents at the local and state level. Group 3, on the other hand, includes states with average operating budget apportionments of less than 50 percent combined with more than 14 total declarations, totaling seven states. This combination may be the most concerning—states with a high number of incidents but lower spending on their emergency management programs. These seven states are Arkansas, Kansas, New York, Oklahoma, South Dakota, Texas, and Vermont. The emergency management agencies in these seven states may be vulnerable, given that their state funding levels for emergency management may not be enough to meet the federal cost-share requirements, not to mention they experienced a greater number of major disaster and emergency declarations.

Table 2. Grouping of States Based on Analysis of Data in Table 16

High-High Group 1 (17)	High-Low Group 2 (13)	Low-High Group 3 (7)	Low-Low Group 4 (13)
Alabama	Alaska	Arkansas	Arizona
California	Connecticut	Kansas	Colorado
Florida	Delaware	New York	Georgia
Iowa	Illinois	Oklahoma	Hawaii
Louisiana	Indiana	South Dakota	Idaho
Massachusetts	Montana	Texas	Kentucky
Minnesota	New Mexico	Vermont	Maine
Mississippi	Ohio		Maryland
Missouri	Oregon		Michigan
Nebraska	Pennsylvania		Nevada
New Hampshire	Virginia		Rhode Island
New Jersey	Wisconsin		South Carolina
North Carolina	Wyoming		Utah
North Dakota			
Tennessee			
Washington			
West Virginia			

One potential finding in the data is the number of states with an average operating budget less than their EMPG allocation, which means, according to the data presented, these states might not fully meet the 50 percent EMPG match requirement. As stated previously, this observation is inconclusive, as there are other possible explanations not evident in the data collected for this research. Many factors go into how a state meets the match requirement, such as the use of other non-federal funds that support state emergency management agencies and can be used as third-party, in-kind cost-share contributions. Nonetheless, such a finding may still be significant considering the federal government's intention to increase its return on investment. Such observations raise the question whether the federal government is actually getting the dollar-for-dollar value it expects from a 50 percent grant match requirement—and may be another area that warrants further study. In addition, the frequency of disasters and emergencies in a particular state may influence how emergency management agencies are funded at the state level. Adding FEMA's disaster and emergency declarations as a data metric was one way to incorporate a risk component into the analysis.

The analysis in this chapter separated the states into different groups based on several data metrics to identify potential vulnerabilities. This categorization revealed a group of states that may be vulnerable because they do not seem to invest proportionately in the areas of preparedness to readily manage the number of incidents they experience on an annual basis. The emergency management agencies in these seven states, as identified in Group 3 (Table 2), may be vulnerable, given their average operating budget apportionment, which might not be enough to meet the EMPG cost-share requirements, and higher numbers of major disaster and emergency declarations. To understand the potential issue more completely, additional research would need to be conducted in detail on those particular states; however, such an undertaking is beyond the scope of this research and one that must be carried forward in a future study.

IV. ALTERNATIVE PERSPECTIVES

This chapter considers the fiscal aspect of emergency management and examines the topic by presenting alternative perspectives from the federal, state, and local level. An assessment of the research led to suggestions for how to balance the alternative perspectives, which appear to compete in some respects but also share some common ground. After analyzing the research materials and supporting documentation, the study of the alternative perspectives demonstrates the potential outcomes and conflicting trade-offs. These alternative perspectives are important as they question accepted government roles and how they relate to the large sums of federal dollars supporting the field of emergency management.

The review of alternative perspectives from the federal, state, and local level focuses on subjects that emerged as a result of the research and the data analysis. Some of the major themes include the roles for each level of government, the shared power structure, expectations from the public, and the funding for emergency management. Each perspective describes the themes in more detail from that point of view, with a synopsis of common themes and areas where the perspectives differ included at the end of the chapter. Consequently, there is a need to consider the alternative perspectives between federal, state, and local governments about how emergency management should be funded at the state level.

A. FEDERAL

As discussed in the research, each level of government has a defined role in emergency management. According to FEMA's guidelines, "The most effective strategies for emergency management are those that are federally supported, state managed, and locally executed."¹³³ The federal government supports emergency management through grant funding to advance preparedness, mitigation, and homeland security initiatives. The federal government also provides response and recovery assistance after large-scale disasters and emergencies based on an approved declaration from the president. In addition to funding, the role of the federal government in

¹³³ Federal Emergency Management Agency, *2018–2022 Strategic Plan*, 8.

emergency management includes developing national-level priorities, promoting common industry standards, and providing access to resources with economies of scale.

This research also reviewed the shared power structure between the federal government and state governments, and the effects on local jurisdictions. The federal government did not have substantial power as the Union was forming. Over the years, however, the federal government has gained increasingly more power, allowing it to provide support a variety of public service needs, but often specific mandates and requirements accompany that support. This increased federal support can in turn limit the states' ability to decide how best to use the funding. Conversely, priorities set at the federal level may often lead to efficiencies as consistent standards set a certain benchmark for programs nationwide.

Nevertheless, the data seem to suggest that many states rely on federal funding to maintain their emergency management programs. The federal government's support role essentially serves as a safety net for emergency management, especially when large incidents occur. During a large-scale disaster, the public expects, as do many state and local officials, the federal government to support the incident with access to significant funding and resources. That assumption is not always true because rules determine which situations trigger federal assistance. And even when federal assistance is available, it may not arrive quickly. This does not, however, diminish the critical role federal assistance plays in supporting incidents that exceed the available resources at the state and local level.

Federal funding is a key component in supporting emergency management programs throughout the country, not only after the fact for disaster response and recovery but also for preparedness efforts. Congress allocates preparedness funding through EMPG appropriation using a formula method, with all recipients receiving a certain base amount of the total available funding and the remaining balance of the funds distributed on a population-share basis.¹³⁴ The cost-share requirement for EMPG funding is another reason it is such a valuable federal grant. A recipient must contribute a specific non-federal amount toward the same purpose to receive federal funds. In the case of the EMPG, that cost-share requirement is 50 percent.¹³⁵ This means emergency

¹³⁴ Federal Emergency Management Agency, *Notice of Funding Opportunity: Fiscal Year 2019*, 5.

¹³⁵ Federal Emergency Management Agency, 7.

management agencies across the country match EMPG funding dollar for dollar, essentially doubling the return on investment from the federal perspective.¹³⁶ In fact, federal funding that supports preparedness allows state and local governments to manage large numbers of disasters and emergencies without the additional assistance of federal resources, which increases the resiliency of the nation overall.¹³⁷

B. STATE

This thesis has examined the fiscal relationship between federal, state, and local governments to help advance the discussion about how emergency management should be funded at the state level. A central role of the states within the emergency management process is to manage the connection between federal authorities and local officials. When the size or complexity of an incident overwhelms local resources, the state works with the local government to coordinate additional resources. Additional assistance can come from neighboring local governments, state-level emergency support functions, or other states through interstate agreements. Finally, if the incident reaches a level at which the state cannot coordinate sufficient resources or does not have access to the necessary resources, then the state can request federal assistance. The states fill an important role in building partnerships at all levels of government and managing relationships at the federal and local levels.

In the context of the shared power structure, the collective authority of the states balances the authority held by the federal government. Each level of government has a defined role, and within that role is an understanding of the division of power between the levels of government. This separation of power allows for checks and balances that limit authority, but with those limitations also comes a reduced level of flexibility and adaptability in the process. States must maintain a cooperative relationship with federal partners, particularly if any significant amount of federal funds is involved.

Many state emergency management agencies play a behind-the-scenes role of which the general public is not always aware, although the increasing frequency of emergencies coupled with

¹³⁶ National Emergency Management Association and U.S. Council of International Association of Emergency Managers, *Emergency Management Performance Grants*.

¹³⁷ National Emergency Management Association, *2018 Biennial Report*, 3.

the long-lasting COVID-19 pandemic may have brought them more into the spotlight. Generally speaking, the public’s expectations for state-level emergency management may be low due to a lack of awareness or understanding of its role. However, the public does expect state officials to act on behalf of affected communities, especially when it comes to taking responsibility and requesting federal resources. Such a dynamic emphasizes the value of state emergency management agencies’ cultivating partnerships within the state structure, too—from the governor’s office to state finance to all of the emergency support functions—to ensure a coordinated effort that reassures the public during times of crisis.

State governments use the fiscal relationship with FEMA to support emergency management programs. All states receive an allocation of federal funds to promote nationwide preparedness and build consistency within the emergency management mission across the country.¹³⁸ Many states also distribute federal funding to local governments to maintain emergency management capabilities at the city and county level. States also contribute to their own emergency management mission with revenue generated at the state level.¹³⁹ Some states invest much more than their federal allocation while others spend considerably less, thus relying heavily on federal funds. But the difference in those state-level contributions is staggering—in some states as little as 11 percent of the total emergency management operating budget is funded with non-federal state funds, with other states increasing the investment to as much as 78 percent (see Appendix, Table 11). This disparity is concerning given the critical role of emergency management in helping communities during emergencies and disasters.

C. LOCAL

“All emergencies are local” is a phrase heard often in the field.¹⁴⁰ For example, when an incident occurs, local government handles the initial response. The states then assist with coordinating additional resources as local capacities are overwhelmed. The federal government participates in a much more supportive role, getting involved only at a significant operational level during major disasters. In terms of intergovernmental responsibilities during a disaster, many

¹³⁸ Federal Emergency Management Agency, *EMPG Multi-Year Program Guidance*.

¹³⁹ National Emergency Management Association, *2018 Biennial Report*, 5.

¹⁴⁰ Lindsay, “U.S. Disaster Policy,” 19.

scholars and practitioners agree that the local level handles the initial response. This approach places the primary responsibility on local government to handle emergencies at its level whenever possible.

Therefore, regarding emergency management, the local government's role is to execute. During a disaster or emergency, the local community knows about the issue earliest and reacts fastest with its first-responder resources. Most local governments typically build emergency response services into their public safety budgets, through law enforcement, fire, and emergency medical services, as well as public works and sanitation services.¹⁴¹ Nevertheless, often a local government's resources are limited to the number of first responders available or the necessary type or quantity of equipment, so the local level cannot adequately contain an incident. This is when additional assistance may be needed from mutual aid and the state, and eventually the federal government, depending on the size and complexity of the incident.

Local governments obviously have authority within their own communities, but in the larger shared power structure, they have less control than the federal and state governments. Then again, if a local government works within the emergency management structure, especially when federal funding is involved, it can use those resources to increase its local capabilities and capacity. A local government that can manage the time and effort required to maximize federal funding has an advantage in applying the funds effectively. This is an important point as it relates to public perception. Residents who perceive their local government resources as robust and ready to handle emergency situations will likely display support for those resources, unless that attention detracts from other more immediate needs in the community.

The federal government offers limited funding sources within the emergency management environment directly to local governments. Most state emergency management agencies manage these funds and pass them through to the local level. As stated previously, this dynamic places a degree of responsibility on the local government to comply with federal and state mandates for the funding, which often limits the flexibility to address specific priorities at the local level. Local governments may also have difficulty meeting the cost-share match requirements to accept federal grant funds. Nonetheless, if local governments are expected to be the first line of defense, perhaps

¹⁴¹ Chen, "Assessing the Financial Impact of Natural Disasters on Local Governments," 5.

more funding should be passed through to the local level to build increased capabilities, so communities can handle more incidents without state or federal assistance. However, these considerations are beyond the focus of this thesis, and much more research would be required to understand the critical role local governments truly play in emergency management.

D. CONFLICTS AND COMMON GROUND

This examination of alternative perspectives has revealed some interesting common themes, along with areas where the perspectives differ and occasionally where they overlap. Two major themes center on building a culture of preparedness and the associated federal funding. Federal grants promoting preparedness initiatives provide the foundational financial support for many emergency management programs. State and local emergency management programs use federal grant funding to support ongoing preparedness initiatives. Whether the incentive of federal funding solely drives this shared goal is unclear; but promoting and building preparedness capabilities appear to be a common goal shared by all levels of government as a key enterprise within the emergency management mission.

Developed with the help of federal grant dollars, emergency management programs have advanced public safety capabilities throughout the country, across federal, state, and local boundaries. There are opportunities to use federal funding to address a large swath of threats, but a large portion may be required to fall within the sphere of influence surrounding the federally identified priority areas. Federal support provides for a variety of public service needs, but specific mandates and requirements often accompany that support. This increased federal support can in turn limit the ability of states to decide how best to use the funding. Conversely, priorities set at the federal level may often lead to efficiencies, as consistent standards set a certain benchmark for programs in terms of developing nationwide priorities and promoting common industry standards. Plus, the federal government must justify the use of taxpayer dollars through this accountability measure.

Many states focus on an all-hazards approach within preparedness to tailor programs based on specific risks identified in their areas, which do not always align categorically with federal mandates. Nevertheless, the data seem to suggest that many states rely on federal funding to maintain their emergency management programs. The support role by the federal government

essentially serves as a safety net for emergency management. Most state emergency management agencies manage these funds and pass them through to the local level. As stated previously, this pass-through relationship places a degree of responsibility on the local government to comply with federal and state mandates for the funding, which often limits the flexibility to address specific priorities at the local level. Even though many state and local emergency managers would probably welcome more federal funding, all the while they would be arguing for less strings attached. Furthermore, the restrictions imposed between different levels of government illustrate how policy formation can affect the cooperative relationships necessary to deal with these emergency coordination efforts.

The role of each level of government highlights another theme that can conflict but requires a common understanding for it to work well. Separation within the shared power structure allows for checks and balances that limit authority, but with those limitations comes a reduced level of flexibility and adaptability in the intergovernmental process. States must maintain a cooperative relationship with federal partners, particularly if any significant amount of federal funding is involved. In addition, the states fill an important role in building partnerships at all levels of government and managing relationships between the federal and local levels.

In this federalism context, the sharing of power for potentially competing goals highlights the alternate perspectives from different levels of government as part of the emergency management mission. If defined roles were applied in a more structured, uniform manner, the increased clarity around expectations and responsibilities would greatly improve the response to emergencies and disasters. During blue-sky days, governments may stay within their defined lanes, but these roles have a tendency to blur in times of emergencies and disasters. This review of alternative perspectives demonstrates the complexity of any potential recommendations or solutions in determining how emergency management should be funded.

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V. FINDINGS AND CONCLUSIONS

This thesis closes with an evaluation of findings, policy implications, and recommendations. It offers recommendations for the states determined potentially vulnerable based on the results of the data analysis. It also presents a policy analysis with implementation methods for the findings identified. The analysis concludes with a summary of the purpose of this research and its importance in the emergency management enterprise in an effort to gain a better understanding of the fiscal relationship between federal, state, and local governments.

A. EVALUATION

This thesis examined the fiscal relationship between federal, state, and local governments to help advance the discussion about how emergency management should be funded at the state level. Reviewing the level of federal support and identifying gaps, the research compared existing funding sources for states' emergency management programs. The goal of this comparison was to evaluate the current environment and expose questions about the funding approach. The analysis then linked the federal funding and state emergency management data with other factors, such as population statistics and the number of declared disaster and emergency incidents, to identify potential patterns and correlations. The focus of this perspective was to review the funding sources and determine whether any states might be vulnerable under the present funding allocations.

This thesis also presented and analyzed alternative perspectives from each level of government to demonstrate the complexity of any potential recommendations or solutions. The evaluation of the research led to suggestions on how to balance the alternative perspectives, which appear to compete in some respects but also share some common ground. The initial expectation of the research was to formulate a uniform approach for funding emergency management at the state level. The analysis required an evaluative method as a precursor to identify the problem statement in an effort to arrive at a potential approach that might work for the majority of states.

A data analysis of the percentage of EMPG funds retained by state emergency management agencies revealed a wide range of differences, from emergency management programs funded with mostly federal funds and little state investment to those funded with a much higher percentage of state-level investment than federal funds. In order to see the picture more clearly, the analysis

also included a review of the amount of non-federal funding used to support state emergency management agencies. The distributions varied wildly from jurisdiction to jurisdiction based on how each community prioritizes emergency management given its associated risks. Some states invested much more than their EMPG allocation while others spent considerably less, relying heavily on federal funds. Because of the wide range of differences, the analysis did not identify any significant correlations.

One potential finding in the data was the number of states that had an average operating budget less than their EMPG allocation, which meant, according to the data presented, these states might not fully meet the 50 percent EMPG match requirement. Obviously, this observation was inconclusive, as there are other possible explanations not evident in the data collected for this research. Many factors go into how a state can meet the match requirement, such as the use of other non-federal funds that support state emergency management agencies and can be used as third-party, in-kind cost-share contributions. Such a finding may still be significant considering the federal government's intention to increase its return on investment, and it raises the question whether the federal government is actually getting the dollar-for-dollar value it expects from a 50 percent grant match requirement.

In addition, the frequency of disasters and emergencies that occur in a particular state may influence how emergency management agencies are funded at the state level. Adding FEMA's disaster and emergency declarations as a data metric was one way to incorporate a risk component into the analysis. The analysis separated the states into different groups based on several data metrics to identify potential vulnerabilities. This categorization revealed a group of states that might be vulnerable because their investments in areas of preparedness are disproportionate to the annual number of incidents in their states. To understand the potential issue more completely, further research needs to be conducted on those particular states; however, such work is beyond the scope of this research and must be carried forward in a future study.

Several areas for potential research are implied in this thesis. One area involves taking a closer look at the impacts on and perspective of local government. Another interesting avenue might be emergency management funding in the context of long-term decision-making for political leaders and elected officials, who are often concerned about short-term priorities that impact their time in office. Additional factors could also be added to the analysis to provide more depth on a

specific topic, such as comparing the funding data with different federal grants, considering alternative metrics like population density and visitor volume, or looking at other types of risk measurements to explore comparisons and correlations. Diving deeper, future research could examine the historical perspective to get a better understanding of what shaped the policy for allocating federal grant funds at the state and local levels. Going forward, the COVID-19 pandemic and other significant events may change that policy—yet another subject for future research.

B. POLICY IMPLICATIONS

This section presents a variety of policy implications that explore how emergency management should be funded considering the alternative perspectives from each level of government and the evaluation of the data analysis. The demand for essential emergency managers will only intensify with ever-increasing disasters and an uncertain future.¹⁴² This point is relevant because the policies passed down from the federal level, especially regarding legislation and funding, have a significant impact on what the states can then implement and pass through to the local level. To link the fiscal relationship between federal, state, and local governments, the following paragraphs consider policy implications such as the government’s role in emergency management, politics, leadership, uncertainty, and the opportunity costs of limited resources.

The different roles of government and the influence of politics in policy considerations emerged from this research. The intersection of governmental relations with political officials may lead to misunderstandings and finger pointing. More often than not, emergencies and disasters cause times of great uncertainty. Several significant works from the literature review highlighted the importance of leadership during a crisis. These arguments highlight the importance of each level of government knowing its defined role while also coordinating regularly to understand how those roles can change and overlap during a disaster. Strong political leaders must put policies and procedures in place well before an incident occurs to be successful. The preparedness measures taken by political officials before a crisis emphasize the difference between effectively leading during a crisis and just managing the aftermath. The critical role of preparedness is important for all levels of government officials, from federal, to state, to local.

¹⁴² Elbein, “Emergency Managers Face a Chaotic and Uncertain Future.”

The complexity of politics and money and the perceptions that surround them will be ever-present. In the context of allocating limited internal funding, conflicts may emerge at a political level when it comes to weighing competing priorities.¹⁴³ As elected officials are only in office for a limited time, they often make decisions to spend money on priorities that have a more immediate impact, such as health care, schools, or economic development, as opposed to long-term risk-reduction projects they might not even complete or benefit from during their term in office.¹⁴⁴ This is not to say that those other priorities are unimportant. However, this example illustrates the constant challenge of emergency management—preparing for something that might happen someday, but the timing is often unknown.¹⁴⁵ Budgeting for outcomes that are uncertain, as is the case with emergencies and disasters, is hard to justify when the budget might address other priorities with more immediate results. Therefore, it is a delicate balance and one that officials must integrate consistently over time to build a resilient system capable of handling the impacts of any size disaster.¹⁴⁶ This shows the importance of the fiscal component, with resources committed from all levels of government, as key to the success of any emergency management program.

Another policy consideration is the government's role in providing emergency management as a public service. Governments step in where private organizations do not fill the need or offer a reasonable option.¹⁴⁷ This is the case for emergency management. The support role of the federal government essentially serves as a safety net for emergency management, especially when large incidents occur. During a large-scale disaster, the public expects, as do many state and local officials, the federal government to support the incident with access to significant funding and resources. Generally speaking, the public's expectations for state-level emergency management may be low due to a lack of awareness or understanding of its role. However, the public does expect state officials to act on behalf of affected communities, especially when it comes to taking responsibility and requesting federal resources. When no other options are readily

¹⁴³ McEntire and Dawson, "The Intergovernmental Context," 67.

¹⁴⁴ McEntire and Dawson, 68.

¹⁴⁵ McEntire and Dawson, 68.

¹⁴⁶ McEntire and Dawson, 69.

¹⁴⁷ Bardach and Patashnik, *A Practical Guide for Policy Analysis*, 5.

available, the government has the responsibility to provide emergency management services to ensure the public good.

C. RECOMMENDATIONS

This thesis extends recommendations for the emergency management enterprise overall as well as the states identified as potentially vulnerable based on the evaluation of the data analysis and considerations of the policy analysis. Even though this thesis focuses primarily on emergency management at the state level, it is difficult to separate the levels of government in this collaborative process, and that connection highlights the importance of the local level in the overall mission. The concept of intergovernmental relations, or how each level of government interacts with the others and within its defined role, provides an established framework by which to analyze the problem space and determine whether the current roles and coordination are effective. Better defining the roles and responsibilities of each level of government may help clarify expectations and result in a more efficient and effective response. These arguments emphasize the importance of each level of government knowing its defined role while also coordinating regularly to understand how those roles can change and overlap during a disaster. Based on this constant theme threaded through the research, the first recommendation is to encourage more cross-jurisdictional partnerships that facilitate cooperation and innovation.

As this thesis has detailed, federal funding is a key component to supporting emergency management programs throughout the country, not only after the fact for disaster response and recovery but also for preparedness efforts. Often the response phase of emergency management receives most of the attention (cue the flashing lights and sirens). However, if more interest were given to promoting and highlighting preparedness efforts, it would increase the awareness of and focus on building partnerships and capabilities before an incident happens. And when an incident does occur, the preparedness initiatives will more than likely lead to improved response capabilities. Another recommendation of this research is to heighten the attention provided to preparedness vis-à-vis the response phase of emergency management.

This research has demonstrated the importance of FEMA's EMPG funding, due to its relative consistency over the years and broad application across all 50 states. The all-hazards scope of the EMPG allows state and local programs the flexibility to develop capabilities across a wide

variety of different threats and hazards. In addition, the consistent allocation and disbursement of the grant program provide state and local governments with a certain amount of predictability in funding to maintain ongoing operations. An extended period of performance for each annual grant award also gives recipients the opportunity to focus on long-term projects as opposed to short-term pieces in an effort to spend the money quickly. The reliability of EMPG funding allows states an opportunity to plan and budget more effectively.

Federal grants promoting preparedness initiatives, such as the EMPG, provide the foundational financial support for many emergency management programs. In addition, federal funding that supports preparedness allows state and local governments to manage large numbers of disasters and emergencies without the additional assistance of federal resources.¹⁴⁸ As demonstrated throughout the research, this is in large part made possible through the federal funding used to support increased preparedness levels. This preparedness funding assists in managing emergency incidents at the state and local level, which allows the federal government to focus on the most complex and devastating incidents that are beyond the combined capabilities of state and local governments. The absence of this federal preparedness funding would have a detrimental effect on the state and local ability to manage emergency incidents, putting more burden on the federal government. There is also the question whether federal funding has grown proportionately to match the ever-increasing demands placed on the emergency management profession. For these reasons, another recommendation is to support the emergency management mission by increasing federal grant funding like the EMPG to build a more prepared and resilient nation.

The cost-share component of EMPG funding is another reason it is such a valuable federal grant. The cost share, also referred to as grant match, is the amount of non-federal funding required, often stated in percentage terms, to receive an allocation from a federal grant award. A recipient must contribute a specific non-federal amount toward the same purpose to receive the federal funds. In the case of the EMPG, that cost-share requirement is 50 percent.¹⁴⁹ This means emergency management agencies across the country match EMPG funding dollar for dollar,

¹⁴⁸ National Emergency Management Association, *2018 Biennial Report*, 3.

¹⁴⁹ Federal Emergency Management Agency, *Notice of Funding Opportunity: Fiscal Year 2019*, 7.

essentially doubling the return on investment from the federal perspective.¹⁵⁰ However, the data analysis showed some states might not contribute enough non-federal funds in their average operating budgets to meet the EMPG match requirements.

The analysis separated the states into different groups based on several data metrics to identify potential vulnerabilities. This categorization revealed a group of states that might be vulnerable because they do not seem to invest proportionately in the areas of preparedness to readily manage the number of incidents in their states on an annual basis. One of the seemingly mismatched groups, designated as Group 2 (Table 3), includes states that have an average operating budget apportionment of 50 percent or more combined with 14 or fewer total declarations, totaling 13 states. These states invest a higher amount of non-federal funds in their emergency management programs but experience fewer major disaster and emergency declarations. This combination does not seem to match: if a state has few incidents, it might not need to have a large emergency management program. Funding might be allocated to other priorities while still maintaining an effective emergency management program. Alternatively, these states might have fewer federally declared major disaster and emergency declarations because of their greater state investment, which may help them handle more incidents at the local and state level. This research suggests, though, that these states should evaluate their emergency management funding more closely at the state level to see whether it truly maximizes the use of taxpayer dollars.

¹⁵⁰ National Emergency Management Association and U.S. Council of International Association of Emergency Managers, *Emergency Management Performance Grants*.

Table 3. Grouping of States Based on Analysis of Data in Table 16

High-High Group 1 (17)	High-Low Group 2 (13)	Low-High Group 3 (7)	Low-Low Group 4 (13)
Alabama	Alaska	Arkansas	Arizona
California	Connecticut	Kansas	Colorado
Florida	Delaware	New York	Georgia
Iowa	Illinois	Oklahoma	Hawaii
Louisiana	Indiana	South Dakota	Idaho
Massachusetts	Montana	Texas	Kentucky
Minnesota	New Mexico	Vermont	Maine
Mississippi	Ohio		Maryland
Missouri	Oregon		Michigan
Nebraska	Pennsylvania		Nevada
New Hampshire	Virginia		Rhode Island
New Jersey	Wisconsin		South Carolina
North Carolina	Wyoming		Utah
North Dakota			
Tennessee			
Washington			
West Virginia			

The other group of concern, designated as Group 3 (Table 3), includes states with an average operating budget apportionment of less than 50 percent combined with more than 14 total declarations, totaling seven states. This combination may be the most uncertain, as these states experience many incidents but spend less overall on their emergency management program. These seven states are Arkansas, Kansas, New York, Oklahoma, South Dakota, Texas, and Vermont. The emergency management agencies in these seven states may be vulnerable, given that their state funding levels for emergency management may not be enough to meet the federal cost-share requirements, not to mention they experienced a greater number of major disaster and emergency declarations.

As mentioned previously, this observation is inconclusive, as there are other possible explanations outside the data collected for this research. Many factors involve how a state is funded

and can meet the match requirement. Nonetheless, such a finding may still be significant considering the federal government's intention to increase its return on investment. For these reasons, though, this research recommends these states conduct a thorough review of their emergency management funding, with a strong consideration of increasing the investment at the state level to coincide with the higher rate of emergency and disaster incidents.

Further analysis is important because it may help clarify what balance of funding maximizes the effectiveness of emergency management programs at the state level. The initial expectation of the research was to formulate a uniform approach for funding emergency management at the state level. The analysis required an evaluative method as a precursor to identify the problem statement in an effort to arrive at a potential approach that might work for the majority of states. However, the original motive for this thesis was not the end result; instead, it morphed along the way as research revealed a more informed path.¹⁵¹

Undeniably, emergency management has played an essential role in recent years at every level of government, from the local, to the state, to the federal level. Whether it was managing a global pandemic or historic levels of natural disasters, this field has proven its worth and significance. The frequency and intensity of disasters seem to be growing, and the expectations placed on emergency management will only increase as the field becomes more diverse and experienced. As one can imagine, the results did not lead to a magic formula, but this research advanced the discussion and laid the foundation for others to continue analyzing the important question of how emergency management should be funded at the state level—because all communities need to know what to do during an emergency, and it is the role of emergency management agencies to help communities prepare.

¹⁵¹ Bardach and Patashnik, *A Practical Guide for Policy Analysis*, 1.

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APPENDIX. TABLES

The following is a summary of the Appendix tables:

- Tables 4. Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: 2010–2013
- Table 5. Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico (Continued): 2014–2019
- Table 6. EMPG Funding Allocation by Federal Fiscal Year
- Table 7. EMPG Distribution, Organized Alphabetically
- Table 8. EMPG Distribution, Percentage Retained by State Emergency Management (Descending Order)
- Table 9. NEMA State Operating Budget
- Table 10. NEMA State Operating Budget and EMPG FY19 Funding Allocation, Organized Alphabetically
- Table 11. NEMA State Operating Budget and EMPG FY19 Funding Allocation (Sorted)
- Table 12. NEMA State Operating Budget, EMPG FY19 Funding Allocation, and EMPG Retained by State EM, Organized Alphabetically
- Table 13. NEMA State Operating Budget, EMPG FY19 Funding Allocation, and EMPG Retained by State EM (Sorted)
- Table 14. FEMA’s Federal Disaster and Emergency Declarations, Organized Alphabetically
- Table 15. FEMA’s Total Federal Disaster and Emergency Declarations by State (Descending Order)
- Table 16. NEMA State Operating Budget, EMPG FY19 Funding Allocation Retained by State EM, and FEMA Declarations

Table 4. Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: 2010–2013¹⁵²

Geographic Area	April 1, 2010		Population Estimate (as of July 1)			
	Census	Est Base	2010	2011	2012	2013
United States	308,745,538	308,758,105	309,321,666	311,556,874	313,830,990	315,993,715
Northeast	55,317,240	55,318,443	55,380,134	55,604,223	55,775,216	55,901,806
Midwest	66,927,001	66,929,725	66,974,416	67,157,800	67,336,743	67,560,379
South	114,555,744	114,563,030	114,866,680	116,006,522	117,241,208	118,364,400
West	71,945,553	71,946,907	72,100,436	72,788,329	73,477,823	74,167,130
Alabama	4,779,736	4,780,125	4,785,437	4,799,069	4,815,588	4,830,081
Alaska	710,231	710,249	713,910	722,128	730,443	737,068
Arizona	6,392,017	6,392,288	6,407,172	6,472,643	6,554,978	6,632,764
Arkansas	2,915,918	2,916,031	2,921,964	2,940,667	2,952,164	2,959,400
California	37,253,956	37,254,519	37,319,502	37,638,369	37,948,800	38,260,787
Colorado	5,029,196	5,029,319	5,047,349	5,121,108	5,192,647	5,269,035
Connecticut	3,574,097	3,574,147	3,579,114	3,588,283	3,594,547	3,594,841
Delaware	897,934	897,937	899,593	907,381	915,179	923,576
District of Columbia	601,723	601,767	605,226	619,800	634,924	650,581
Florida	18,801,310	18,804,564	18,845,537	19,053,237	19,297,822	19,545,621
Georgia	9,687,653	9,688,729	9,711,881	9,802,431	9,901,430	9,972,479
Hawaii	1,360,301	1,360,307	1,363,963	1,379,329	1,394,804	1,408,243

¹⁵² Source: “Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2019 (NST-EST2019-01),” U.S. Census Bureau, 2019, <https://www.census.gov/data/datasets/time-series/demo/popest/2010s-state-total.html>. Note: The estimates are based on the 2010 Census and reflect changes to the April 1, 2010, population due to the Count Question Resolution program and geographic program revisions. For a list of the states included in each region, see “Terms and Definitions,” U.S. Census Bureau, accessed March 22, 2022, <http://www.census.gov/programs-surveys/popest/guidance-geographies/terms-and-definitions.html>. All geographic boundaries for the 2019 population estimates series except statistical area delineations are as of January 1, 2019. For information on the methodology for population estimates, see “Methodology,” U.S. Census Bureau, accessed March 22, 2022, <http://www.census.gov/programs-surveys/popest/technical-documentation/methodology.html>.

Geographic Area	April 1, 2010		Population Estimate (as of July 1)			
	Census	Est Base	2010	2011	2012	2013
Idaho	1,567,582	1,567,657	1,570,746	1,583,910	1,595,324	1,611,206
Illinois	12,830,632	12,831,572	12,840,503	12,867,454	12,882,510	12,895,129
Indiana	6,483,802	6,484,051	6,490,432	6,516,528	6,537,703	6,568,713
Iowa	3,046,355	3,046,871	3,050,745	3,066,336	3,076,190	3,092,997
Kansas	2,853,118	2,853,123	2,858,190	2,869,225	2,885,257	2,893,212
Kentucky	4,339,367	4,339,333	4,348,181	4,369,821	4,386,346	4,404,659
Louisiana	4,533,372	4,533,487	4,544,532	4,575,625	4,600,972	4,624,527
Maine	1,328,361	1,328,358	1,327,629	1,328,284	1,327,729	1,328,009
Maryland	5,773,552	5,773,794	5,788,645	5,839,419	5,886,992	5,923,188
Massachusetts	6,547,629	6,547,785	6,566,307	6,613,583	6,663,005	6,713,315
Michigan	9,883,640	9,884,116	9,877,510	9,882,412	9,897,145	9,913,065
Minnesota	5,303,925	5,303,927	5,310,828	5,346,143	5,376,643	5,413,479
Mississippi	2,967,297	2,968,130	2,970,548	2,978,731	2,983,816	2,988,711
Missouri	5,988,927	5,988,950	5,995,974	6,010,275	6,024,367	6,040,715
Montana	989,415	989,407	990,697	997,316	1,003,783	1,013,569
Nebraska	1,826,341	1,826,305	1,829,542	1,840,672	1,853,303	1,865,279
Nevada	2,700,551	2,700,677	2,702,405	2,712,730	2,743,996	2,775,970
New Hampshire	1,316,470	1,316,462	1,316,762	1,320,202	1,324,232	1,326,622
New Jersey	8,791,894	8,791,978	8,799,446	8,828,117	8,844,942	8,856,972
New Mexico	2,059,179	2,059,199	2,064,552	2,080,450	2,087,309	2,092,273
New York	19,378,102	19,378,144	19,399,878	19,499,241	19,572,932	19,624,447
North Carolina	9,535,483	9,535,751	9,574,323	9,657,592	9,749,476	9,843,336
North Dakota	672,591	672,576	674,715	685,225	701,176	722,036
Ohio	11,536,504	11,536,751	11,539,336	11,544,663	11,548,923	11,576,684
Oklahoma	3,751,351	3,751,582	3,759,944	3,788,379	3,818,814	3,853,214
Oregon	3,831,074	3,831,079	3,837,491	3,872,036	3,899,001	3,922,468
Pennsylvania	12,702,379	12,702,868	12,711,160	12,745,815	12,767,118	12,776,309
Rhode Island	1,052,567	1,052,964	1,053,959	1,053,649	1,054,621	1,055,081
South Carolina	4,625,364	4,625,366	4,635,649	4,671,994	4,717,354	4,764,080
South Dakota	814,180	814,198	816,166	823,579	833,566	842,316

Geographic Area	April 1, 2010		Population Estimate (as of July 1)			
	Census	Est Base	2010	2011	2012	2013
Tennessee	6,346,105	6,346,276	6,355,311	6,399,291	6,453,898	6,494,340
Texas	25,145,561	25,146,091	25,241,971	25,645,629	26,084,481	26,480,266
Utah	2,763,885	2,763,891	2,775,332	2,814,384	2,853,375	2,897,640
Vermont	625,741	625,737	625,879	627,049	626,090	626,210
Virginia	8,001,024	8,001,049	8,023,699	8,101,155	8,185,080	8,252,427
Washington	6,724,540	6,724,540	6,742,830	6,826,627	6,897,058	6,963,985
West Virginia	1,852,994	1,853,018	1,854,239	1,856,301	1,856,872	1,853,914
Wisconsin	5,686,986	5,687,285	5,690,475	5,705,288	5,719,960	5,736,754
Wyoming	563,626	563,775	564,487	567,299	576,305	582,122
Puerto Rico	3,725,789	3,726,157	3,721,525	3,678,732	3,634,488	3,593,077

Table 5. Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico
(Continued): 2014–2019¹⁵³

Geographic Area	Population Estimate (as of July 1)					
	2014	2015	2016	2017	2018	2019
United States	318,301,008	320,635,163	322,941,311	324,985,539	326,687,501	328,239,523
Northeast	56,006,011	56,034,684	56,042,330	56,059,240	56,046,620	55,982,803
Midwest	67,745,167	67,860,583	67,987,540	68,126,781	68,236,628	68,329,004
South	119,624,037	120,997,341	122,351,760	123,542,189	124,569,433	125,580,448
West	74,925,793	75,742,555	76,559,681	77,257,329	77,834,820	78,347,268
Alabama	4,841,799	4,852,347	4,863,525	4,874,486	4,887,681	4,903,185
Alaska	736,283	737,498	741,456	739,700	735,139	731,545
Arizona	6,730,413	6,829,676	6,941,072	7,044,008	7,158,024	7,278,717
Arkansas	2,967,392	2,978,048	2,989,918	3,001,345	3,009,733	3,017,804
California	38,596,972	38,918,045	39,167,117	39,358,497	39,461,588	39,512,223
Colorado	5,350,101	5,450,623	5,539,215	5,611,885	5,691,287	5,758,736
Connecticut	3,594,524	3,587,122	3,578,141	3,573,297	3,571,520	3,565,287
Delaware	932,487	941,252	948,921	956,823	965,479	973,764
District of Columbia	662,328	675,400	685,815	694,906	701,547	705,749
Florida	19,845,911	20,209,042	20,613,477	20,963,613	21,244,317	21,477,737
Georgia	10,067,278	10,178,447	10,301,890	10,410,330	10,511,131	10,617,423
Hawaii	1,414,538	1,422,052	1,427,559	1,424,393	1,420,593	1,415,872
Idaho	1,631,112	1,651,059	1,682,380	1,717,715	1,750,536	1,787,065
Illinois	12,884,493	12,858,913	12,820,527	12,778,828	12,723,071	12,671,821
Indiana	6,593,644	6,608,422	6,634,304	6,658,078	6,695,497	6,732,219
Iowa	3,109,350	3,120,960	3,131,371	3,141,550	3,148,618	3,155,070

¹⁵³ Source: U.S. Census Bureau, “Annual Estimates of the Resident Population for the United States.” Note: “The estimates are based on the 2010 Census and reflect changes to the April 1, 2010, population due to the Count Question Resolution program and geographic program revisions. For a list of the states included in each region, see U.S. Census Bureau, “Terms and Definitions.” All geographic boundaries for the 2019 population estimates series except statistical area delineations are as of January 1, 2019. For information on the methodology for population estimates, see U.S. Census Bureau, “Methodology.”

Geographic Area	Population Estimate (as of July 1)					
	2014	2015	2016	2017	2018	2019
Kansas	2,900,475	2,909,011	2,910,844	2,908,718	2,911,359	2,913,314
Kentucky	4,414,349	4,425,976	4,438,182	4,452,268	4,461,153	4,467,673
Louisiana	4,644,013	4,664,628	4,678,135	4,670,560	4,659,690	4,648,794
Maine	1,330,513	1,328,262	1,331,317	1,334,612	1,339,057	1,344,212
Maryland	5,957,283	5,985,562	6,003,323	6,023,868	6,035,802	6,045,680
Massachusetts	6,762,596	6,794,228	6,823,608	6,859,789	6,882,635	6,892,503
Michigan	9,929,848	9,931,715	9,950,571	9,973,114	9,984,072	9,986,857
Minnesota	5,451,079	5,482,032	5,522,744	5,566,230	5,606,249	5,639,632
Mississippi	2,990,468	2,988,471	2,987,938	2,988,510	2,981,020	2,976,149
Missouri	6,056,202	6,071,732	6,087,135	6,106,670	6,121,623	6,137,428
Montana	1,021,869	1,030,475	1,040,859	1,052,482	1,060,665	1,068,778
Nebraska	1,879,321	1,891,277	1,905,616	1,915,947	1,925,614	1,934,408
Nevada	2,817,628	2,866,939	2,917,563	2,969,905	3,027,341	3,080,156
New Hampshire	1,333,341	1,336,350	1,342,307	1,348,787	1,353,465	1,359,711
New Jersey	8,864,525	8,867,949	8,870,827	8,885,525	8,886,025	8,882,190
New Mexico	2,089,568	2,089,291	2,091,630	2,091,784	2,092,741	2,096,829
New York	19,651,049	19,654,666	19,633,428	19,589,572	19,530,351	19,453,561
North Carolina	9,932,887	10,031,646	10,154,788	10,268,233	10,381,615	10,488,084
North Dakota	737,401	754,066	754,434	754,942	758,080	762,062
Ohio	11,602,700	11,617,527	11,634,370	11,659,650	11,676,341	11,689,100
Oklahoma	3,878,187	3,909,500	3,926,331	3,931,316	3,940,235	3,956,971
Oregon	3,963,244	4,015,792	4,089,976	4,143,625	4,181,886	4,217,737
Pennsylvania	12,788,313	12,784,826	12,782,275	12,787,641	12,800,922	12,801,989
Rhode Island	1,055,936	1,056,065	1,056,770	1,055,673	1,058,287	1,059,361
South Carolina	4,823,617	4,891,938	4,957,968	5,021,268	5,084,156	5,148,714
South Dakota	849,129	853,988	862,996	872,868	878,698	884,659
Tennessee	6,541,223	6,591,170	6,646,010	6,708,799	6,771,631	6,829,174
Texas	26,964,333	27,470,056	27,914,410	28,295,273	28,628,666	28,995,881
Utah	2,936,879	2,981,835	3,041,868	3,101,042	3,153,550	3,205,958
Vermont	625,214	625,216	623,657	624,344	624,358	623,989

Geographic Area	Population Estimate (as of July 1)					
	2014	2015	2016	2017	2018	2019
Virginia	8,310,993	8,361,808	8,410,106	8,463,587	8,501,286	8,535,519
Washington	7,054,655	7,163,657	7,294,771	7,423,362	7,523,869	7,614,893
West Virginia	1,849,489	1,842,050	1,831,023	1,817,004	1,804,291	1,792,147
Wisconsin	5,751,525	5,760,940	5,772,628	5,790,186	5,807,406	5,822,434
Wyoming	582,531	585,613	584,215	578,931	577,601	578,759
Puerto Rico	3,534,874	3,473,232	3,406,672	3,325,286	3,193,354	3,193,694

Table 6. EMPG Funding Allocation by Federal Fiscal Year¹⁵⁴

State/Territory	EMPG FY14	EMPG FY15	EMPG FY16	EMPG FY17	EMPG FY18	EMPG FY19
Alabama	\$5,795,991	\$5,780,028	\$5,762,090	\$5,749,059	\$5,732,434	\$5,728,503
Alaska	\$3,107,257	\$3,104,321	\$3,101,752	\$3,101,574	\$3,096,586	\$3,093,229
American Samoa	\$910,896	\$910,469	\$910,085	\$909,813	\$907,832	\$907,271
Arizona	\$6,972,161	\$7,004,535	\$7,033,385	\$7,077,342	\$7,097,560	\$7,178,562
Arkansas	\$4,566,391	\$4,554,934	\$4,547,810	\$4,544,574	\$4,540,094	\$4,538,597
California	\$27,771,691	\$27,870,091	\$27,897,964	\$27,838,209	\$27,827,857	\$27,741,329
Colorado	\$6,081,125	\$6,109,552	\$6,147,913	\$6,184,104	\$6,199,311	\$6,241,339
Connecticut	\$4,984,080	\$4,965,015	\$4,943,374	\$4,922,421	\$4,912,308	\$4,893,426
Delaware	\$3,232,305	\$3,233,715	\$3,235,721	\$3,236,582	\$3,238,193	\$3,239,095
District of Columbia	\$3,049,080	\$3,053,679	\$3,059,009	\$3,062,566	\$3,067,376	\$3,071,016
Florida	\$15,451,958	\$15,567,673	\$15,712,687	\$15,865,902	\$16,001,622	\$16,148,783
Georgia	\$9,180,005	\$9,194,379	\$9,219,993	\$9,248,118	\$9,273,265	\$9,304,231
Guam	\$980,210	\$979,748	\$979,453	\$979,541	\$981,683	\$981,525
Hawaii	\$3,546,080	\$3,548,573	\$3,549,282	\$3,542,668	\$3,534,992	\$3,526,926
Idaho	\$3,682,584	\$3,688,390	\$3,693,468	\$3,706,206	\$3,719,475	\$3,738,816
Illinois	\$11,075,866	\$11,005,166	\$10,927,764	\$10,848,380	\$10,785,720	\$10,714,815
Indiana	\$6,935,606	\$6,916,945	\$6,898,846	\$6,885,903	\$6,874,800	\$6,873,938
Iowa	\$4,652,357	\$4,646,511	\$4,641,875	\$4,638,646	\$4,630,251	\$4,628,961
Kansas	\$4,523,477	\$4,514,370	\$4,504,835	\$4,492,568	\$4,481,986	\$4,473,630
Kentucky	\$5,508,377	\$5,496,416	\$5,481,960	\$5,475,198	\$5,464,347	\$5,462,165
Louisiana	\$5,659,375	\$5,650,101	\$5,640,547	\$5,632,382	\$5,611,054	\$5,583,804
Maine	\$3,496,385	\$3,490,362	\$3,483,250	\$3,480,308	\$3,476,581	\$3,474,806

¹⁵⁴ Source: Federal Emergency Management Agency, *Notice of Funding Opportunity: Fiscal Year 2019*.

State/Territory	EMPG FY14	EMPG FY15	EMPG FY16	EMPG FY17	EMPG FY18	EMPG FY19
Marshall Islands	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Maryland	\$6,514,387	\$6,513,279	\$6,502,897	\$6,489,811	\$6,482,994	\$6,461,761
Massachusetts	\$7,015,589	\$7,013,594	\$7,011,664	\$7,000,712	\$6,997,830	\$7,007,447
Michigan	\$9,116,670	\$9,072,413	\$9,031,286	\$9,002,685	\$8,975,530	\$8,971,802
Micronesia	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Minnesota	\$6,180,847	\$6,175,463	\$6,169,232	\$6,170,876	\$6,179,838	\$6,187,759
Mississippi	\$4,587,275	\$4,572,962	\$4,556,932	\$4,544,881	\$4,527,231	\$4,521,266
Missouri	\$6,590,063	\$6,570,000	\$6,552,785	\$6,538,987	\$6,522,105	\$6,514,927
Montana	\$3,290,963	\$3,290,945	\$3,291,900	\$3,294,688	\$3,294,643	\$3,299,499
Nebraska	\$3,850,773	\$3,849,115	\$3,849,232	\$3,850,082	\$3,848,963	\$3,849,969
Nevada	\$4,455,369	\$4,472,131	\$4,491,408	\$4,513,618	\$4,536,117	\$4,551,655
New Hampshire	\$3,493,208	\$3,488,231	\$3,484,077	\$3,482,438	\$3,480,972	\$3,486,269
New Jersey	\$8,463,094	\$8,440,219	\$8,408,538	\$8,370,698	\$8,365,698	\$8,281,372
New Mexico	\$3,992,978	\$3,981,883	\$3,971,203	\$3,961,791	\$3,956,052	\$3,955,470
New York	\$15,516,422	\$15,471,989	\$15,405,703	\$15,308,867	\$15,278,109	\$15,033,121
North Carolina	\$9,085,469	\$9,094,590	\$9,108,907	\$9,143,036	\$9,173,848	\$9,217,971
North Dakota	\$3,099,556	\$3,106,110	\$3,113,693	\$3,111,889	\$3,106,529	\$3,107,603
Northern Mariana	\$908,568	\$908,495	\$908,795	\$909,346	\$908,315	\$908,013
Ohio	\$10,215,617	\$10,168,217	\$10,122,943	\$10,085,775	\$10,056,845	\$10,047,089
Oklahoma	\$5,151,028	\$5,148,078	\$5,150,267	\$5,145,395	\$5,130,751	\$5,128,617
Oregon	\$5,203,179	\$5,208,056	\$5,226,218	\$5,254,537	\$5,265,835	\$5,285,849
Pennsylvania	\$11,004,797	\$10,944,419	\$10,890,646	\$10,837,260	\$10,787,960	\$10,756,709
Puerto Rico	\$4,996,548	\$4,933,604	\$4,868,027	\$4,816,336	\$4,752,302	\$4,653,729
Rhode Island	\$3,314,806	\$3,311,501	\$3,306,975	\$3,303,621	\$3,300,473	\$3,296,331
South Carolina	\$5,757,363	\$5,769,036	\$5,786,086	\$5,811,896	\$5,827,812	\$5,853,113
South Dakota	\$3,179,251	\$3,180,080	\$3,179,251	\$3,180,945	\$3,179,373	\$3,185,166
Tennessee	\$6,886,455	\$6,886,039	\$6,886,333	\$6,897,557	\$6,906,141	\$6,923,547
Texas	\$19,975,395	\$20,163,325	\$20,359,810	\$20,523,217	\$20,667,921	\$20,848,936

State/Territory	EMPG FY14	EMPG FY15	EMPG FY16	EMPG FY17	EMPG FY18	EMPG FY19
US Virgin Islands	\$943,709	\$942,773	\$941,870	\$941,133	\$943,379	\$942,924
Utah	\$4,528,014	\$4,539,666	\$4,559,247	\$4,585,024	\$4,602,281	\$4,632,111
Vermont	\$3,036,078	\$3,032,644	\$3,029,190	\$3,026,223	\$3,022,554	\$3,022,662
Virginia	\$8,043,945	\$8,042,123	\$8,037,289	\$8,028,530	\$8,024,261	\$8,033,215
Washington	\$7,198,343	\$7,219,265	\$7,254,374	\$7,306,624	\$7,345,832	\$7,409,645
West Virginia	\$3,841,450	\$3,828,831	\$3,815,619	\$3,801,253	\$3,782,528	\$3,771,594
Wisconsin	\$6,392,302	\$6,370,898	\$6,351,133	\$6,337,094	\$6,319,363	\$6,316,264
Wyoming	\$3,007,232	\$3,005,053	\$3,003,407	\$3,001,111	\$2,994,288	\$2,991,828
TOTAL	\$350,100,000	\$350,100,000	\$350,100,000	\$350,100,000	\$350,100,000	\$350,100,000

Table 7. EMPG Distribution, Organized Alphabetically¹⁵⁵

State/Territory (alpha)	Local Gov'ts (County or City)	Tribal Governments	Other State Agencies	Other Entities	Retained by the State EM	TOTAL
Alabama	63%	0%	0%	0%	37%	100%
Alaska	31%	0%	0%	0%	69%	100%
American Samoa	0%	0%	0%	0%	100%	100%
Arizona	40%	4%	7%	0%	49%	100%
Arkansas	51%	0%	0%	0%	49%	100%
California	55%	1%	0%	0%	44%	100%
Colorado	50%	1%	0%	0%	49%	100%
Connecticut	34%	1%	0%	1%	64%	100%
Delaware	33%	0%	3%	0%	64%	100%
District of Columbia	0%	0%	0%	0%	100%	100%
Florida	40%	0%	0%	0%	60%	100%
Georgia	27%	0%	0%	2%	71%	100%
Guam	0%	0%	0%	0%	100%	100%
Hawaii	24%	0%	0%	0%	76%	100%
Idaho	34%	0%	0%	0%	66%	100%
Illinois	36%	0%	0%	0%	64%	100%
Indiana	60%	0%	1%	0%	39%	100%
Iowa	47%	0%	0%	0%	53%	100%
Kansas	37%	0%	0%	0%	63%	100%
Kentucky	50%	0%	0%	0%	50%	100%
Louisiana	35%	0%	0%	0%	65%	100%
Maine	59%	0%	0%	0%	41%	100%

¹⁵⁵ Source: National Emergency Management Association, *2018 Biennial Report*, 27. The associated survey question asked how EMPG funds were allocated in each state.

State/Territory (alpha)	Local Gov'ts (County or City)	Tribal Governments	Other State Agencies	Other Entities	Retained by the State EM	TOTAL
Marshall Islands	0%	0%	0%	0%	100%	100%
Maryland	50%	0%	0%	0%	50%	100%
Massachusetts	22%	1%	0%	0%	77%	100%
Michigan	28%	0%	0%	0%	72%	100%
Micronesia	0%	0%	0%	0%	100%	100%
Minnesota	54%	2%	0%	0%	44%	100%
Mississippi	60%	0%	0%	0%	40%	100%
Missouri	58%	0%	1%	0%	41%	100%
Montana	55%	5%	1%	0%	39%	100%
Nebraska	62%	0%	38%	0%	0%	100%
Nevada	45%	3%	0%	1%	51%	100%
New Hampshire	42%	0%	10%	0%	48%	100%
New Jersey	22%	0%	1%	1%	76%	100%
New Mexico	35%	1%	9%	0%	55%	100%
New York	49%	0%	0%	0%	51%	100%
North Carolina	50%	1%	0%	0%	49%	100%
North Dakota	46%	1%	0%	0%	53%	100%
Northern Mariana	0%	0%	0%	0%	100%	100%
Ohio	62%	0%	0%	0%	38%	100%
Oklahoma	50%	18%	7%	0%	25%	100%
Oregon	76%	4%	0%	0%	20%	100%
Pennsylvania	51%	0%	0%	0%	49%	100%
Puerto Rico	0%	0%	0%	0%	100%	100%
Rhode Island	15%	0%	0%	0%	85%	100%
South Carolina	50%	0%	0%	0%	50%	100%
South Dakota	45%	0%	0%	0%	55%	100%
Tennessee	46%	0%	0%	0%	54%	100%

State/Territory (alpha)	Local Gov'ts (County or City)	Tribal Governments	Other State Agencies	Other Entities	Retained by the State EM	TOTAL
Texas	29%	0%	0%	0%	71%	100%
US Virgin Islands	0%	0%	0%	0%	100%	100%
Utah	40%	0%	1%	1%	58%	100%
Vermont	0%	0%	3%	18%	79%	100%
Virginia	80%	0%	0%	0%	20%	100%
Washington	58%	1%	1%	0%	40%	100%
West Virginia	64%	0%	0%	0%	36%	100%
Wisconsin	65%	2%	0%	0%	33%	100%
Wyoming	34%	1%	5%	4%	56%	100%
AVERAGE	38.78%	0.81%	1.52%	0.48%	58.41%	100%

Table 8. EMPG Distribution, Percentage Retained by State Emergency Management (Descending Order)¹⁵⁶

State/Territory	Local Gov'ts (County or City)	Tribal Governments	Other State Agencies	Other Entities	Retained by the State EM	TOTAL
American Samoa	0%	0%	0%	0%	100%	100%
District of Columbia	0%	0%	0%	0%	100%	100%
Guam	0%	0%	0%	0%	100%	100%
Marshall Islands	0%	0%	0%	0%	100%	100%
Micronesia	0%	0%	0%	0%	100%	100%
Northern Mariana	0%	0%	0%	0%	100%	100%
Puerto Rico	0%	0%	0%	0%	100%	100%
US Virgin Islands	0%	0%	0%	0%	100%	100%
Rhode Island	15%	0%	0%	0%	85%	100%
Vermont	0%	0%	3%	18%	79%	100%
Massachusetts	22%	1%	0%	0%	77%	100%
Hawaii	24%	0%	0%	0%	76%	100%
New Jersey	22%	0%	1%	1%	76%	100%
Michigan	28%	0%	0%	0%	72%	100%
Georgia	27%	0%	0%	2%	71%	100%
Texas	29%	0%	0%	0%	71%	100%
Alaska	31%	0%	0%	0%	69%	100%
Idaho	34%	0%	0%	0%	66%	100%
Louisiana	35%	0%	0%	0%	65%	100%
Connecticut	34%	1%	0%	1%	64%	100%
Delaware	33%	0%	3%	0%	64%	100%
Illinois	36%	0%	0%	0%	64%	100%

¹⁵⁶ Source: National Emergency Management Association, *2018 Biennial Report*, 27. The associated survey question asked how EMPG funds were allocated in each state.

State/Territory	Local Gov'ts (County or City)	Tribal Governments	Other State Agencies	Other Entities	Retained by the State EM	TOTAL
Kansas	37%	0%	0%	0%	63%	100%
Florida	40%	0%	0%	0%	60%	100%
Utah	40%	0%	1%	1%	58%	100%
Wyoming	34%	1%	5%	4%	56%	100%
New Mexico	35%	1%	9%	0%	55%	100%
South Dakota	45%	0%	0%	0%	55%	100%
Tennessee	46%	0%	0%	0%	54%	100%
Iowa	47%	0%	0%	0%	53%	100%
North Dakota	46%	1%	0%	0%	53%	100%
Nevada	45%	3%	0%	1%	51%	100%
New York	49%	0%	0%	0%	51%	100%
Kentucky	50%	0%	0%	0%	50%	100%
Maryland	50%	0%	0%	0%	50%	100%
South Carolina	50%	0%	0%	0%	50%	100%
Arizona	40%	4%	7%	0%	49%	100%
Arkansas	51%	0%	0%	0%	49%	100%
Colorado	50%	1%	0%	0%	49%	100%
North Carolina	50%	1%	0%	0%	49%	100%
Pennsylvania	51%	0%	0%	0%	49%	100%
New Hampshire	42%	0%	10%	0%	48%	100%
California	55%	1%	0%	0%	44%	100%
Minnesota	54%	2%	0%	0%	44%	100%
Maine	59%	0%	0%	0%	41%	100%
Missouri	58%	0%	1%	0%	41%	100%
Mississippi	60%	0%	0%	0%	40%	100%
Washington	58%	1%	1%	0%	40%	100%
Indiana	60%	0%	1%	0%	39%	100%

State/Territory	Local Gov'ts (County or City)	Tribal Governments	Other State Agencies	Other Entities	Retained by the State EM	TOTAL
Montana	55%	5%	1%	0%	39%	100%
Ohio	62%	0%	0%	0%	38%	100%
Alabama	63%	0%	0%	0%	37%	100%
West Virginia	64%	0%	0%	0%	36%	100%
Wisconsin	65%	2%	0%	0%	33%	100%
Oklahoma	50%	18%	7%	0%	25%	100%
Oregon	76%	4%	0%	0%	20%	100%
Virginia	80%	0%	0%	0%	20%	100%
Nebraska	62%	0%	38%	0%	0%	100%
AVERAGE	38.78%	0.81%	1.52%	0.48%	58.41%	100%

Table 9. NEMA State Operating Budget¹⁵⁷

State/Territory	Operating Budget for FY 2013 (excluding federal)	Operating Budget for FY 2014 (excluding federal)	Operating Budget for FY 2016 (excluding federal)	Operating Budget for FY 2017 (excluding federal)	Operating Budget (excluding federal) Average
Alabama	\$3,925,145	\$4,767,360	\$3,381,343	\$3,387,186	\$3,865,259
Alaska	\$2,660,300	\$2,639,900	\$2,457,700	\$2,443,500	\$2,550,350
American Samoa*					
Arizona	\$1,286,177	\$1,502,308	\$3,899,518	\$3,658,623	\$2,586,657
Arkansas	\$2,056,689	\$2,417,124	\$2,109,509	\$2,123,811	\$2,176,783
California	\$40,995,000	\$56,000,000	\$140,897,321	\$146,279,000	\$96,042,830
Colorado	\$622,565	\$1,040,000	\$953,147	\$1,200,000	\$953,928
Connecticut	\$4,500,000	\$4,771,203	\$4,889,917	\$4,211,662	\$4,593,196
Delaware		\$2,041,995	\$1,971,000	\$2,115,972	\$2,042,989
District of Columbia	\$2,007,000	\$2,027,000	\$4,551,525	\$4,827,226	\$3,353,188
Florida	\$50,797,629	\$45,848,033	\$58,034,342	\$77,577,601	\$58,064,401
Georgia	\$2,826,254	\$2,901,736	\$3,207,396	\$3,680,327	\$3,153,928
Guam*					
Hawaii	\$2,300,000	\$2,400,000	\$2,400,000	\$2,500,000	\$2,400,000
Idaho	\$1,499,800	\$1,693,400	\$1,533,450	\$1,928,000	\$1,663,663
Illinois	\$39,172,400	\$36,478,300	\$32,493,200	\$33,349,750	\$35,373,413
Indiana	\$13,400,000	\$10,195,269	\$20,758,455	\$28,367,960	\$18,180,421
Iowa	\$2,900,877	\$3,349,105	\$3,694,623	\$3,714,397	\$3,414,751
Kansas	\$1,012,976	\$1,656,357	\$1,576,261	\$1,666,677	\$1,478,068

¹⁵⁷ Source: National Emergency Management Association, *2014 Biennial Report* (Lexington, KY: National Emergency Management Association, 2014); National Emergency Management Association, *2016 Biennial Report* (Lexington, KY: National Emergency Management Association, 2016); National Emergency Management Association, *2018 Biennial Report*. The associated survey prompt was as follows: “Select those funding streams that comprise the annual operating budget for your state emergency management agency. For each selected item, list the amount that your agency receives from that funding stream. If you do not know the amount, please estimate. If the funding stream exists, but is unfunded, indicate that as well. Do not include any federal grants such as EMPG, SHSGP [State Homeland Security Grant Program], or disaster appropriations.”

State/Territory	Operating Budget for FY 2013 (excluding federal)	Operating Budget for FY 2014 (excluding federal)	Operating Budget for FY 2016 (excluding federal)	Operating Budget for FY 2017 (excluding federal)	Operating Budget (excluding federal) Average
Kentucky	\$2,234,916	\$2,233,371	\$1,850,000	\$1,700,000	\$2,004,572
Louisiana	\$5,438,710	\$3,293,241	\$6,894,297	\$2,485,280	\$4,527,882
Maine	\$1,043,623	\$1,057,469	\$1,105,298	\$1,524,956	\$1,182,837
Marshall Islands*					
Maryland	\$1,973,422	\$2,270,000	\$2,218,103	\$2,037,921	\$2,124,862
Massachusetts	\$5,073,000	\$4,714,950	\$12,952,030	\$3,276,221	\$6,504,050
Michigan	\$5,855,709	\$5,767,300	\$4,959,500	\$6,850,700	\$5,858,302
Micronesia*					
Minnesota	\$6,826,800	\$7,328,354	\$11,073,800	\$8,873,895	\$8,525,712
Mississippi	\$5,257,278	\$5,259,088	\$5,733,175	\$3,260,947	\$4,877,622
Missouri	\$3,045,538	\$3,000,315	\$2,498,000	\$2,223,855	\$2,691,927
Montana	\$1,044,000	\$1,440,000	\$1,264,472	\$1,298,820	\$1,261,823
Nebraska	\$1,714,577	\$942,430	\$1,899,577	\$1,790,944	\$1,586,882
Nevada	\$497,654	\$341,800	\$373,611	\$1,747,081	\$740,037
New Hampshire	\$3,800,921	\$4,106,324	\$4,782,914	\$4,667,000	\$4,339,290
New Jersey	\$18,285,985	\$7,000,000	\$22,010,000	\$1,865,000	\$12,290,246
New Mexico	\$2,900,000	\$2,400,000	\$2,584,700	\$2,536,400	\$2,605,275
New York	\$6,362,000	\$7,209,000	\$6,409,000	\$9,900,000	\$7,470,000
North Carolina	\$9,313,393	\$10,551,384	\$12,106,590	\$12,429,644	\$11,100,253
North Dakota	\$8,370,000	\$5,850,000	\$9,343,329	\$7,414,899	\$7,744,557
Northern Mariana*					
Ohio	\$6,177,803	\$6,628,383	\$6,027,438	\$6,324,000	\$6,289,406
Oklahoma	\$700,000	\$700,000	\$570,049	\$479,112	\$612,290
Oregon	\$2,000,000	\$2,454,165	\$2,051,096	\$2,051,000	\$2,139,065
Pennsylvania	\$10,825,000	\$22,348,000	\$15,290,000	\$18,761,000	\$16,806,000
Puerto Rico*					

State/Territory	Operating Budget for FY 2013 (excluding federal)	Operating Budget for FY 2014 (excluding federal)	Operating Budget for FY 2016 (excluding federal)	Operating Budget for FY 2017 (excluding federal)	Operating Budget (excluding federal) Average
Rhode Island	\$2,298,218	\$3,178,197	\$1,950,000	\$700,000	\$2,031,604
South Carolina	\$2,601,535	\$2,813,648	\$2,928,162	\$3,023,807	\$2,841,788
South Dakota	\$648,506	\$721,235	\$777,301	\$761,111	\$727,038
Tennessee	\$3,132,300	\$3,390,400	\$2,900,000	\$5,700,000	\$3,780,675
Texas	\$3,660,668	\$4,034,491	\$5,243,369	\$5,304,164	\$4,560,673
US Virgin Islands*					
Utah	\$956,500	\$1,393,900	\$1,470,000	\$1,440,000	\$1,315,100
Vermont	\$2,925,000	\$3,071,000	\$2,456,028	\$816,797	\$2,317,206
Virginia	\$9,741,628	\$11,621,652	\$9,830,080	\$10,593,295	\$10,446,664
Washington	\$3,800,000	\$1,713,545	\$3,306,125	\$3,737,273	\$3,139,236
West Virginia	\$3,922,841	\$735,215	\$3,218,977	\$3,642,326	\$2,879,840
Wisconsin	\$8,276,315	\$2,952,898	\$3,325,187	\$3,415,809	\$4,492,552
Wyoming	\$2,696,668	\$1,500,000	\$1,000,000	\$1,857,000	\$1,763,417
TOTAL	\$325,363,320	\$325,750,845	\$461,210,915	\$467,521,949	\$395,472,505

*Territories receive only federal funding for their operating budgets.

Table 10. NEMA State Operating Budget and EMPG FY19 Funding Allocation, Organized Alphabetically¹⁵⁸

State/Territory (alpha)	Operating Budget (excluding federal)		Federal		TOTAL
	Average	%	EMPG FY19	%	
Alabama	\$3,865,259	40%	\$5,728,503	60%	\$9,593,762
Alaska	\$2,550,350	45%	\$3,093,229	55%	\$5,643,579
American Samoa*		0%	\$907,271	100%	\$907,271
Arizona	\$2,586,657	26%	\$7,178,562	74%	\$9,765,219
Arkansas	\$2,176,783	32%	\$4,538,597	68%	\$6,715,380
California	\$96,042,830	78%	\$27,741,329	22%	\$123,784,159
Colorado	\$953,928	13%	\$6,241,339	87%	\$7,195,267
Connecticut	\$4,593,196	48%	\$4,893,426	52%	\$9,486,622
Delaware	\$2,042,989	39%	\$3,239,095	61%	\$5,282,084
District of Columbia	\$3,353,188	52%	\$3,071,016	48%	\$6,424,204
Florida	\$58,064,401	78%	\$16,148,783	22%	\$74,213,184
Georgia	\$3,153,928	25%	\$9,304,231	75%	\$12,458,159
Guam*		0%	\$981,525	100%	\$981,525
Hawaii	\$2,400,000	40%	\$3,526,926	60%	\$5,926,926
Idaho	\$1,663,663	31%	\$3,738,816	69%	\$5,402,479
Illinois	\$35,373,413	77%	\$10,714,815	23%	\$46,088,228
Indiana	\$18,180,421	73%	\$6,873,938	27%	\$25,054,359
Iowa	\$3,414,751	42%	\$4,628,961	58%	\$8,043,712
Kansas	\$1,478,068	25%	\$4,473,630	75%	\$5,951,698
Kentucky	\$2,004,572	27%	\$5,462,165	73%	\$7,466,737
Louisiana	\$4,527,882	45%	\$5,583,804	55%	\$10,111,686

¹⁵⁸ Source: Federal Emergency Management Agency, *Notice of Funding Opportunity: Fiscal Year 2019*; National Emergency Management Association, *2014 Biennial Report*; National Emergency Management Association, *2016 Biennial Report*; National Emergency Management Association, *2018 Biennial Report*. This table comprises data found in Table 6 and Table 9 of this thesis.

State/Territory (alpha)	Operating Budget (excluding federal)		Federal		TOTAL
	Average	%	EMPG FY19	%	
Maine	\$1,182,837	25%	\$3,474,806	75%	\$4,657,643
Marshall Islands*		0%	\$50,000	100%	\$50,000
Maryland	\$2,124,862	25%	\$6,461,761	75%	\$8,586,623
Massachusetts	\$6,504,050	48%	\$7,007,447	52%	\$13,511,497
Michigan	\$5,858,302	40%	\$8,971,802	60%	\$14,830,104
Micronesia*		0%	\$50,000	100%	\$50,000
Minnesota	\$8,525,712	58%	\$6,187,759	42%	\$14,713,471
Mississippi	\$4,877,622	52%	\$4,521,266	48%	\$9,398,888
Missouri	\$2,691,927	29%	\$6,514,927	71%	\$9,206,854
Montana	\$1,261,823	28%	\$3,299,499	72%	\$4,561,322
Nebraska	\$1,586,882	29%	\$3,849,969	71%	\$5,436,851
Nevada	\$740,037	14%	\$4,551,655	86%	\$5,291,692
New Hampshire	\$4,339,290	55%	\$3,486,269	45%	\$7,825,559
New Jersey	\$12,290,246	60%	\$8,281,372	40%	\$20,571,618
New Mexico	\$2,605,275	40%	\$3,955,470	60%	\$6,560,745
New York	\$7,470,000	33%	\$15,033,121	67%	\$22,503,121
North Carolina	\$11,100,253	55%	\$9,217,971	45%	\$20,318,224
North Dakota	\$7,744,557	71%	\$3,107,603	29%	\$10,852,160
Northern Mariana*		0%	\$908,013	100%	\$908,013
Ohio	\$6,289,406	38%	\$10,047,089	62%	\$16,336,495
Oklahoma	\$612,290	11%	\$5,128,617	89%	\$5,740,907
Oregon	\$2,139,065	29%	\$5,285,849	71%	\$7,424,914
Pennsylvania	\$16,806,000	61%	\$10,756,709	39%	\$27,562,709
Puerto Rico*		0%	\$4,653,729	100%	\$4,653,729
Rhode Island	\$2,031,604	38%	\$3,296,331	62%	\$5,327,935
South Carolina	\$2,841,788	33%	\$5,853,113	67%	\$8,694,901
South Dakota	\$727,038	19%	\$3,185,166	81%	\$3,912,204

State/Territory (alpha)	Operating Budget (excluding federal)		Federal		TOTAL
	Average	%	EMPG FY19	%	
Tennessee	\$3,780,675	35%	\$6,923,547	65%	\$10,704,222
Texas	\$4,560,673	18%	\$20,848,936	82%	\$25,409,609
US Virgin Islands*		0%	\$942,924	100%	\$942,924
Utah	\$1,315,100	22%	\$4,632,111	78%	\$5,947,211
Vermont	\$2,317,206	43%	\$3,022,662	57%	\$5,339,868
Virginia	\$10,446,664	57%	\$8,033,215	43%	\$18,479,879
Washington	\$3,139,236	30%	\$7,409,645	70%	\$10,548,881
West Virginia	\$2,879,840	43%	\$3,771,594	57%	\$6,651,434
Wisconsin	\$4,492,552	42%	\$6,316,264	58%	\$10,808,816
Wyoming	\$1,763,417	37%	\$2,991,828	63%	\$4,755,245
TOTAL	\$395,472,505	53%	\$350,100,000	47%	\$745,572,505

*Territories receive only federal funding for their operating budgets.

Table 11. NEMA State Operating Budget and EMPG FY19 Funding Allocation (Sorted)¹⁵⁹

State/Territory	Operating Budget (excluding federal) Average	%	Federal EMPG FY19	sorted %	TOTAL
Florida	\$58,064,401	78%	\$16,148,783	22%	\$74,213,184
California	\$96,042,830	78%	\$27,741,329	22%	\$123,784,159
Illinois	\$35,373,413	77%	\$10,714,815	23%	\$46,088,228
Indiana	\$18,180,421	73%	\$6,873,938	27%	\$25,054,359
North Dakota	\$7,744,557	71%	\$3,107,603	29%	\$10,852,160
Pennsylvania	\$16,806,000	61%	\$10,756,709	39%	\$27,562,709
New Jersey	\$12,290,246	60%	\$8,281,372	40%	\$20,571,618
Minnesota	\$8,525,712	58%	\$6,187,759	42%	\$14,713,471
Virginia	\$10,446,664	57%	\$8,033,215	43%	\$18,479,879
New Hampshire	\$4,339,290	55%	\$3,486,269	45%	\$7,825,559
North Carolina	\$11,100,253	55%	\$9,217,971	45%	\$20,318,224
District of Columbia	\$3,353,188	52%	\$3,071,016	48%	\$6,424,204
Mississippi	\$4,877,622	52%	\$4,521,266	48%	\$9,398,888
Connecticut	\$4,593,196	48%	\$4,893,426	52%	\$9,486,622
Massachusetts	\$6,504,050	48%	\$7,007,447	52%	\$13,511,497
Alaska	\$2,550,350	45%	\$3,093,229	55%	\$5,643,579
Louisiana	\$4,527,882	45%	\$5,583,804	55%	\$10,111,686
Vermont	\$2,317,206	43%	\$3,022,662	57%	\$5,339,868
West Virginia	\$2,879,840	43%	\$3,771,594	57%	\$6,651,434
Iowa	\$3,414,751	42%	\$4,628,961	58%	\$8,043,712
Wisconsin	\$4,492,552	42%	\$6,316,264	58%	\$10,808,816

¹⁵⁹ Source: Federal Emergency Management Agency, *Notice of Funding Opportunity: Fiscal Year 2019*; National Emergency Management Association, *2014 Biennial Report*; National Emergency Management Association, *2016 Biennial Report*; National Emergency Management Association, *2018 Biennial Report*. This table comprises data found in Table 6 and Table 9 of this thesis.

State/Territory	Operating Budget (excluding federal) Average	%	Federal EMPG FY19	sorted %	TOTAL
Hawaii	\$2,400,000	40%	\$3,526,926	60%	\$5,926,926
Alabama	\$3,865,259	40%	\$5,728,503	60%	\$9,593,762
New Mexico	\$2,605,275	40%	\$3,955,470	60%	\$6,560,745
Michigan	\$5,858,302	40%	\$8,971,802	60%	\$14,830,104
Delaware	\$2,042,989	39%	\$3,239,095	61%	\$5,282,084
Ohio	\$6,289,406	38%	\$10,047,089	62%	\$16,336,495
Rhode Island	\$2,031,604	38%	\$3,296,331	62%	\$5,327,935
Wyoming	\$1,763,417	37%	\$2,991,828	63%	\$4,755,245
Tennessee	\$3,780,675	35%	\$6,923,547	65%	\$10,704,222
New York	\$7,470,000	33%	\$15,033,121	67%	\$22,503,121
South Carolina	\$2,841,788	33%	\$5,853,113	67%	\$8,694,901
Arkansas	\$2,176,783	32%	\$4,538,597	68%	\$6,715,380
Idaho	\$1,663,663	31%	\$3,738,816	69%	\$5,402,479
Washington	\$3,139,236	30%	\$7,409,645	70%	\$10,548,881
Missouri	\$2,691,927	29%	\$6,514,927	71%	\$9,206,854
Nebraska	\$1,586,882	29%	\$3,849,969	71%	\$5,436,851
Oregon	\$2,139,065	29%	\$5,285,849	71%	\$7,424,914
Montana	\$1,261,823	28%	\$3,299,499	72%	\$4,561,322
Kentucky	\$2,004,572	27%	\$5,462,165	73%	\$7,466,737
Arizona	\$2,586,657	26%	\$7,178,562	74%	\$9,765,219
Maine	\$1,182,837	25%	\$3,474,806	75%	\$4,657,643
Georgia	\$3,153,928	25%	\$9,304,231	75%	\$12,458,159
Kansas	\$1,478,068	25%	\$4,473,630	75%	\$5,951,698
Maryland	\$2,124,862	25%	\$6,461,761	75%	\$8,586,623
Utah	\$1,315,100	22%	\$4,632,111	78%	\$5,947,211
South Dakota	\$727,038	19%	\$3,185,166	81%	\$3,912,204
Texas	\$4,560,673	18%	\$20,848,936	82%	\$25,409,609

State/Territory	Operating Budget (excluding federal) Average	%	Federal EMPG FY19	sorted %	TOTAL
Nevada	\$740,037	14%	\$4,551,655	86%	\$5,291,692
Colorado	\$953,928	13%	\$6,241,339	87%	\$7,195,267
Oklahoma	\$612,290	11%	\$5,128,617	89%	\$5,740,907
American Samoa*		0%	\$907,271	100%	\$907,271
Guam*		0%	\$981,525	100%	\$981,525
Marshall Islands*		0%	\$50,000	100%	\$50,000
Micronesia*		0%	\$50,000	100%	\$50,000
Northern Mariana*		0%	\$908,013	100%	\$908,013
Puerto Rico*		0%	\$4,653,729	100%	\$4,653,729
US Virgin Islands*		0%	\$942,924	100%	\$942,924
TOTAL	\$395,472,505	53%	\$350,100,000	47%	\$745,572,505

*Territories receive only federal funding for their operating budgets.

Table 12. NEMA State Operating Budget, EMPG FY19 Funding Allocation, and EMPG Retained by State EM, Organized Alphabetically¹⁶⁰

State/Territory (alpha)	Operating Budget (excluding federal) Average	%	Federal EMPG FY19	% of EMPG Retained by the State EM	EMPG Amount Retained by the State EM	%	TOTAL
Alabama	\$3,865,259	65%	\$5,728,503	37%	\$2,119,546.11	35%	\$5,984,805
Alaska	\$2,550,350	54%	\$3,093,229	69%	\$2,134,328.01	46%	\$4,684,678
American Samoa*		0%	\$907,271	100%	\$907,271	100%	\$907,271
Arizona	\$2,586,657	42%	\$7,178,562	49%	\$3,517,495	58%	\$6,104,152
Arkansas	\$2,176,783	49%	\$4,538,597	49%	\$2,223,913	51%	\$4,400,696
California	\$96,042,830	89%	\$27,741,329	44%	\$12,206,185	11%	\$108,249,015
Colorado	\$953,928	24%	\$6,241,339	49%	\$3,058,256	76%	\$4,012,184
Connecticut	\$4,593,196	59%	\$4,893,426	64%	\$3,131,793	41%	\$7,724,988
Delaware	\$2,042,989	50%	\$3,239,095	64%	\$2,073,021	50%	\$4,116,010
District of Columbia	\$3,353,188	52%	\$3,071,016	100%	\$3,071,016	48%	\$6,424,204
Florida	\$58,064,401	86%	\$16,148,783	60%	\$9,689,270	14%	\$67,753,671
Georgia	\$3,153,928	32%	\$9,304,231	71%	\$6,606,004	68%	\$9,759,932
Guam*		0%	\$981,525	100%	\$981,525	100%	\$981,525
Hawaii	\$2,400,000	47%	\$3,526,926	76%	\$2,680,464	53%	\$5,080,464
Idaho	\$1,663,663	40%	\$3,738,816	66%	\$2,467,619	60%	\$4,131,281
Illinois	\$35,373,413	84%	\$10,714,815	64%	\$6,857,482	16%	\$42,230,894
Indiana	\$18,180,421	87%	\$6,873,938	39%	\$2,680,836	13%	\$20,861,257
Iowa	\$3,414,751	58%	\$4,628,961	53%	\$2,453,349	42%	\$5,868,100
Kansas	\$1,478,068	34%	\$4,473,630	63%	\$2,818,387	66%	\$4,296,455
Kentucky	\$2,004,572	42%	\$5,462,165	50%	\$2,731,083	58%	\$4,735,654

¹⁶⁰ Source: Federal Emergency Management Agency, *Notice of Funding Opportunity: Fiscal Year 2019*; National Emergency Management Association, *2014 Biennial Report*; National Emergency Management Association, *2016 Biennial Report*; National Emergency Management Association, *2018 Biennial Report*. This table comprises data found in Table 6, Table 8, and Table 9 of this thesis.

State/Territory (alpha)	Operating Budget (excluding federal) Average	%	Federal EMPG FY19	% of EMPG Retained by the State EM	EMPG Amount Retained by the State EM	%	TOTAL
Louisiana	\$4,527,882	56%	\$5,583,804	65%	\$3,629,473	44%	\$8,157,355
Maine	\$1,182,837	45%	\$3,474,806	41%	\$1,424,670	55%	\$2,607,507
Marshall Islands*		0%	\$50,000	100%	\$50,000	100%	\$50,000
Maryland	\$2,124,862	40%	\$6,461,761	50%	\$3,230,881	60%	\$5,355,742
Massachusetts	\$6,504,050	55%	\$7,007,447	77%	\$5,395,734	45%	\$11,899,784
Michigan	\$5,858,302	48%	\$8,971,802	72%	\$6,459,697	52%	\$12,318,000
Micronesia*		0%	\$50,000	100%	\$50,000	100%	\$50,000
Minnesota	\$8,525,712	76%	\$6,187,759	44%	\$2,722,614	24%	\$11,248,326
Mississippi	\$4,877,622	73%	\$4,521,266	40%	\$1,808,506	27%	\$6,686,128
Missouri	\$2,691,927	50%	\$6,514,927	41%	\$2,671,120	50%	\$5,363,047
Montana	\$1,261,823	50%	\$3,299,499	39%	\$1,286,805	50%	\$2,548,628
Nebraska	\$1,586,882	100%	\$3,849,969	0%	\$0	0%	\$1,586,882
Nevada	\$740,037	24%	\$4,551,655	51%	\$2,321,344	76%	\$3,061,381
New Hampshire	\$4,339,290	72%	\$3,486,269	48%	\$1,673,409	28%	\$6,012,699
New Jersey	\$12,290,246	66%	\$8,281,372	76%	\$6,293,843	34%	\$18,584,089
New Mexico	\$2,605,275	54%	\$3,955,470	55%	\$2,175,509	46%	\$4,780,784
New York	\$7,470,000	49%	\$15,033,121	51%	\$7,666,892	51%	\$15,136,892
North Carolina	\$11,100,253	71%	\$9,217,971	49%	\$4,516,806	29%	\$15,617,059
North Dakota	\$7,744,557	82%	\$3,107,603	53%	\$1,647,030	18%	\$9,391,587
Northern Mariana*		0%	\$908,013	100%	\$908,013	100%	\$908,013
Ohio	\$6,289,406	62%	\$10,047,089	38%	\$3,817,894	38%	\$10,107,300
Oklahoma	\$612,290	32%	\$5,128,617	25%	\$1,282,154	68%	\$1,894,445
Oregon	\$2,139,065	67%	\$5,285,849	20%	\$1,057,170	33%	\$3,196,235
Pennsylvania	\$16,806,000	76%	\$10,756,709	49%	\$5,270,787	24%	\$22,076,787
Puerto Rico*		0%	\$4,653,729	100%	\$4,653,729	100%	\$4,653,729
Rhode Island	\$2,031,604	42%	\$3,296,331	85%	\$2,801,881	58%	\$4,833,485
South Carolina	\$2,841,788	49%	\$5,853,113	50%	\$2,926,557	51%	\$5,768,345

State/Territory (alpha)	Operating Budget (excluding federal) Average	%	Federal EMPG FY19	% of EMPG Retained by the State EM	EMPG Amount Retained by the State EM	%	TOTAL
South Dakota	\$727,038	29%	\$3,185,166	55%	\$1,751,841	71%	\$2,478,880
Tennessee	\$3,780,675	50%	\$6,923,547	54%	\$3,738,715	50%	\$7,519,390
Texas	\$4,560,673	24%	\$20,848,936	71%	\$14,802,745	76%	\$19,363,418
US Virgin Islands*		0%	\$942,924	100%	\$942,924	100%	\$942,924
Utah	\$1,315,100	33%	\$4,632,111	58%	\$2,686,624	67%	\$4,001,724
Vermont	\$2,317,206	49%	\$3,022,662	79%	\$2,387,903	51%	\$4,705,109
Virginia	\$10,446,664	87%	\$8,033,215	20%	\$1,606,643	13%	\$12,053,307
Washington	\$3,139,236	51%	\$7,409,645	40%	\$2,963,858	49%	\$6,103,094
West Virginia	\$2,879,840	68%	\$3,771,594	36%	\$1,357,774	32%	\$4,237,614
Wisconsin	\$4,492,552	68%	\$6,316,264	33%	\$2,084,367	32%	\$6,576,919
Wyoming	\$1,763,417	51%	\$2,991,828	56%	\$1,675,424	49%	\$3,438,841
TOTAL	\$395,472,505	68%	\$350,100,000	58%	\$188,150,176	32%	\$583,622,680

*Territories receive only federal funding for their operating budgets.

Table 13. NEMA State Operating Budget, EMPG FY19 Funding Allocation, and EMPG Retained by State EM
(Sorted)¹⁶¹

State/Territory	Operating Budget (excluding federal) Average	%	Federal EMPG FY19	% of EMPG Retained by the State EM	EMPG Amount Retained by the State EM	(sorted) %	TOTAL
Nebraska	\$1,586,882	100%	\$3,849,969	0%	\$0	0%	\$1,586,882
California	\$96,042,830	89%	\$27,741,329	44%	\$12,206,185	11%	\$108,249,015
Indiana	\$18,180,421	87%	\$6,873,938	39%	\$2,680,836	13%	\$20,861,257
Virginia	\$10,446,664	87%	\$8,033,215	20%	\$1,606,643	13%	\$12,053,307
Florida	\$58,064,401	86%	\$16,148,783	60%	\$9,689,270	14%	\$67,753,671
Illinois	\$35,373,413	84%	\$10,714,815	64%	\$6,857,482	16%	\$42,230,894
North Dakota	\$7,744,557	82%	\$3,107,603	53%	\$1,647,030	18%	\$9,391,587
Pennsylvania	\$16,806,000	76%	\$10,756,709	49%	\$5,270,787	24%	\$22,076,787
Minnesota	\$8,525,712	76%	\$6,187,759	44%	\$2,722,614	24%	\$11,248,326
Mississippi	\$4,877,622	73%	\$4,521,266	40%	\$1,808,506	27%	\$6,686,128
New Hampshire	\$4,339,290	72%	\$3,486,269	48%	\$1,673,409	28%	\$6,012,699
North Carolina	\$11,100,253	71%	\$9,217,971	49%	\$4,516,806	29%	\$15,617,059
Wisconsin	\$4,492,552	68%	\$6,316,264	33%	\$2,084,367	32%	\$6,576,919
West Virginia	\$2,879,840	68%	\$3,771,594	36%	\$1,357,774	32%	\$4,237,614
Oregon	\$2,139,065	67%	\$5,285,849	20%	\$1,057,170	33%	\$3,196,235
New Jersey	\$12,290,246	66%	\$8,281,372	76%	\$6,293,843	34%	\$18,584,089
Alabama	\$3,865,259	65%	\$5,728,503	37%	\$2,119,546.11	35%	\$5,984,805
Ohio	\$6,289,406	62%	\$10,047,089	38%	\$3,817,894	38%	\$10,107,300
Connecticut	\$4,593,196	59%	\$4,893,426	64%	\$3,131,793	41%	\$7,724,988
Iowa	\$3,414,751	58%	\$4,628,961	53%	\$2,453,349	42%	\$5,868,100

¹⁶¹ Source: Federal Emergency Management Agency, *Notice of Funding Opportunity: Fiscal Year 2019*; National Emergency Management Association, *2014 Biennial Report*; National Emergency Management Association, *2016 Biennial Report*; National Emergency Management Association, *2018 Biennial Report*. This table comprises data found in Table 6, Table 8, and Table 9 of this thesis.

State/Territory	Operating Budget (excluding federal) Average	%	Federal EMPG FY19	% of EMPG Retained by the State EM	EMPG Amount Retained by the State EM	(sorted) %	TOTAL
Louisiana	\$4,527,882	56%	\$5,583,804	65%	\$3,629,473	44%	\$8,157,355
Massachusetts	\$6,504,050	55%	\$7,007,447	77%	\$5,395,734	45%	\$11,899,784
New Mexico	\$2,605,275	54%	\$3,955,470	55%	\$2,175,509	46%	\$4,780,784
Alaska	\$2,550,350	54%	\$3,093,229	69%	\$2,134,328.01	46%	\$4,684,678
District of Columbia	\$3,353,188	52%	\$3,071,016	100%	\$3,071,016	48%	\$6,424,204
Washington	\$3,139,236	51%	\$7,409,645	40%	\$2,963,858	49%	\$6,103,094
Wyoming	\$1,763,417	51%	\$2,991,828	56%	\$1,675,424	49%	\$3,438,841
Tennessee	\$3,780,675	50%	\$6,923,547	54%	\$3,738,715	50%	\$7,519,390
Missouri	\$2,691,927	50%	\$6,514,927	41%	\$2,671,120	50%	\$5,363,047
Delaware	\$2,042,989	50%	\$3,239,095	64%	\$2,073,021	50%	\$4,116,010
Montana	\$1,261,823	50%	\$3,299,499	39%	\$1,286,805	50%	\$2,548,628
Arkansas	\$2,176,783	49%	\$4,538,597	49%	\$2,223,913	51%	\$4,400,696
New York	\$7,470,000	49%	\$15,033,121	51%	\$7,666,892	51%	\$15,136,892
South Carolina	\$2,841,788	49%	\$5,853,113	50%	\$2,926,557	51%	\$5,768,345
Vermont	\$2,317,206	49%	\$3,022,662	79%	\$2,387,903	51%	\$4,705,109
Michigan	\$5,858,302	48%	\$8,971,802	72%	\$6,459,697	52%	\$12,318,000
Hawaii	\$2,400,000	47%	\$3,526,926	76%	\$2,680,464	53%	\$5,080,464
Maine	\$1,182,837	45%	\$3,474,806	41%	\$1,424,670	55%	\$2,607,507
Arizona	\$2,586,657	42%	\$7,178,562	49%	\$3,517,495	58%	\$6,104,152
Kentucky	\$2,004,572	42%	\$5,462,165	50%	\$2,731,083	58%	\$4,735,654
Rhode Island	\$2,031,604	42%	\$3,296,331	85%	\$2,801,881	58%	\$4,833,485
Idaho	\$1,663,663	40%	\$3,738,816	66%	\$2,467,619	60%	\$4,131,281
Maryland	\$2,124,862	40%	\$6,461,761	50%	\$3,230,881	60%	\$5,355,742
Kansas	\$1,478,068	34%	\$4,473,630	63%	\$2,818,387	66%	\$4,296,455
Utah	\$1,315,100	33%	\$4,632,111	58%	\$2,686,624	67%	\$4,001,724
Oklahoma	\$612,290	32%	\$5,128,617	25%	\$1,282,154	68%	\$1,894,445
Georgia	\$3,153,928	32%	\$9,304,231	71%	\$6,606,004	68%	\$9,759,932

State/Territory	Operating Budget (excluding federal) Average	%	Federal EMPG FY19	% of EMPG Retained by the State EM	EMPG Amount Retained by the State EM	(sorted) %	TOTAL
South Dakota	\$727,038	29%	\$3,185,166	55%	\$1,751,841	71%	\$2,478,880
Nevada	\$740,037	24%	\$4,551,655	51%	\$2,321,344	76%	\$3,061,381
Colorado	\$953,928	24%	\$6,241,339	49%	\$3,058,256	76%	\$4,012,184
Texas	\$4,560,673	24%	\$20,848,936	71%	\$14,802,745	76%	\$19,363,418
American Samoa*		0%	\$907,271	100%	\$907,271	100%	\$907,271
Guam*		0%	\$981,525	100%	\$981,525	100%	\$981,525
Marshall Islands*		0%	\$50,000	100%	\$50,000	100%	\$50,000
Micronesia*		0%	\$50,000	100%	\$50,000	100%	\$50,000
Northern Mariana*		0%	\$908,013	100%	\$908,013	100%	\$908,013
Puerto Rico*		0%	\$4,653,729	100%	\$4,653,729	100%	\$4,653,729
US Virgin Islands*		0%	\$942,924	100%	\$942,924	100%	\$942,924
TOTAL	\$395,472,505	68%	\$350,100,000	58%	\$188,150,176	32%	\$583,622,680
	Sum	Calc	Sum	Average	Sum	Calc	Sum

*Territories receive only federal funding for their operating budgets.

Table 14. FEMA's Federal Disaster and Emergency Declarations, Organized Alphabetically¹⁶²

State/Territory (alpha)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TOTAL
Alabama	1	2	2		1		1	3	3	2	15
Alaska		2	2	1	2	1	1	1	3	1	14
American Samoa					1				2		3
Arizona	4			1	1				2	1	9
Arkansas	1	2		3	2	1	2	1		3	15
California	2	2		2	1	2		8	5	6	28
Colorado			1	4		1					6
Connecticut	1	5	2	2		1			2		13
Delaware	1	2	2				1				6
District of Columbia	2	3	3				1				9
Florida			2	1	1		3	5	2	3	17
Georgia		1			2	1	3	4	2	1	14
Guam					1	1			1	1	4
Hawaii		1	1		2		1		5		10
Idaho	1	1				1	1	4		1	9
Illinois	1	2		2						1	6
Indiana		1	1		1				1		4
Iowa	4	4		4	3	1	2	1	2	2	23
Kansas	2	3	1	2		1	1	3	1	3	17
Kentucky	2	2	1		1	4	1		2	1	14
Louisiana		3	2	1		1	3	4		5	19
Maine	2	2		1		1			2		8
Marshall Islands											0

¹⁶² Source: "All Disaster Declarations," Federal Emergency Management Agency, accessed January 13, 2020, <https://www.fema.gov/disaster/declarations>. Figures include only major disaster and emergency declarations; fire management or suppression declarations are not included.

State/Territory (alpha)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TOTAL
Maryland	2	3	3		1		2		2		13
Massachusetts	3	5	3	2		1			2		16
Michigan				1	1		1	1	1		5
Micronesia											0
Minnesota	4	3	1	2	1		1		1	2	15
Mississippi	2	3	2	1	1	1	2	4		4	20
Missouri	1	5		2	1	1	2	1		2	15
Montana	1	1	1	1	2		2		2	1	11
Nebraska	4	3		1	3	1		2	2	2	18
Nevada					1			2			3
New Hampshire	2	5	3	2		1		2	3	1	19
New Jersey	3	6	3			1	1		1		15
New Mexico	1	2	1	4	2			1			11
New York	2	6	2	2	2			2	1	1	18
North Carolina	3	3		3	1		2		3	3	18
North Dakota	4	3		5	1			1		1	15
Northern Mariana						2			4	2	8
Ohio		1	2	1					1	2	7
Oklahoma	5	5	2	2	1	2	2	3	1	4	27
Oregon		2	1		1		1	2		2	9
Pennsylvania	1	5	1	2	1		2		1		13
Puerto Rico	2	4						4		1	11
Rhode Island	2	2	2	1		1					8
South Carolina					2	2	2	2	2	2	12
South Dakota	7	1		4	1	2		1		5	21
Tennessee	2	6	1		2	1	1	1		2	16
Texas	2	2		3		2	4	1	1	3	18
US Virgin Islands	3							4		1	8

State/Territory (alpha)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TOTAL
Utah		2	2					1			5
Vermont	1	5	1	2	2	2		1	2	1	17
Virginia	2	4	3				2		3		14
Washington		1	2		4	3	2	1	1	1	15
West Virginia	4		6	1	1	5	1	1	2	1	22
Wisconsin	2	1	1	1			2	1	2	1	11
Wyoming	1	1				1		2			5
TOTAL	90	128	63	67	51	46	53	75	73	76	722

Table 15. FEMA's Total Federal Disaster and Emergency Declarations by State (Descending Order)¹⁶³

State/Territory	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TOTAL
California	2	2		2	1	2		8	5	6	28
Oklahoma	5	5	2	2	1	2	2	3	1	4	27
Iowa	4	4		4	3	1	2	1	2	2	23
West Virginia	4		6	1	1	5	1	1	2	1	22
South Dakota	7	1		4	1	2		1		5	21
Mississippi	2	3	2	1	1	1	2	4		4	20
Louisiana		3	2	1		1	3	4		5	19
New Hampshire	2	5	3	2		1		2	3	1	19
Nebraska	4	3		1	3	1		2	2	2	18
New York	2	6	2	2	2			2	1	1	18
North Carolina	3	3		3	1		2		3	3	18
Texas	2	2		3		2	4	1	1	3	18
Florida			2	1	1		3	5	2	3	17
Kansas	2	3	1	2		1	1	3	1	3	17
Vermont	1	5	1	2	2	2		1	2	1	17
Massachusetts	3	5	3	2		1			2		16
Tennessee	2	6	1		2	1	1	1		2	16
Alabama	1	2	2		1		1	3	3	2	15
Arkansas	1	2		3	2	1	2	1		3	15
Minnesota	4	3	1	2	1		1		1	2	15
Missouri	1	5		2	1	1	2	1		2	15
New Jersey	3	6	3			1	1		1		15
North Dakota	4	3		5	1			1		1	15

¹⁶³ Source: Federal Emergency Management Agency, "All Disaster Declarations." Figures include only major disaster and emergency declarations; fire management or suppression declarations are not included.

State/Territory	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TOTAL
Washington		1	2		4	3	2	1	1	1	15
Alaska		2	2	1	2	1	1	1	3	1	14
Georgia		1			2	1	3	4	2	1	14
Kentucky	2	2	1		1	4	1		2	1	14
Virginia	2	4	3				2		3		14
Connecticut	1	5	2	2		1			2		13
Maryland	2	3	3		1		2		2		13
Pennsylvania	1	5	1	2	1		2		1		13
South Carolina					2	2	2	2	2	2	12
Montana	1	1	1	1	2		2		2	1	11
New Mexico	1	2	1	4	2			1			11
Puerto Rico	2	4						4		1	11
Wisconsin	2	1	1	1			2	1	2	1	11
Hawaii		1	1		2		1		5		10
Arizona	4			1	1				2	1	9
District of Columbia	2	3	3				1				9
Idaho	1	1				1	1	4		1	9
Oregon		2	1		1		1	2		2	9
Maine	2	2		1		1			2		8
Northern Mariana						2			4	2	8
Rhode Island	2	2	2	1		1					8
US Virgin Islands	3							4		1	8
Ohio		1	2	1					1	2	7
Colorado			1	4		1					6
Delaware	1	2	2				1				6
Illinois	1	2		2						1	6
Michigan				1	1		1	1	1		5
Utah		2	2					1			5

State/Territory	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TOTAL
Wyoming	1	1				1		2			5
Guam					1	1			1	1	4
Indiana		1	1		1				1		4
American Samoa					1				2		3
Nevada					1			2			3
Marshall Islands											0
Micronesia											0
TOTAL	90	128	63	67	51	46	53	75	73	76	722

Table 16. NEMA State Operating Budget, EMPG FY19 Funding Allocation Retained by State EM, and FEMA Declarations¹⁶⁴

State/Territory	Operating Budget (excluding federal) Average	%	EMPG Amount Retained by the State EM	(sorted) %	State/Territory	Declarations (sorted)
Nebraska	\$1,586,882	100%	\$0	0%	California	28
California	\$96,042,830	89%	\$12,206,185	11%	Oklahoma	27
Indiana	\$18,180,421	87%	\$2,680,836	13%	Iowa	23
Virginia	\$10,446,664	87%	\$1,606,643	13%	West Virginia	22
Florida	\$58,064,401	86%	\$9,689,270	14%	South Dakota	21
Illinois	\$35,373,413	84%	\$6,857,482	16%	Mississippi	20
North Dakota	\$7,744,557	82%	\$1,647,030	18%	New Hampshire	19
Pennsylvania	\$16,806,000	76%	\$5,270,787	24%	Louisiana	19
Minnesota	\$8,525,712	76%	\$2,722,614	24%	Texas	18
Mississippi	\$4,877,622	73%	\$1,808,506	27%	New York	18
New Hampshire	\$4,339,290	72%	\$1,673,409	28%	North Carolina	18
North Carolina	\$11,100,253	71%	\$4,516,806	29%	Nebraska	18
Wisconsin	\$4,492,552	68%	\$2,084,367	32%	Kansas	17
West Virginia	\$2,879,840	68%	\$1,357,774	32%	Vermont	17
Oregon	\$2,139,065	67%	\$1,057,170	33%	Florida	17
New Jersey	\$12,290,246	66%	\$6,293,843	34%	Massachusetts	16
Alabama	\$3,865,259	65%	\$2,119,546	35%	Tennessee	16
Ohio	\$6,289,406	62%	\$3,817,894	38%	North Dakota	15
Connecticut	\$4,593,196	59%	\$3,131,793	41%	New Jersey	15
Iowa	\$3,414,751	58%	\$2,453,349	42%	Minnesota	15

¹⁶⁴ Source: Federal Emergency Management Agency, *Notice of Funding Opportunity: Fiscal Year 2019*; National Emergency Management Association, *2014 Biennial Report*; National Emergency Management Association, *2016 Biennial Report*; National Emergency Management Association, *2018 Biennial Report*; Federal Emergency Management Agency, “All Disaster Declarations.” This table comprises data found in Table 13 and Table 15 of this thesis.

State/Territory	Operating Budget (excluding federal) Average	%	EMPG Amount Retained by the State EM	(sorted) %	State/Territory	Declarations (sorted)
Louisiana	\$4,527,882	56%	\$3,629,473	44%	Washington	15
Massachusetts	\$6,504,050	55%	\$5,395,734	45%	Alabama	15
New Mexico	\$2,605,275	54%	\$2,175,509	46%	Arkansas	15
Alaska	\$2,550,350	54%	\$2,134,328	46%	Missouri	15
District of Columbia	\$3,353,188	52%	\$3,071,016	48%	Georgia	14
Washington	\$3,139,236	51%	\$2,963,858	49%	Alaska	14
Wyoming	\$1,763,417	51%	\$1,675,424	49%	Kentucky	14
Tennessee	\$3,780,675	50%	\$3,738,715	50%	Virginia	14
Missouri	\$2,691,927	50%	\$2,671,120	50%	Pennsylvania	13
Delaware	\$2,042,989	50%	\$2,073,021	50%	Maryland	13
Montana	\$1,261,823	50%	\$1,286,805	50%	Connecticut	13
Arkansas	\$2,176,783	49%	\$2,223,913	51%	South Carolina	12
New York	\$7,470,000	49%	\$7,666,892	51%	Montana	11
South Carolina	\$2,841,788	49%	\$2,926,557	51%	New Mexico	11
Vermont	\$2,317,206	49%	\$2,387,903	51%	Wisconsin	11
Michigan	\$5,858,302	48%	\$6,459,697	52%	Puerto Rico	11
Hawaii	\$2,400,000	47%	\$2,680,464	53%	Hawaii	10
Maine	\$1,182,837	45%	\$1,424,670	55%	Oregon	9
Arizona	\$2,586,657	42%	\$3,517,495	58%	Idaho	9
Kentucky	\$2,004,572	42%	\$2,731,083	58%	District of Columbia	9
Rhode Island	\$2,031,604	42%	\$2,801,881	58%	Arizona	9
Idaho	\$1,663,663	40%	\$2,467,619	60%	Northern Mariana	8
Maryland	\$2,124,862	40%	\$3,230,881	60%	Rhode Island	8
Kansas	\$1,478,068	34%	\$2,818,387	66%	Maine	8
Utah	\$1,315,100	33%	\$2,686,624	67%	US Virgin Islands	8
Oklahoma	\$612,290	32%	\$1,282,154	68%	Ohio	7
Georgia	\$3,153,928	32%	\$6,606,004	68%	Illinois	6

State/Territory	Operating Budget (excluding federal) Average	%	EMPG Amount Retained by the State EM	(sorted) %	State/Territory	Declarations (sorted)
South Dakota	\$727,038	29%	\$1,751,841	71%	Colorado	6
Nevada	\$740,037	24%	\$2,321,344	76%	Delaware	6
Colorado	\$953,928	24%	\$3,058,256	76%	Wyoming	5
Texas	\$4,560,673	24%	\$14,802,745	76%	Michigan	5
American Samoa*		0%	\$907,271	100%	Utah	5
Guam*		0%	\$981,525	100%	Guam	4
Marshall Islands*		0%	\$50,000	100%	Indiana	4
Micronesia*		0%	\$50,000	100%	American Samoa	3
Northern Mariana*		0%	\$908,013	100%	Nevada	3
Puerto Rico*		0%	\$4,653,729	100%	Marshall Islands	0
US Virgin Islands*		0%	\$942,924	100%	Micronesia	0
TOTAL	\$395,472,505	68%	\$188,150,176	32%		722

Note. Figures include only major disaster and emergency declarations; fire management or suppression declarations are not included.

* Territories receive only federal funding for their operating budgets.

LIST OF REFERENCES

- Asgary, Ali, Seyed M. Mehdi Moeini, and Nader Mehregan. "Willingness to Pay for Enhancing Local Emergency Preparedness Programmes: Evidences from Canada." *International Journal of Emergency Management* 8, no. 2 (2012): 168–81.
- Bardach, Eugene, and Eric M. Patashnik. *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving*. 5th ed. Los Angeles: CQ Press/SAGE Publications, 2016.
- Barnes, Brian. "Federal Preparedness Grants: An Investigation of the Impacts to Local and State Emergency Management Programs." Master's thesis, Eastern Kentucky University, 2017. <https://encompass.eku.edu/etd/505>.
- Cage, Caleb S. "The Nevada Family: Political Crisis Leadership and Resilience Narratives in the Silver State." Master's thesis, Naval Postgraduate School, 2017. <https://www.hsdl.org/?view&did=808383>.
- Chen, Gang. "Assessing the Financial Impact of Natural Disasters on Local Governments." *Public Budgeting & Finance* 40, no. 1 (Spring 2019): 22–44. <https://doi.org/10.1111/pbaf.12245>.
- Cobuluis, Karen L. "NEMA 2018 Biennial Report Now Available." Press Release. National Emergency Management Association, July 11, 2018.
- Council of State Governments. "Publications." Accessed January 29, 2022. <https://www.csg.org/work/publications/>.
- Crow, Deseraï A., Elizabeth A. Albright, Todd Ely, Elizabeth Koebele, and Lydia Lawhon. "Do Disasters Lead to Learning? Financial Policy Change in Local Government." *Review of Policy Research* 35, no. 4 (2018): 564–89. <https://doi.org/10.1111/ropr.12297>.
- Department of Homeland Security. *National Preparedness Goal*. 2nd ed. Washington, DC: Department of Homeland Security, 2015. <https://www.fema.gov/media-library/assets/documents/25959>.
- Donahue, Amy K., and Philip G. Joyce. "A Framework for Analyzing Emergency Management with an Application to Federal Budgeting." *Public Administration Review* 61, no. 6 (2001): 728–40. <https://doi.org/10.1111/0033-3352.00143>.
- Elbein, Saul. "Emergency Managers Face a Chaotic and Uncertain Future." *The Hill*, October 28, 2021. <https://thehill.com/homenews/news/577872-emergency-managers-face-a-chaotic-and-uncertain-future>.

- Federal Emergency Management Agency. *2018–2022 Strategic Plan*. Washington, DC: Federal Emergency Management Agency, 2018. <https://www.fema.gov/media-library/assets/documents/160940>.
- . “All Disaster Declarations.” Accessed January 13, 2020. <https://www.fema.gov/disaster/declarations>.
- . *Emergency Management Performance Grant Program Multi-Year Programmatic Guidance*. Washington, DC: Federal Emergency Management Agency, 2016. https://www.fema.gov/media-library-data/1464196875293-190ed88e1b63940c87121a3f0b97b8a5/EMPG_Multi_Year_Program_Guidance_Final.pdf.
- . “How a Disaster Gets Declared.” Accessed February 11, 2022. <https://www.fema.gov/disaster/how-declared>.
- . *Notice of Funding Opportunity: Fiscal Year 2019 Emergency Management Performance Grant Program*. Washington, DC: Department of Homeland Security, 2019. <https://www.fema.gov/grants/preparedness/emergency-management-performance/nofos>.
- Foerster, Jim. “While Frequency of Natural Disasters Is Increasing, Related Death Tolls Are Actually Decreasing.” *Forbes*, October 1, 2021. <https://www.forbes.com/sites/jimfoerster/2021/10/01/while-frequency-of-natural-disasters-increasing-related-death-tolls-are-actually-decreasing/>.
- Gruber, Jonathan. *Public Finance and Public Policy*. 3rd ed. New York: Worth Publishers, 2011. <http://155.0.32.9:8080/jspui/bitstream/123456789/755/1/Public%20Finance%20and%20Public%20Policy%20%28%20PDFDrive.com%20%29.pdf>.
- House Committee on Transportation and Infrastructure. *Emergency Management Performance Grants Reauthorization*. House Report 110–322. Washington, DC: House of Representatives, 2007. <https://www.congress.gov/110/crpt/hrpt322/CRPT-110hrpt322.pdf>.
- Jackman, Andrea, and Mario Beruvides. “What Emergency Responders Can Learn from the Business World.” *Harvard Business Review*, July 27, 2021. <https://hbr.org/2021/07/what-emergency-responders-can-learn-from-the-business-world>.
- Kahn, Laura H., and Jeremiah A. Barondess. “Preparing for Disaster: Response Matrices in the USA and UK.” *Journal of Urban Health* 85, no. 6 (November 2008): 910–22. <http://doi.org/10.1007/s11524-008-9310-y>.
- Kincaid, John. “State-Federal Relations: Federal Dollars Down, Federal Power Up.” In *The Book of the States, 2006*, 19–25. Washington, DC: Council of State Governments, 2006.

- Ladich, Samantha. "Asserting Collective State Sovereignty to Strengthen the National Network of Fusion Center." Master's thesis, Naval Postgraduate School, 2018. <https://www.hsdl.org/?view&did=811330>.
- Lindsay, Bruce Robert. "U.S. Disaster Policy: An Analysis of Federal Emergency Supplemental Appropriations." PhD diss., University of Delaware, 2011. ProQuest.
- McEntire, David A., and Gregg Dawson. "The Intergovernmental Context." In *Emergency Management: Principles and Practice for Local Government*, 57–70. Washington, DC: ICMA Press, 2007.
- Miao, Qing, Yilin Hou, and Michael Abrigo. "Measuring the Financial Shocks of Natural Disasters: A Panel Study of U.S. States." Paper No. 199. Syracuse: Syracuse University, Center for Policy Research, 2016. <https://surface.syr.edu/cpr/232>.
- Morag, Nadav. *Comparative Homeland Security: Global Lessons*. 2nd ed. Hoboken, NJ: Wiley, 2018.
- National Emergency Management Association. *2014 Biennial Report*. Lexington, KY: National Emergency Management Association, 2014.
- . *2016 Biennial Report*. Lexington, KY: National Emergency Management Association, 2016.
- . *2018 Biennial Report*. Lexington, KY: National Emergency Management Association, 2018.
- . "NEMA Partners." Accessed March 24, 2022. <https://www.nemaweb.org/index.php/partners#csg>.
- . "Who Are We?" Accessed March 24, 2022. <https://www.nemaweb.org/index.php/home/what-is-nema>.
- National Emergency Management Association and U.S. Council of International Association of Emergency Managers. *Emergency Management Performance Grants: Providing Returns on a Nation's Investment*. Lexington, KY: National Emergency Management Association, 2019. https://www.iaem.org/Portals/25/documents/2019-EMPG-ROI%20Report_NEMA-IAEM_FINAL.PDF?ver=2019-03-20-115532-323.
- Phaup, Marvin, and Charlotte Kirschner. "Budgeting for Disasters: Focusing on the Good Times." *OECD Journal on Budgeting* 10, no. 1 (June 2010): 1–24. <https://doi.org/10.1787/budget-10-5kmh5h6tzrns>.

- Prante, Tyler, and Alok K. Bohara. "What Determines Homeland Security Spending? An Econometric Analysis of the Homeland Security Grant Program." *Policy Studies Journal* 36, no. 2 (May 2008): 243–56. <http://dx.doi.org/10.1111/j.1541-0072.2008.00264.x>.
- Reamer, Andrew. *Census-Derived Datasets Used to Distribute Federal Funds*. Counting for Dollars 2020: Report #4. Washington, DC: George Washington University, Institute of Public Policy, 2018. <https://gwipp.gwu.edu/sites/g/files/zaxdzs2181/f/downloads/Counting%20for%20Dollars%20%234%20Census-derived%20Datasets%20rev%2005-19.pdf>.
- Reese, Shawn. *Department of Homeland Security Preparedness Grants: A Summary and Issues*. CRS Report No. R44669. Washington, DC: Congressional Research Service, 2016. <https://digital.library.unt.edu/ark:/67531/metadc944812/>.
- Sams, Joel. "Partners in Government." *Capitol Ideas*, no. 1 (2021): 20–23. https://issuu.com/csg.publications/docs/ci_issue_1_2021_web/s/11720602.
- U.S. Census Bureau. "Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2019 (NST-EST2019-01)." 2019. <https://www.census.gov/data/datasets/time-series/demo/popest/2010s-state-total.html>.
- . "Methodology." Accessed March 22, 2022. <http://www.census.gov/programs-surveys/popest/technical-documentation/methodology.html>.
- . "Terms and Definitions." Accessed March 22, 2022. <http://www.census.gov/programs-surveys/popest/guidance-geographies/terms-and-definitions.html>.
- . "U.S. Census Bureau at a Glance." Accessed February 2, 2022. <https://www.census.gov/about/what/census-at-a-glance.html>.
- Vogel, Ronald K. "Multilevel Governance in the United States." In *Spheres of Governance: Comparative Studies of Cities in Multilevel Governance Systems*, edited by Harvey Lazar and Christian Leuprecht, 257–93. Montréal: McGill-Queen's University Press, 2007.
- Yin, Robert K. *Case Study Research: Design and Methods*. 5th ed. Los Angeles: Sage Publications, 2014.

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