



Published in final edited form as:

Health Secur. 2020 December ; 18(6): 489–495. doi:10.1089/hs.2020.0031.

Governors' Use of Executive Orders and Proclamations in Hurricane Response, 2006–2018

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Abstract

Hurricanes can destroy or overwhelm communities and cause or exacerbate health conditions. Legal mechanisms and practices may aid or impede hurricane response. In the United States, where states have primary public health responsibility, state governors possess legal powers to address hurricanes. They often exercise these powers using executive orders and proclamations—legal mechanisms that direct public and private parties. Although executive orders and proclamations are critical for hurricane preparedness and response, how governors use them to respond to hurricanes is not fully understood. Using legal epidemiology, we systematically identified and analyzed hurricane-related executive orders and proclamations issued in the United States from January 1, 2006, through December 31, 2018. We found 468 relevant executive orders and proclamations, 14% of which were issued, at least in part, to benefit a jurisdiction other than the issuer's state. We observed variations in when and where such orders and proclamations were issued. Executive orders and proclamations were most commonly used to direct government response or recovery (32%), handle and administer government resources (31%), and suspend legal requirements perceived to inhibit response (27%). Fewer orders and proclamations regulated private parties (10%). Understanding how governors use executive orders and proclamations to respond to hurricanes can bolster future preparedness and response efforts.

Keywords

Public health preparedness/response; Hurricanes; Police powers; Governor executive orders/proclamations; Policy

Introduction

Hurricanes can cause or contribute to injury or death and catalyze or exacerbate communicable and noncommunicable diseases and mental health problems. Moreover, hurricanes often disproportionately affect populations already at risk.¹ For instance, although the exact number of deaths due to Hurricane Katrina is not known, some have estimated as many as 970 deaths in Louisiana alone, many by drowning, with almost half of the deceased over age 75.² Hurricanes can disproportionately impact individuals with preexisting medical conditions; for example, about 89% of the 129 deaths linked to 2017's Hurricane Irma across Florida, Georgia, and North Carolina were attributed to this effect.³ Hurricanes can also modify various health risks or outcomes, from mold exposure⁴ to displacement-associated anxiety, depression, posttraumatic stress disorder, and stress.⁵

State and local governments in the United States have primary responsibility for hurricane preparedness and response and serve as initial responders, with the federal government providing assistance.⁶ This distribution of authority is based on the federalism principle embedded in the US legal system, which outlines roles for both the federal and state governments to protect the health of the public but assigns primary public health responsibility to states and, through states, to localities.^{7,8} Central to state preparedness and response are state emergency operations plans, like the plan in Texas,⁹ that outline how to activate and coordinate disaster response. In the context of hurricanes, state statutes, rules, and legal practices can also enable preparedness and response.^{10,11} Governors can also use executive orders or proclamations to declare emergencies and trigger laws, processes, and requirements that support response efforts.¹² Managing hurricanes through executive orders and proclamations is part of a broader pattern to adopt and implement state health policy via executive action.^{13,14}

Despite the growing recognition that state executive orders and proclamations are important for public health legal preparedness, no systematic analysis has been conducted to determine how governors use executive orders and proclamations to respond to the impacts of hurricanes. This is an important question because it can inform the use of executive orders and proclamations in hurricane response. This study examined the characteristics of recent executive orders and proclamations issued by US governors in response to hurricanes to inform state-level preparedness and response.

Methods

We used a standard legal epidemiology approach¹⁵ to collect and examine relevant executive orders and proclamations issued between January 1, 2006, and December 31, 2018. First, we defined search terms to identify executive orders and proclamations through 2 legal databases: Thomson Reuters Westlaw (hereinafter “Westlaw”) and Lexis Advance. In Westlaw, we used the Netscan Executive Orders database and the search string: ((declar! procla! & emergency disaster) & (hurricane “tropical storm”)) & DA (aft 12-31-2005 & bef 01-01-2019). In Lexis Advance, we searched the state and territorial Statutes and Legislation database and the Administrative Codes and Regulations database and the search string: (declar! or procla!) and (emergency or disaster) & (hurricane or “tropical storm”) & date

>12/31/2005 and <01/01/2019 & ((heading (exec! order or eo or e.o.) or cite (exec! order or e.o. or eo) or heading (proc! or po or p.o.) or cite (proc! or po or p.o.)). Search strings were developed iteratively and finalized after consultation with a law librarian. The searches generated 1,711 results.

Next, we screened each executive order and proclamation in the sample for inclusion. We included executive orders and proclamations issued by governors in response to a hurricane (or a tropical storm that later became a hurricane) from January 1, 2006, through December 31, 2018. We chose to examine hurricanes occurring after the 2005 hurricane season due to the significant changes in hurricane response strategies after hurricanes Katrina and Rita. Executive orders and proclamations were included if they made clear, typically in introductory “WHEREAS” language, that they were issued in response to or in anticipation of a hurricane or a tropical storm that evolved into a hurricane. Through this process, we excluded 1,011 executive orders and proclamations that did not meet inclusion criteria; after removing 232 duplicates, 468 executive orders and proclamations met inclusion criteria for further analysis.

Because a single executive order or proclamation can contain multiple response-related directives, we identified discrete actions within each order and proclamation. We defined an action as an instruction or delegation of authority to issue an instruction. To do this, 3 researchers independently reviewed 2 subsamples of 5% of the 468 executive orders and proclamations. Researchers identified response-related actions contained in each document using an a priori list of actions as a guide. This list was modified through debriefing conversations to better reflect the contents of the orders and proclamations, yielding a codebook of actions. Next, one-third of the 468 orders and proclamations was divided between 3 researchers; 1 researcher read each document to determine which actions it contained and assigned codes based on the codebook. As a team, we noted and discussed any coding uncertainties and revisited the codebook to make any minor modifications. This process was repeated twice for the remaining two-thirds of orders and proclamations. Data were recorded in a spreadsheet and analyzed using descriptive statistics.

Results

Distribution of Executive Orders and Proclamations

The number of relevant executive orders and proclamations in the dataset varied by year. Governors issued the fewest in 2007 ($n = 3$) and the most in 2018 ($n = 106$). There were notable upticks in the number of executive orders and proclamations issued in 2008, 2012, 2017, and 2018 (Figure 1). Issuance also varied by hurricane, with almost 44% targeting 4 hurricanes: Sandy (14%), Harvey (11%), Florence (10%), and Irma (9%) (Figure 2). Governors further issued 21 orders and proclamations that cited 2 or more hurricanes (eg, Gustav and Ike).

The executive orders and proclamations analyzed were geographically dispersed; 65% ($n = 33$) of states (including Washington, DC) had issued at least 1 executive order or proclamation that met inclusion criteria (Figure 3). Two geographic patterns emerged. First, many of the 18 states with no relevant executive orders or proclamations in our dataset were

in the western United States (including Alaska and Hawaii). Second, states that are not prone to hurricanes (eg, Kansas, Minnesota, Missouri, Tennessee, Utah) issued executive orders and proclamations addressing hurricanes to either provide aid to other states or to address the impacts of a hurricane in their own borders (eg, to receive evacuees or respond to fuel shortages caused by a hurricane).

About 86% (n = 402) of relevant orders and proclamations were issued for the sole benefit of the issuing jurisdiction (ie, a state anticipating or addressing the impacts of a hurricane within its own borders). However, 14% (n = 67) of the executive orders and proclamations were issued, at least in part, for the benefit of a jurisdiction other than the governor's state. For instance, in response to Hurricane Harvey, which primarily affected Texas and Louisiana, Oklahoma's governor issued an order that waived procurement restrictions to enable the state to "adequately respond to the mutual aid requests and needs of the Gulf Coast states."¹⁶

Actions Within Executive Orders and Proclamations

Within the orders and proclamations, 1,565 discrete actions were identified; these fell into 4 categories: (1) directing government response or recovery (32%), (2) handling and administering government resources (31%), (3) suspending legal requirements (27%), and (4) regulating private parties (10%).

Of the 1,565 actions within the executive orders and proclamations, 32% (n = 501) focused on directing government response or recovery. This included declaring emergencies (n = 151) and activating response plans (n = 112). For example, a New Mexico order issued as a result of Hurricane Irma contained several actions related to governmental response and recovery: it declared an emergency, activated the state's emergency operations center, and required the emergency management agency to coordinate all resource requests from the state of Florida.¹⁷

Thirty-one percent (n = 485) of the actions within the executive orders and proclamations involved handling and administering government resources to assist in response. These actions included (1) ordering the use of government property (n = 94), (2) directing government personnel (n = 97), (3) activating the state's National Guard (n = 70), (4) providing for response funding (n = 76), and (5) employing resource-sharing across jurisdictions through interstate mutual aid agreements (n = 47). A New Jersey executive order issued in response to Hurricane Gustav illustrates 3 of these actions: it "reserve[s] the right to utilize and employ all available resources of the State government and of each and every political subdivision of the State, whether of persons, properties, or instrumentalities," (ie, use of government property and of government personnel) and orders identifying "resources that are available for response to [Emergency Management Assistance Compact (EMAC)] requests" (ie, activates the authority to respond to resource requests from other states through EMAC).¹⁸

Approximately one-quarter (n = 419, 27%) of actions within the executive orders and proclamations involved suspending legal requirements perceived to inhibit hurricane response. Most of these suspensions (n = 370) changed or waived specific legal

requirements, such as rules applicable to vehicles (n = 117); government procurement, spending, or contracting rules (n = 59); and election procedures (n = 21). Twelve percent (n = 49) of these suspensions, however, were broad in nature and purported to suspend all legal requirements that inhibited response. A specific order or proclamation sometimes suspended multiple legal requirements, whether broad or narrow in nature. For example, a Florida order issued in response to Hurricane Michael contained specific suspensions (ie, suspension of licensure or credentialing laws to permit healthcare providers licensed in another state to practice temporarily in Florida, and suspension of laws governing dispensing of prescription medications to allow pharmacists to dispense 30 days of maintenance medications) and also contained broad suspension language (ie, it “suspend[s] the effect of any statutes, rules, or orders that would in any way prevent, hinder, or delay any mitigation, response, or recovery action necessary to cope with this emergency”).¹⁹

Finally, 10% (n = 160) of the 1,565 actions within the executive orders and proclamations regulated private parties, including individuals, business entities, and property owners. Most of these actions ordered or authorized anti-price gouging prohibitions (n = 59), evacuations (n = 40), control of ingress (n = 17), and penalties for violating the order or proclamation (n = 14). The governor of Virginia, for example, issued an order in response to Hurricane Irene that activated statutory anti-price gouging provisions, outlined penalties for violating evacuation orders, and facilitated control of ingress and egress.²⁰ A Louisiana executive order issued in response to Hurricane Gustav required lodging facilities “to make every effort to allow utility restoration personnel to occupy and/or continue to occupy such rooms or facilities under the normal terms, conditions and rates of the lodging facility.”²¹ Each of these actions required or prohibited conduct of private parties.

Discussion

This study examined recent gubernatorial executive orders and proclamations issued across the United States in response to hurricanes. The frequency with which governors issue hurricane-related executive orders and proclamations fluctuates. This might be explained by the varying nature of hurricane seasons. For example, executive orders and proclamations were issued most frequently in 2018 (n = 106), which included 2 major hurricanes in the Atlantic (Florence and Michael) that affected at least 3 states (eg, Florida, North Carolina, South Carolina).²² In contrast, only 3 hurricane-related executive orders and proclamations were issued in 2007, which was considered a relatively “quiet” US hurricane season.²³ In some instances, executive orders and proclamations related to a previous year’s hurricane were issued in a quiet hurricane year (eg, all 4 orders and proclamations from 2013 that we observed were issued for Hurricane Sandy, which occurred in late 2012). Nevertheless, for the most part, the frequency of executive orders and proclamations corresponded with the frequency of hurricanes.

Findings indicate that governors frequently use executive orders and proclamations to implement statewide hurricane response efforts, highlighting the importance of governors in hurricane response. This includes declaring emergencies within states, activating or continuing to implement existing response plans, and requiring interagency cooperation or coordination. In addition, because executive orders and proclamations can activate plans and

contain directives to government agencies, planning and response efforts should involve finding, understanding, and assessing the scope of executive orders and proclamations as a tool to mitigate the impact of disasters.

This analysis also suggests that executive orders and proclamations are frequently used to manage government resources in a hurricane, including personnel, property, and funding. The use of executive orders and proclamations in resource management suggests that they may serve as efficient mechanisms to quickly deploy available assets when a hurricane strikes. The finding that 70 orders—15% of all 468 orders and 36% of the 196 orders that handled or administered government resources—activated a state's National Guard reflects the fact that the National Guard plays an important role in hurricane resource deployment. Our findings confirm that governors also use executive orders and proclamations to deploy resources to other jurisdictions experiencing hurricanes. Mutual aid agreements, such as EMAC, are designed to facilitate cross-jurisdictional assistance during disasters.²⁴ Since governors use executive orders and proclamations to operationalize interstate resource-sharing after hurricanes, these mechanisms are critical for states both seeking and providing aid, regardless of geography.

During a hurricane response, governors often use executive orders and proclamations to suspend legal requirements that might inhibit response. Executive orders and proclamations contained blanket suspensions (ie, suspension of any requirements that inhibited hurricane response) and more specific suspensions (eg, procedures for elections). The most common type of suspension waived laws impacting response vehicles ($n = 117$), a power used in 25% of all orders and proclamations. This suggests that many states have found certain transportation-related legal requirements (eg, limitations on hours worked, weight restrictions, permits) detrimental to hurricane response. Emergency response planners and policymakers may benefit from examining the legal barriers affecting response vehicles and the utility of waiving these requirements in future disasters while also considering the potential risks of suspending safety measures. While suspensions may afford a level of nimbleness during a hurricane response and are a common power held by governors,¹² we know little about the actual implementation of suspensions. Future studies should determine the extent to which these different types of suspensions are implemented in practice to aid emergency planners.

About 10% of the orders and proclamations regulated private parties, which raises questions about the boundaries of gubernatorial legal authority. For instance, how is an anti-price gouging provision within an executive order or proclamation communicated to private parties and enforced during a hurricane? And what legal force does it carry? While 59 executive orders and proclamations activated anti-price gouging laws, legal and economic scholars have raised concerns about the efficacy of such controls.²⁵ Determining the legal boundaries of executive orders and proclamations to regulate private parties and better understanding their implementation could help states craft laws to support response.

Additionally, in some notable instances, states that did not experience the physical impacts of hurricanes used executive orders solely to address the indirect impacts within their borders. For example, in 2017, Hurricane Nate threatened to disrupt the supply of propane to

North Dakota, potentially threatening farmers' ability to dry harvested grains. As a result, North Dakota's governor declared an emergency to waive hours of service limitations on commercial motor vehicles transporting propane into the state.²⁶ Following Hurricane Harvey in 2017, the governor of Michigan took similar action to suspend laws related to fuel vapor pressure to address the disruption in fuel refinery production in the Gulf Coast.²⁷ These executive orders and proclamations demonstrate that all states, regardless of geography, may benefit from considering the use of gubernatorial emergency powers to address the far-reaching impacts of hurricanes.

A strength of this study is its use of a systematic and literature-informed approach to find and analyze relevant executive orders and proclamations. However, this study also has several limitations that should inform interpretation of its results. First, although we searched the 2 most commonly used legal research databases, the databases did not contain every executive order and proclamation of interest. For example, they contained no hurricane executive orders or proclamations for Alabama or Puerto Rico, despite both jurisdictions having used orders or proclamations to respond to recent hurricanes. In fact, the US Federal Emergency Management Agency, which catalogs Stafford Act disaster declarations, indicates that 6 of the 18 states and 3 of the 5 territories with no relevant state executive orders or proclamations in our dataset had hurricane-related federal declarations.²⁸ These jurisdictions did not appear in our dataset because any relevant orders or proclamations were not housed in the databases we used. We selected not to seek out these orders to preserve repeatability and because those jurisdictions may have met the legal prerequisite under the Stafford Act to confirm "that the Governor has taken appropriate action under State law and directed the execution of the State emergency plan"^{29,30} without issuing an emergency declaration via executive order or proclamation.

This limitation highlights a need for legal databases to collect executive orders and proclamations from all US states and territories comprehensively to allow for complete and repeatable analyses of state and territorial legal authorities. Second, we did not distinguish between directives and authorizations related to specific actions. For example, we treated orders or proclamations that *directed* and those that *permitted* government agencies to use resources identically, as we could not determine whether directives were, in fact, implemented and therefore distinct from authorizations. It is possible that a more granular analysis would yield additional insights. Finally, our analysis focused on the text of the executive orders and proclamations rather than on the broader statutory and regulatory authorities within each jurisdiction. This approach allowed us to identify trends in gubernatorial use of emergency powers through executive orders and proclamations, but state-specific legal powers may affect the authorities for governors to adopt requirements using an order or proclamation as well as the actual implementation of a given order or proclamation.

Conclusion

States can use executive orders and proclamations to respond to hurricanes affecting them directly and to support other jurisdictions experiencing hurricanes. The speed and ease with which governors can issue and modify executive orders and proclamations may make them

particularly effective vehicles for addressing disasters, during which community circumstances and needs are often in flux. Our findings show that, to minimize the devastating impacts of hurricanes, governors regularly use executive orders and proclamations to direct the response activities of governmental entities, to deploy and control resources, to suspend legal requirements, and to regulate private parties. Given this finding, states should actively consider the contours of their governor's authority and the potential role of executive orders and proclamations when developing preparedness plans.

Acknowledgments

The authors thank their respective institutions: the University of Nevada, Las Vegas; the Public Health Law Program in the Center for State, Tribal, Local, and Territorial Support and the Office of Scientific Integrity in the Office of Science, both at the US Centers for Disease Control and Prevention; and the Johns Hopkins Bloomberg School of Public Health. The authors also thank Julia Shelburne, 2019 JD candidate, University of Georgia School of Law, for her contribution to the data collection and analysis efforts and Matthew Isihara, 2020 JD/MPA candidate, University of Georgia School of Law and School of Public and International Affairs, for his research assistance. The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the US Centers for Disease Control and Prevention.

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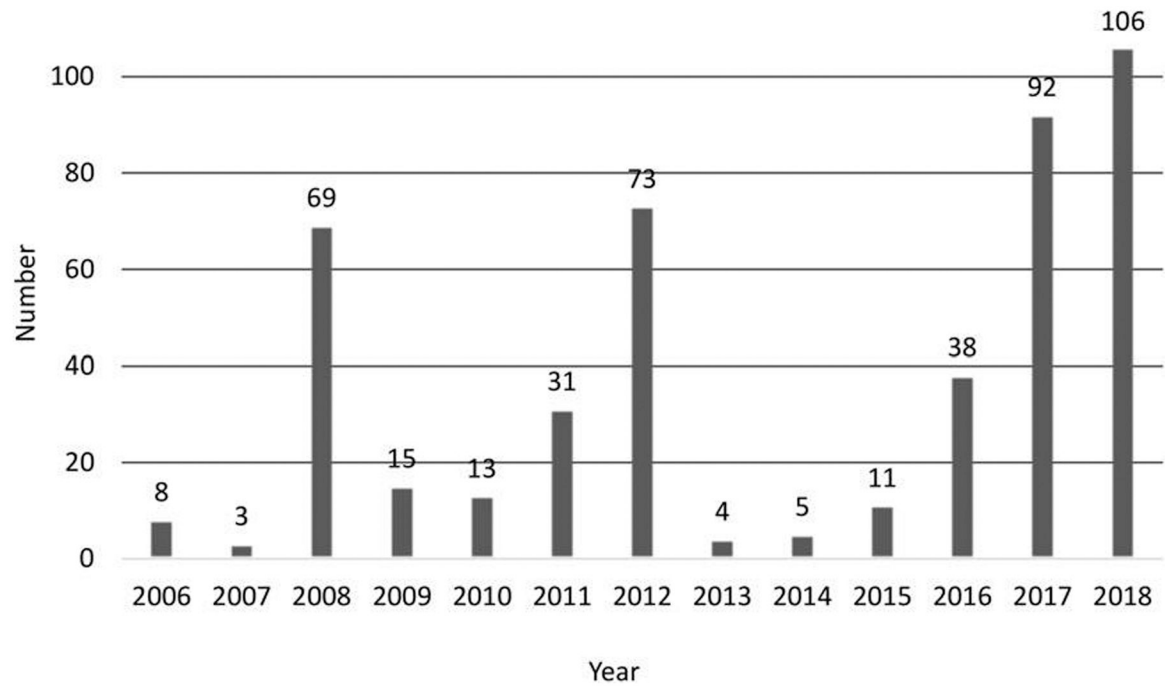


Figure 1. Executive orders and proclamations issued by year across 50 states and Washington, DC, January 1, 2006 to December 31, 2018.

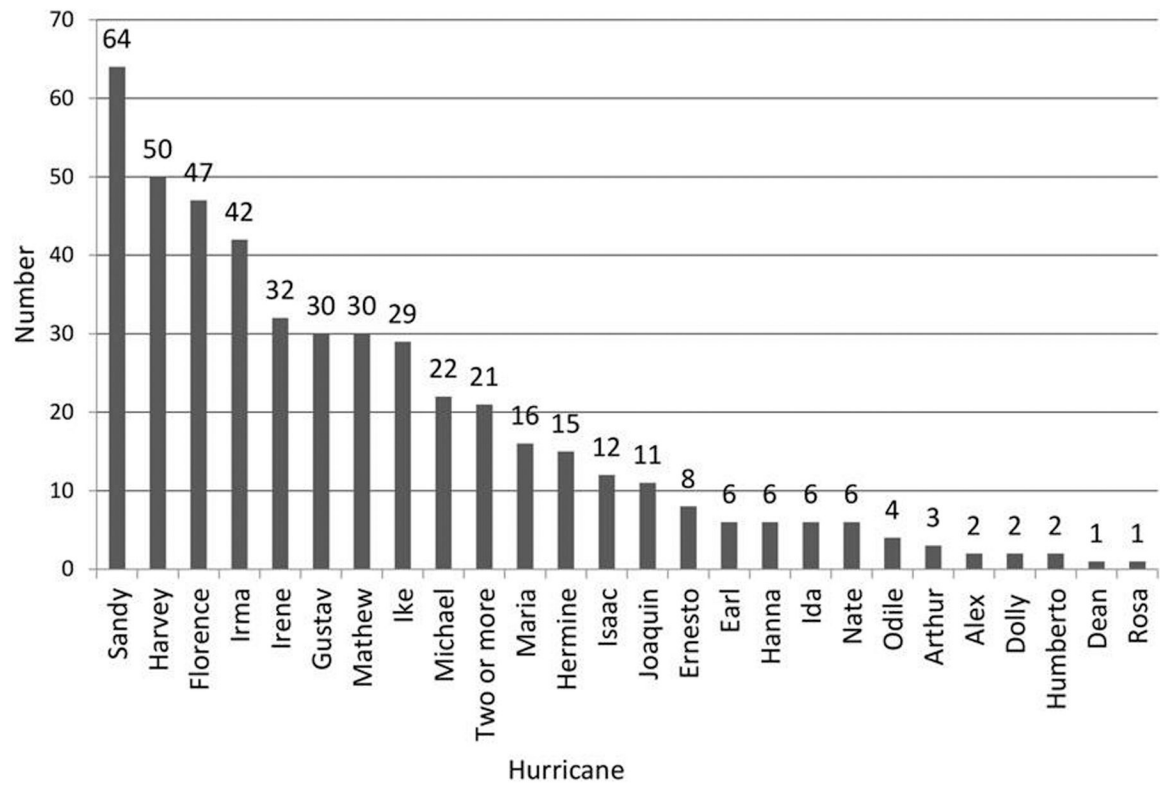


Figure 2.

Executive orders and proclamations issued by hurricane across 50 states and Washington, DC, January 1, 2006 to December 31, 2018.

