

THE URGENCY EMERGENCY:
IMMEDIATE COMPREHENSIVE PLANNING NEEDED IN THE PERFORMING
ARTS AS RISKS GROW FROM CLIMATE CHANGE AND TERRORISM

Kevin Meoak

Major paper submitted to the faculty of Goucher College in partial
Fulfillment of the requirements for the degree of
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Abstract

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Performing arts organizations need to make comprehensive emergency planning an immediate priority. In the decade and a half since Hurricane Katrina hit New Orleans, dozens of performing arts organizations have been impacted by climate-change related weather events. Science tells us the number of organizations impacted by climate change is going to grow significantly over the next fifty years.

In the same time frame, terror attacks have been growing in the United States. Cultural and religious institutions are increasingly at risk as a result of a growth in far-right violent extremism. Mass casualty attacks are on the rise, and terrorism-related cyberattacks are on the rise as well.

A natural disaster or terror attack could close a performing arts organization for days, months, or even years. This is why adopting a comprehensive emergency action

plan will better ensure the survival of a performing arts organization in the wake of a disaster caused by climate-change associated weather events or acts of terrorism.

This paper makes the case for emergency planning by citing the science behind climate change and analyzing the growing risks from terrorism. Case studies of organizations that have been impacted by these events are included to demonstrate how elements of planning or a lack of planning can impact recovery efforts. In addition, a history of emergency planning efforts in the performing arts since Hurricane Katrina hit in 2005 is included for context. Arts administrators have more resources for planning than ever before and can use these tools to enable their organizations to deliver on their mission even in the wake of a disaster.

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This paper is dedicated to my wife, Corinne DeVries. She has been my rock throughout this process, my biggest champion, and my best editor. Without her, none of this would be possible.

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Introduction

In the span of less than two months in 2017, performing arts organizations in Houston and a concert festival in Las Vegas suffered catastrophic losses. The first incident occurred at the end of August when Hurricane Harvey hit Houston and its surrounding areas. The storm brought the most significant tropical rainfall event recorded in the United States and resulted in historic flooding in the Galveston Bay region (Blake et al., *Harvey* 6). More than 300,000 structures and 500,000 cars were flooded, with damages estimated at \$125 billion by the National Hurricane Center (9).

Performing arts venues in the Houston area were particularly hard hit. The Wortham Center--home to the Houston Grand Opera, Houston Ballet, and several smaller arts organizations--suffered \$100 million in damages and was closed for a full year (Pulsinelli). The companies were forced to relocate during the repair work and to curtail their programming. Significant funds and resources were required in order to repair the facility and a large amount of revenue was lost due to canceled performances, 229 in total over the course of a year.

Just down the street, one of the Alley Theater's two theatrical spaces was submerged under ten-foot high water. The flood waters also destroyed a seventy-year-old prop collection, a newly renovated lobby, and the power infrastructure for the building. The damages totaled over \$15 million and their main stage theater was closed for two

months. In total, seventy-one arts groups in the city of Houston were affected by Hurricane Harvey (Pulsinelli).

Less than two months later, the deadliest mass shooting in modern United States history took place on October 1 at the Route 91 Harvest Festival in Las Vegas (Medina and Turkewitz). A gunman opened fire on a concert with 22,000 people in attendance from the thirty-second floor of the nearby Mandalay Bay Hotel. Fifty-eight people were killed and more than eight hundred sustained injuries. Authorities were unable to establish a motive for the shooter, but the county sheriff has stated that he personally believes it was an act of terrorism. MGM Resorts is the owner of both Mandalay Bay and the Route 91 Harvest Festival and it is estimated that they could face as many as 2,500 wrongful death lawsuits and \$600 million in liability costs (Goldstein).

In 2017, the United States saw a record year of damages from weather events and a significant rise in terror threats and attacks. The National Oceanic and Atmospheric Administration, also known as NOAA, reported sixteen natural disasters with damages totaling over one billion dollars (“Billion-Dollar Weather”). This includes losses caused by drought, flooding, freeze, severe storms, hurricanes, wildfires, or winter storms. The final tally for the calendar year was \$306 billion in related costs.

Over the last forty years, the average number of billion-dollar disasters has risen every decade. Adjusting the loss totals for inflation, the US averaged 2.8 of these events annually from 1980-1989. In the partial decade measuring from 2010-2018, that number has risen to an average of 11.7 events per year costing more than a billion dollars, amounting to a four hundred percent increase over the rate in the 1980s (fig. 1).

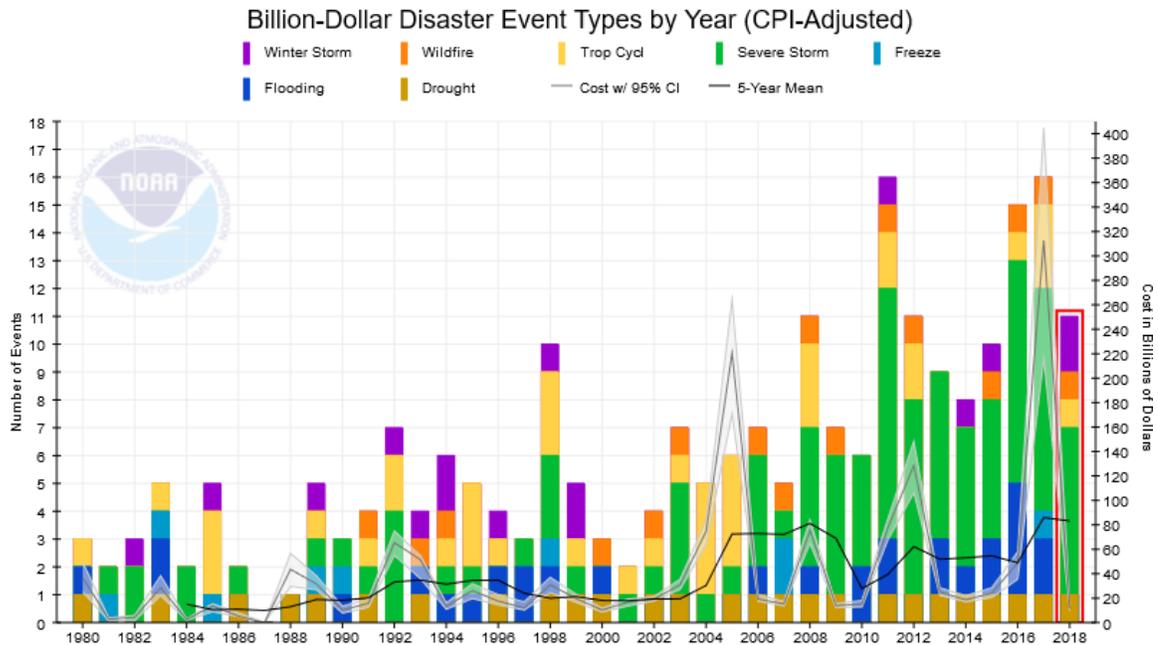


Fig. 1. (“Billion-Dollar Weather”)

At the same time that natural disasters are increasing in frequency, so are terror attacks. The Center for Strategic and International Studies, a nonprofit policy research organization, reported a quadrupling of domestic terror events from 2016 to 2017 and noted an alarming increase in violent extremism within the US (Jones). The Global Terrorism Database maintained by the University of Maryland shows a steady increase of incidents from 2008 – 2017 (“Global Terrorism Database”) (fig. 2). There were 292 cases of terrorism within the United States during that period, compared with 236 cases in the ten years preceding (fig. 3). However, the differences between the two time periods are stark. Attacks steadily declined from 1999 – 2007, and then started rising again from 2008 – 2017.

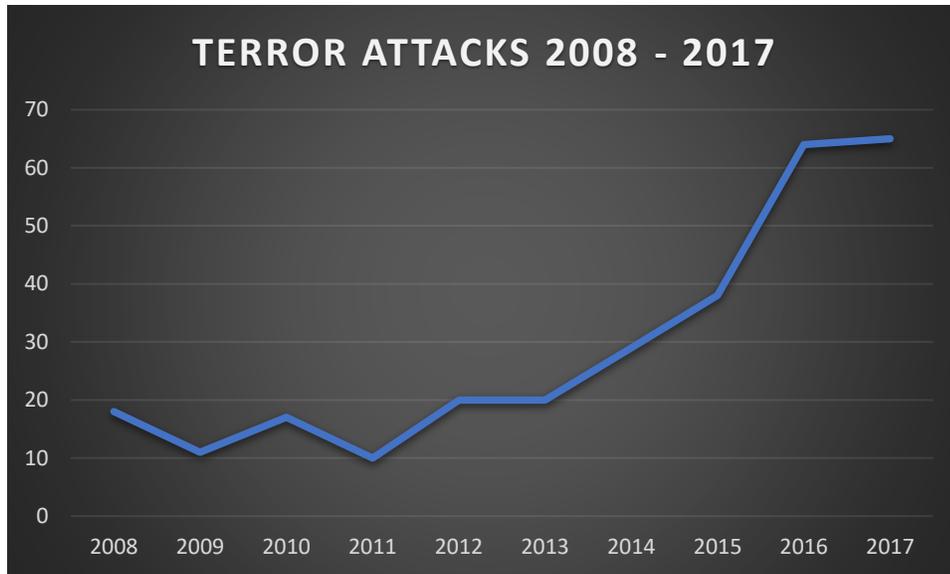


Fig. 2 (“Global Terrorism Database”)

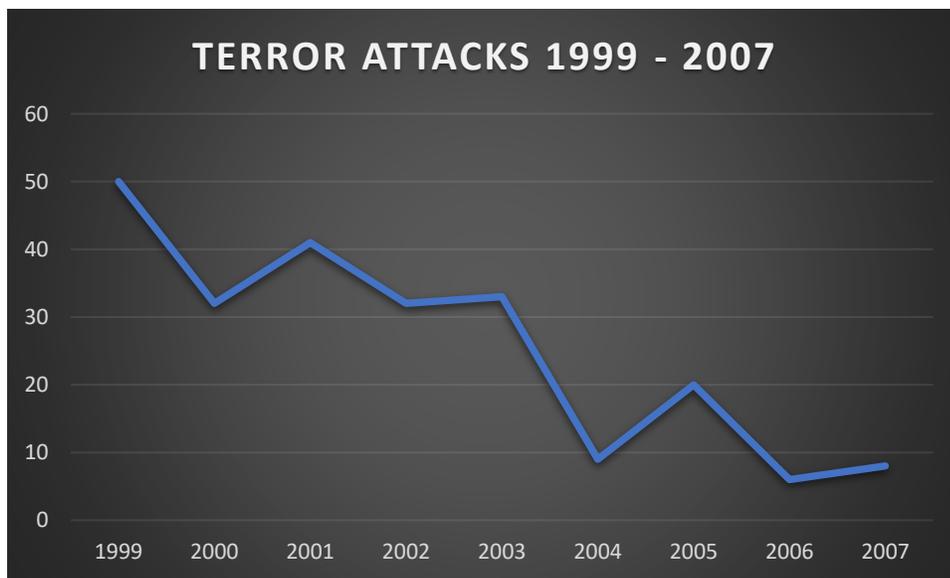


Fig. 3 (“Global Terrorism Database”)

Performing Arts Readiness, a three-year project supported by a grant from the Andrew W. Mellon Foundation, notes on its website that “performing arts organizations are especially vulnerable to disasters and emergencies which can halt performances, sometimes indefinitely, and can put an organization out of business overnight”

(“Project”). Regional theaters, on average, realize 55% of their revenue from earned income (*Theatre Facts 2017*), meaning that a prolonged cancellation of performances is financially untenable. For this reason, Performing Arts Readiness provides a loss-of-income calculator on its website that allows performing arts organizations to calculate how much revenue damage a loss of performances would result in, furthering the case for the vulnerability of the performing arts (“Project”).

In this context, the sector must be prepared for the potential impacts of events like these. Adopting a comprehensive emergency action plan will better ensure the survival of a performing arts organization in the wake of a disaster caused by climate-change associated weather events or acts of terrorism.

Climate change and terrorism present substantial and growing risks to performing arts organizations. A 2016 convening on Readiness and Resilience by the National Endowment for the Arts, commonly referred to as the NEA, found that both of these issues remain a top concern in the field (*Readiness*). This paper will detail the science and data behind this growing risk environment, review incidents in which performing arts organizations were impacted by related events, cite work on readiness being done in the field, and analyze the benefits of planning. Resources available to arts administrators will be examined while detailing the evolution of emergency planning in the field with a forward look into developing trends in the industry.

For the purposes of this paper, performing arts organizations are defined as nonprofit entities that produce, present, teach, or act as service organizations for the performing arts. As noted above, this sector describes survival in terms of readiness and resilience. A white paper published in 2012 by the National Coalition for Arts

Preparedness and Response¹, also known as NCAPER, states that readiness is important to make sure that organizations come through crises with their resources and community relationships intact (*Vision*). Mary Margaret Schoenfeld, an independent arts consultant who worked as a research coordinator on the white paper, explained in an interview that survival for a performing arts organization is more than just a continued existence. It requires creating an emergency plan that allows for “organizational recovery, to a state where the organization serves the community according to their mission, and resilience such that they are better prepared for emergencies and disasters in the future” (Schoenfeld). A comprehensive emergency action plan is one that accounts for both readiness and resilience.

¹ Grantmakers for the Arts’ has made the full white paper available on its website: www.giarts.org/sites/default/files/A-Vision-For-Emergency-Readiness-Response-Recovery-in-the-Arts-Sector.pdf

Chapter I

INCREASED RISKS FROM CLIMATE CHANGE

The *Fourth National Climate Assessment*² was published in two volumes, one in 2017 and one in 2018, by the US Global Change Research Program (Arnold et al.). The program is led by the NOAA and consists of a team of more than three hundred scientists from thirteen different federal agencies. The assessment found that the severity and intensity of extreme weather events is increasing as the result of man-made climate change. Specifically, the report noted that the United States and its territories face increased risks from hurricane intensification, severe precipitation events, and an increase in both the intensity and frequency of wildfire events. These climate-change associated events are discussed in detail in this chapter, and while other natural disasters such as earthquakes and tornadoes have not been linked to climate change, it is worth noting that the benefits of planning will assist in the recovery of a performing arts organization in the aftermath of any disaster.

Arts administrators are able to develop better risk assessment and planning tools when they understand the science predicting where these disasters are likely to take place, and how severe they are likely to be. The Union of Concerned Scientists notes that “over

² The *Fourth National Climate Assessment* is the most up to date and comprehensive source for climate change impact in the United States. This paper cites multiple sources related to climate change, and many of these studies have been incorporated into the climate assessment report. Both Volumes I and II provide a more comprehensive look at the science than can be accommodated in this paper. Volume I is most relevant to the risk environment, while Volume II speaks more to mitigation and planning challenges. Volume I: science2017.globalchange.gov/
Volume II: nca2018.globalchange.gov/

the past decade, the scientific field known as ‘climate attribution’ has developed rapidly as scientists have been increasingly able to identify and quantify the part that human-driven climate change plays in increasing the frequency and intensity of many types of extreme weather events” (*Science*). Geographic location within the US and local infrastructure will influence the actual impact from a natural disaster, but the following gives a broad outline of the growing risks that are most likely to impact a performing arts organization.

Hurricane Intensification

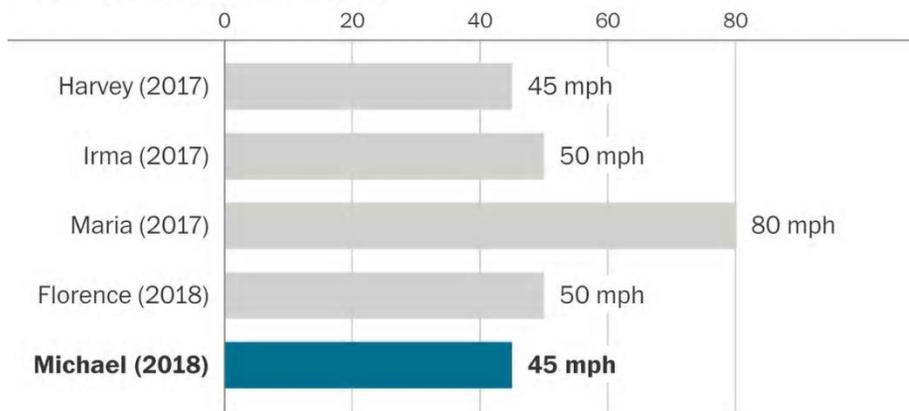
There were fifteen named storms during the 2018 Atlantic Ocean hurricane season, eight of which were hurricanes (“Destructive 2018 Atlantic”). Two of those, Hurricane Florence and Hurricane Michael, were classified as major hurricanes. Florence made landfall with record levels of precipitation that caused severe flooding in both North and South Carolina. Michael landed in Florida as a Category 4 storm with damaging winds that were some of the most powerful ever recorded in the continental US. The Geophysical Fluid Dynamics Laboratory, a subdivision of the NOAA that partners with Princeton University to conduct climate change studies, has concluded that “it is likely that greenhouse warming will cause hurricanes in the coming century to be more intense globally and have higher rainfall rates than present-day hurricanes” (“Global Warming”). These scientists predict that hurricanes will cause more flooding from storm surge as a result of higher sea levels, and that hurricanes will carry greater levels of moisture due to a warming atmosphere. They also expect hurricanes to intensify more quickly, to be more severe, and to develop into Level 4 and Level 5 hurricanes at a higher rate.

The National Hurricane Center defines rapid intensification as an increase in wind speeds of thirty-five miles per hour or more within a twenty-four-hour period (Mooney).

The five hurricanes that caused the most damage to the United States in the last two years all experienced rapid intensification (fig. 4).

That happened fast

One of the most distinctive – and ominous – features of recent hurricanes is just how rapidly they have strengthened, often leaping suddenly to Category 4 or 5 intensity. The chart shows the largest wind speed increase over a 24-hour period for the five worst Atlantic storms of 2017 and 2018.



Source: National Hurricane Center

THE WASHINGTON POST

Fig. 4 Hurricane Intensification 2017 – 2018 (Mooney)

Hurricane Maria is the most extreme example of hurricane intensification on record. It went from a Category 1 to a Category 5 storm in less than twenty-four hours and caused thousands of deaths and devastation on the island of Puerto Rico. In an interview with *The Washington Post*, climate scientist Gabriel Vecchi said “The rapid intensification of these storms, which was part of what made them so dangerous and devastating, is something models are telling us global warming should make more common globally over the present century” (Mooney). Vecchi’s 2018 study further

demonstrated that hurricane intensification is more likely to occur as a result of a warming of the atmosphere caused by greenhouse gases.³

Storm Surge

Hurricane Sandy⁴ made landfall in New Jersey in October of 2012 and also experienced a period of hurricane intensification. With gale force winds stretching over 870 miles in diameter, it was the largest hurricane ever recorded in the United States (Blake et al., *Sandy*). Sandy caused over fifty billion dollars in losses with damaging winds reaching as far west as the shores of Lake Michigan in Wisconsin and as far north as Maine. It created blizzards in the Appalachian Mountains and brought flooding as far inland as Albany and the Hudson Valley of New York, almost two hundred miles from where the storm made landfall. It is estimated that more than 650,000 homes were damaged or destroyed by the hurricane.

The worst of that damage was from flooding caused by storm surge. The NOAA defines storm surge as “the abnormal rise in seawater level during a storm, measured as the height of the water above the normal predicted astronomical tide” (“What is storm surge?”). The hurricane made landfall during high-tide and brought a sea level rise along the Atlantic coast that stretched from Florida to Maine. Table 1 gives examples of the inundation⁵ levels in various geographic areas. Note again that storm surge flooding

³ This study was published in the *Journal of Climate*, Vol. 31 Issue 20 in October of 2018.

⁴ A comprehensive report on the widespread effects of Hurricane Sandy from the NOAA is here: www.nhc.noaa.gov/data/tcr/AL182012_Sandy.pdf

⁵ Inundation is defined as the combined height of water above ground level when adding the effects of both storm surge and storm tide.

occurred through river inundation in the Hudson Valley, more than one hundred miles from the coastline.

Table 1

Storm Surge Sampling from Hurricane Sandy (Blake et al., *Sandy*)

Manhattan and Staten Island	4 – 9 ft.
Hudson River Valley – New York	3 – 5 ft.
New Jersey	2 – 9 ft.
Connecticut	3 – 6 ft.
Rhode Island	3 – 5 ft.
Maryland	2 – 4 ft.
Virginia	2 – 4 ft.

Many performing arts organizations experienced heavy losses as a result of Hurricane Sandy. Broadway theaters canceled four days of performances and the subsequent decline in attendance resulted in some shows closing early (Kennedy). The Broadway League estimated \$8.5 million in lost revenue and a reduction of almost one million attendees for the 2012 – 2013 theatrical season. The decrease in overall attendance is believed to be driven primarily by factors related to Hurricane Sandy. Tourism declined in the weeks immediately after and fewer local audience members attended as the regional population was focused on recovery.

In the nonprofit world, the Martha Graham Dance Company’s storage center in the West Village was flooded by waters from the Hudson River (Harss). Sets and costumes, some dating as far back as the 1940s, were underwater for several days. The

total in damages was \$4 million for a company with a \$5 million annual budget. The dance company was already under financial distress, and the hurricane losses forced it to suspend operations for two years.

Hurricane Sandy was considered a rare event, especially for the New York area. A flood assessment study found that nothing like it had occurred since roughly the 1700s and that the likelihood is that the storm was anywhere from a one-in-a-hundred-year event to a one-in-a-fifteen-hundred-year event (Orton et al). The researchers pointed out that this was based on historical data only and did not account for temperature changes in the ocean or atmosphere.

When adjusting for those changes, another study published in 2016 found that Hurricane Sandy type flooding events are likely to become more frequent throughout this century (Lin et al.). It showed the possibility of Sandy-like flooding occurring seventeen times a year by 2100 as a result of climate change. A 2011 study published similar results when looking specifically in the Gulf Coast region of Texas near Corpus Christi. (Mousavi et al). It predicts that large hurricanes will increase inundation levels by up to six feet over current levels by the 2080s. Finally, the United Nations Intergovernmental Panel on Climate Change issued a report in 2018 that found that once-in-a-hundred-year floods caused by storm surge and sea level rise are likely to quadruple by the end of the century in seven of the nine geographic sites examined (Hoegh-Guldberg). This is just a sampling of multiple reports suggesting that storm surge flooding will increase in frequency and severity over the next few decades as a result of climate change.

Performing arts organizations need to reassess their vulnerabilities to more frequent and severe flooding. Both the Martha Graham Dance Company in New York City and the

Alley Theater in Houston incurred millions of dollars in losses as the result of higher than expected levels of storm surge.

Severe Precipitation and Flash-Flooding

In addition to flooding from storm surge increases, hurricanes are expected to gather more moisture and arrive with higher levels of precipitation when they make landfall. Hurricane Florence exhibited behaviors similar to those seen during Hurricane Harvey when it hit the Carolina coast in September of 2018 (Halverson). The storm experienced a period of rapid intensification, which allowed it to gather additional moisture from the Atlantic Ocean. As it approached the shoreline, colder waters caused it to lose much of its wind power but none of its moisture. As a result, the storm stalled out and was the second largest precipitation event to hit the United States after Hurricane Harvey, pouring nine trillion gallons of water onto North Carolina.

Scientific studies have yet to find a definitive link between this stalling effect and climate change, but there is no question that tropical storms are slowing down. A study published in *Nature* in June of 2018 confirms that hurricanes have slowed down by ten percent globally when measuring the period from 1949-2016 and by sixteen percent in the Atlantic (Kossin). If tropical storms continue to slow down when they make landfall, flooding damage will become more severe. The slow speed prevents storms from dissipating and keeps them over land for greater periods of time, potentially causing flash flooding hundreds of miles inland from where the storm landed.

The Carteret Community Theatre in Morehead City, North Carolina, fell victim to this stalling effect during Hurricane Florence (Soult). The nonprofit's five-hundred-seat theater lost part of its roof during the storm and heavy precipitation caused much of the

remaining structure to collapse, flooding the auditorium. Devra Thomas, the business manager for the theater at the time, stated in an interview that she believed the theater would have to be rebuilt from its foundations due to all the water damage (Thomas). The organization did not have a comprehensive emergency plan in place, but they did take measures prior to the storm to protect data and move what they could out of danger. Thomas believes the community theater will be able to recover due to a strong financial reserve coupled with a deep community buy-in.

When Hurricane Katrina made landfall in New Orleans in 2005, numerous performing arts venues were submerged as a result of the storm surge, flooding rains, and broken levees. The Mahalia Jackson Performing Arts Center, a 2100 seat theater, sustained \$27 million in damage and was closed for three years (“Big Easy’s Historic Mahalia Jackson Theater”). The Saenger Theater, a historic movie palace and performing arts theater built in 1927, was significantly damaged; \$53 million was spent on repairs, and it took eight years to reopen (MacCash).

The damage to buildings along the Gulf Coast was extensive, but arts organizations also faced an exodus of staff and artists. The Mississippi Arts Commission did not have an emergency plan at the time and was forced to patch one together as they tried to help artists that lost homes and jobs. Louisiana’s Division of the Arts was a bit more prepared, but faced the challenge that 40% of the state’s cultural institutions and 40% of its artists were in New Orleans (Hargraves). It formed a roll-out plan for converting general operating funds into relief for the arts, but that plan was halted when all state funds were frozen. The money was tied up with political infighting for many months, forcing the arts agency to look elsewhere. South Arts, the regional arts agency

representing the area, took the lead in developing resources for arts recovery over the next year.

The danger from extreme precipitation is not limited to the coasts and these events are not always caused by tropical storms. The 2014 National Climate Assessment notes:

Heavy downpours are increasing nationally, especially over the last three to five decades. The heaviest rainfall events have become heavier and more frequent, and the amount of rain falling on the heaviest rain days has also increased. Since 1991, the amount of rain falling in very heavy precipitation events has been significantly above average. This increase has been greatest in the Northeast, Midwest, and upper Great Plains--more than 30% above the 1901-1960 average. There has also been an increase in flooding events in the Midwest and Northeast, where the largest increases in heavy rain amounts have occurred (Walsh and Wuebbles).

Because warmer air can hold more water vapor, this trend is projected to continue and to get more severe. Figure 5 shows the growth of heavy precipitation events in the United States from 1958-2012, defined as the heaviest one percent of all daily events.

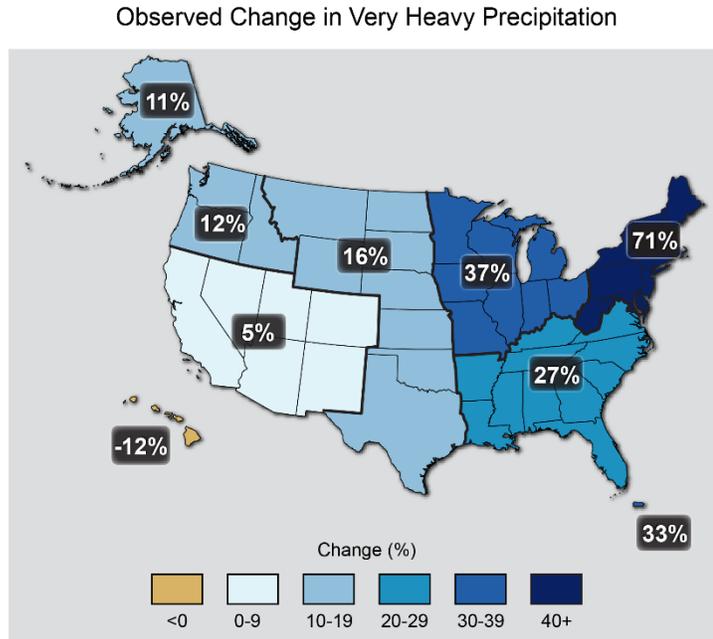


Fig. 5 (Walsh and Wuebbles)

The Center for Climate Change and Energy Solutions lists a sampling of some heavy precipitation events from the last decade:

In July 2016, more than six inches of rain fell in two hours in historic Ellicott City, Maryland, causing more than \$22 million in damages.

In September 2013, Boulder, Colorado, received almost a year’s worth of rainfall (17 inches) in four days. The resulting flooding destroyed homes, shut down thousands of oil and gas wells, and damaged crops.

In 2010, almost 20 inches of rain fell in the Nashville, Tennessee, area over three days. Losses in Nashville alone totaled over \$1 billion (“Extreme Precipitation”).

The Nashville event nearly put the city's hometown symphony out of business. The \$123 million Schermerhorn Symphony Center was completed by the Nashville Symphony in 2006 (Kozinn). The flood caused \$40 million in physical damages to the building, adding to financial troubles from the 2008 recession and exacerbating already existing donor fatigue. The executive director stated the Symphony was responsible for making up more than \$39 million of unrecovered losses over a period of several years when combining rebuilding costs and lost revenues. The organization was \$80 million in debt when Bank of America issued a foreclosure notice on the building in 2013. The Bank was successfully pressured by local politicians to give them more time, but it was six years after the flood before the Symphony was back on sound financial footing.

The Nashville flood was an extreme event covering a large part of the city, but events that are more localized can also cause significant damage. The Goodspeed Opera House in East Haddam, Connecticut, experienced a heavy precipitation event in September of 2018 when an unexpected rainstorm dropped eight inches of rain in just a few hours (McMahon). In an interview with Marketing and Communications Director Dan McMahon, he described the event and its aftermath. The downpour caused one of the roads near the organization's campus to collapse and divert the flow of water toward the costume shop. Water broke through the window and flooded the workshop space, a music library, a rehearsal studio, and ran through the building and out into the street where the theater's actor housing received additional damage. The theater did have an emergency plan in place, but it was mainly focused on the dangers from fire.

However, there were elements in the existing plan that allowed them to recover quickly. Similar to the Carteret Community Theatre, Goodspeed maintains a healthy

financial reserve (McMahon). The organization had prior experience with flooding, allowing it to quickly contact the contractors and adjustors needed. Additionally, the theater maintains an open text chain between its senior staff. This aspect of its operations allows it to respond quickly to any crises, large or small.

Wildfires

Scientists have been predicting since 1990 that climate change will make wildfires worse (Graham et al.). Forests are complex ecosystems and the interplay between a warming atmosphere, drought, shorter wet seasons, changing habitats, and human development all come into play when predicting the severity of wildfires. The Union of Concerned Scientists notes that wildfires have been nearly four times as likely to occur in the period from 1986-2003 and last five times as long when compared to a similar period from 1970-1986 (“Is Global Warming”).

The risk is particularly severe in the Western region of the United States. While heavy precipitation events have increased over time, summer precipitation has decreased and is causing a deeper drying of the soil and plants (Vose and Peterson). A prolonged drought that did not end until 2017 made the problem worse by enabling a bark beetle infestation to become extensive, resulting in the death of forty million trees across seven million acres of forest in the Sierra Nevada mountain range--an area that is larger in size than the state of Massachusetts. The warmer climate meant the beetles were able to reach higher elevations and spread more quickly than in the past. The dead trees are now contributing to the severity of fires in the region. The *Fourth National Climate Assessment* states these kinds of ecosystem changes will result in more frequent wildfires

in the Western United States, predicting the fires will occur two to six times more often by the end of this century.

The same report finds that the risk is not limited to the Western United States, noting increased dangers in most areas of the country. The Southeastern United States is also predicted to have a longer and more severe fire season. Over-development in fire prone areas and higher incidents of lightning-induced fires are already creating problems. A prolonged drought in this region could create conditions similar to those seen in the West. The report points to the summer of 2016, when wildfires in the Southern Appalachians burned over 100,000 acres in eight states. The city of Gatlinburg, Tennessee lost over 2,500 structures in just one fire.

The Luther Burbank Center for the Arts in Santa Rosa, California, was damaged by a wildfire in October of 2017. The Tubbs Fire struck Sonoma and Napa Counties in the heart of California wine country; driven by gale-force winds, the fire made a twelve-mile run from the rural town of Calistoga to a densely populated neighborhood in the city of Santa Rosa in just a few hours, burning an acre every minute (Johnson). By the time it was contained, the fire had burned more than 35,000 acres and destroyed more than 5,600 structures (Graff). The Luther Burbank Center lost 30,000 square feet of their 140,000 square-foot campus, including a four hundred-seat theater and a brand-new sculpture garden (Hart). Executive Director Richard Nowlin believes the full losses from damages won't be known for years due to complexities such as construction costs, insurance payouts, and operational recovery expenses. However, he did calculate the operating revenue lost from one month of closure at a quarter of a million dollars.

Marc Hagenlocher is the Director of Operations at the Luther Burbank Center. In an interview, he said they were generally very prepared for emergencies. The Center is located near one of the most dangerous fault lines in California and has detailed response plans for a major earthquake (Hagenlocher). It has a good relationship with the local fire department and quick access to emergency services. A fire of this size was not something the staff or local officials ever worried about. The campus is not in a wooded area and is surrounded by freeways on three sides, with a large parking lot serving as a natural firebreak. It was believed to be so safe that fire department dispatchers were sending evacuees to the Center's parking lot that night to wait out the fire.

Hagenlocher stressed that they were very lucky to have only lost a portion of their campus, citing a number of mitigating factors. The fire occurred as the organization was completing a roof remodeling project, which meant that fire-prone sight screens that cover up utilities on the roof had been removed and portions of the roof were power washed that day, removing all debris such as stray leaves and branches. The Center is also located next to a major hospital, with its own cistern, and the fire department was able to tap into that to help fight the fire at a time when many of the region's waterlines had failed. Because the fire broke out late at night, both the four hundred-seat and the sixteen hundred-seat auditoriums were empty. There was only a skeleton staff in the main building and firefighters had quick access to the campus due to low traffic in the area and a near-empty parking lot. Hagenlocher believes that any one small change in the situation might have resulted in a total loss of the building, and a potential bankruptcy for the organization. While the Center was insured at \$26 million, a complete replacement of the campus is estimated to cost anywhere from \$100 - \$200 million. The organization has

since raised its insurance coverage and revised its business continuity plans so procedures are in place for any future fires.

The Center was able to make a quick recovery and reopen just three weeks after the fire, months before their insurance adjustors thought it would be possible (Hagenlocher). Part of this was due to the preparation work they had done for a major earthquake and maintaining a healthy financial reserve, but a bigger piece is how well the center has integrated itself into the community over its forty-year history. Hagenlocher believes volunteers and staff rallied to reopen quickly because of the pride they take in the Center's mission. Donors offered assistance immediately for the same reason. Even though seven staff members, four board members, and ten volunteers from the Center lost their homes, they made it a priority to reopen so the Center could serve the community that had lost so much to the fire (Hart).

Climate Change and the Performing Arts

The last two years, 2017 and 2018, have seen a record number of major natural disasters in the United States and almost all of them were made worse by climate change. Over the next few decades, the number of performing arts organizations impacted by climate change is expected to rise significantly. Michael Mann is a notable climate scientist and director of the Earth System Science Center at Penn State University.

In a summary of some of the worst disasters of 2018, the *Huffington Post* quotes him as saying: “The impacts of climate change are no longer subtle. We’re seeing them play out, in real time, on our television screens and in our newspaper headlines.” He noted that the “record floods, heat waves, droughts and wildfires” as well as “superstorms” seen over the past couple years have “as an underlying cause, the effects of climate change” (Ruiz-Grossman).

This chapter has cited just a handful of incidents where performing arts organizations experienced losses as the result of a climate-change related weather event. Since Hurricane Katrina struck New Orleans nearly fifteen years ago, dozens of performing arts organizations have had to recover after a disaster. Some, such as the Nashville Symphony, were brought to the brink of bankruptcy before recovering. And a few--the Mahalia Jackson Performing Arts Center, the Saenger Theatre, and the Martha Graham Dance Company among them--did not meet this paper’s definition of survival and were closed for several years before opening again as restructured organizations.

On the other hand, elements of an emergency plan and strong recovery efforts have allowed many of these companies to survive. Even though it is a small sample, organizations such as the Carteret Community Theatre, Goodspeed Opera House, and the Luther Burbank Center for the Arts demonstrate that even a little preparedness can go a long way.

Chapter II INCREASED RISKS FROM TERRORISM

Violent extremism is growing in the United States. Testifying to the Senate Committee on Homeland Security in October of 2018, FBI director Christopher Wray stated the FBI currently has about one thousand active investigations into domestic terrorism (Myre). An analysis of data from the Global Terrorism Database shows that while global terrorism⁶ is generally declining, terror attacks are climbing in the US (“Global Terrorism Database”).

Wray went on to mention in his testimony that, in addition to threats from physical violence, the US faces a growing risk from cyberattacks and cyberterrorism. The World Economic Forum surveys “1,000 decision-makers from the public sector, private sector, academia, and civil society every year to assess the risks facing the world” (*Global Risks Report*). The results are then compiled into the annual Global Risk Report. Cyberattacks and electronic fraud were listed as the fourth and fifth highest risks to the

⁶ This paper uses the same criteria as the Global Terrorism Database for defining terrorism. Two of the following three criteria must be met to qualify as an act of terrorism:

1. The violent act was aimed at attaining a political, economic, religious, or social goal;
2. The violent act included evidence of an intention to coerce, intimidate, or convey some other message to a larger audience (or audiences) other than the immediate victims; and
3. The violent act was outside the precepts of International Humanitarian Law (“Global Terrorism Database”).

world economy, immediately behind the first three risks which are all related to the environment.

There were more than one hundred cyberattacks worldwide in 2018 that targeted government agencies, defense and high-tech companies, or resulted in losses over a million dollars (“Significant Cyber Incidents”). The Council of Economic Advisors for the White House estimates that malicious cyber activity in 2016 cost the US economy anywhere from \$57 billion to \$109 billion (Council of Economic Advisors). The same report notes that in 2015, 42% of all small businesses experienced either an adverse exposure breach or a targeted hack. However, an even bigger concern within the cybersecurity industry is that a cyberattack might cause critical infrastructure failures such as prolonged power outages or the failure of transportation networks.

For performing arts organizations, evaluating threats from terrorism is part of the risk management process and the results should be incorporated into an all-hazards plan⁷. This chapter will review the specific kinds of threats that performing arts organizations should plan for, cite similar attacks, and mention some resources for planning and prevention. Note that the growth of concern in these areas is driven by terrorism, but the motive behind an attack could be anything. Regardless, a comprehensive emergency plan can assist in the prevention and mitigation⁸ of an attack.

⁷ The Houston Arts Alliance recently launched a website to assist artists and arts administrators in planning. It defines an all-hazards plan simply as one that “lays out procedures for communication, preparedness, response, and recovery” in response to a risk management assessment (“Prep”).

⁸ “Mitigation refers to measures that reduce the chance of an emergency happening, or reduce the damaging effects of unavoidable emergencies” (“Four Phases”).

Threats from Violence

Active shooter incidents are the most common form of terror attack in the US.

The FBI defines an active shooter as one or more individuals “actively engaged in killing or attempting to kill people in a populated area” (“Active Shooter Incidents”). Between 2016 and 2017, there were fifty incidents in twenty-one states, resulting in 943 casualties with 221 killed. These casualty numbers exclude the shooters. This is an increase from the previous reporting period of 2014 – 2015 with forty incidents resulting in 231 casualties and ninety-two killed. As of this writing, the only recent attack on a performing arts event was the 2017 mass shooting at the Route 91 Harvest Festival. However, performing arts organizations that are producing a culturally specific event should note that attacks based on cultural identity or that target minorities are on the rise (Myre).

The Pulse nightclub in Orlando, Florida, was attacked by a mass shooter on June 12, 2016 (Raphael). While not a performing arts organization, the club shared many characteristics that may be found in a performing arts venue: minimum security, lots of people congregated in a small space, multiple possible points of entry, and in this case a cultural identity representing the LGBTQ community. The attack resulted in the deaths of forty-nine people, with an additional fifty-eight injured; the deadliest terror attack on US soil since September 11, 2001 (Straub et al.). The building the club was located in will never reopen and is being converted into a museum and memorial honoring the victims of the attack (Mark).

The Department of Homeland Security maintains training and planning materials on its website related to the preparation for and prevention of mass shootings (“Human Resources”). A list of resources available to arts administrators for planning can be found

in Appendix A. Some of the items covered are how to respond, how to train staff and volunteers, and how to create an emergency plan for an active shooter. David A. Yorio is a security expert and gave some specifics in an interview with Public Radio International about the Orlando Pulse nightclub shooting (Raphael). He believes that public venues should consider walk-through metal detectors at all entry points and be designed in such a way that the venue can be locked down in multiple locations to create chokepoints.

A study that reviewed the city's emergency response to the shooting also recommends that organizations, first responders, and community leaders integrate themselves into regional planning for mass casualty incidents (Straub et al.). It found that "collaboration, pre-existing relationships, and partnerships are a critical part of a successful, unified response to critical incidents." The National Endowment for the Arts concurred with that strategy in 2016 when it said that the arts and culture sector "benefits the community when it is connected to broader, community-based readiness, recovery, and resilience efforts" (*Readiness*).

Those lessons can also be applied to incidents where vehicles are used in ramming attacks. Vehicles are increasingly becoming the weapon of choice for many terrorists because they are readily available, require little skill to use, and can be utilized in a ramming attack with almost no preparation (Butterworth and Jenkins). While not as common as mass shootings, there have been seventy-eight documented terror attacks worldwide with vehicles from 1973 to April of 2018. The majority of those attacks took place after 2008; sixty-two total, with thirty taking place between January of 2017 and April of 2018. The rate at which a vehicle is being used as a method of terror is growing

substantially (fig. 6), with the number of fatalities per attack growing as well. Thirteen of these attacks have taken place in the United States.

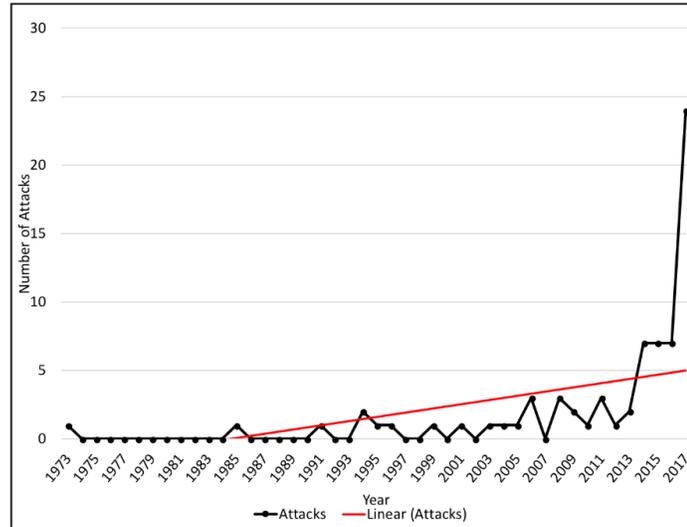


Fig. 6. Vehicle Rammings Over Time, 1973-2017 (Butterworth and Jenkins)

While not a terror attack, the Santa Monica Farmer’s Market crash that took place in July 2003 gives an indication of risks and liabilities performing arts organizations could face if they are hosting an event in a high-foot-traffic area. Eighty-six-year-old George Russell Waller drove his car into the crowd at an open-air farmer’s market at Santa Monica’s Third Street Promenade, crashing through wooden barriers and continuing for several blocks before coming to a stop (Groves and Winton). Ten people were killed and sixty-three injured. The city of Santa Monica was accused of providing inadequate security barriers and traffic management for the promenade, and paid out \$21 million to settle wrongful death lawsuits as a result of the accident. Performing arts

organizations can learn more about best practices in preventing vehicular rammings by visiting the Department of Homeland Security web page dedicated to this topic⁹.

The strategies used to prevent vehicular rammings can be adapted to mitigate truck or car bombings. The most famous truck bombing in the United States is the Oklahoma City bombing of 1995, when Timothy McVeigh detonated a 7,000-pound bomb in front of the Alfred P. Murrah Federal Building. The resulting explosion was the deadliest domestic terror attack in United States history, killing 168 people and injuring more than 600 (Herbeck and Michel). In 2010, a man built and tried to explode a truck bomb in Times Square (Baker and Rashbaum). When the truck started to smoke, police were able to surround it and defuse the device. It was a crude and unsuccessful attempt, but the targeted area is very dense with businesses and crowds, and adjacent to multiple Broadway theaters.

A large-scale terror attack may also have regional implications. The city of Austin experienced this recently when a serial bomber dropped off package bombs in various locations around the city over a period of three weeks in March of 2018 (Gutman et al.). Two people were killed and five injured as the result of six different detonations. Many people in Austin were afraid to leave their homes during the attacks, and local police were overwhelmed by suspicious package calls. If the attacks had grown in severity or continued for months, performing arts organizations could have experienced a serious drop in attendance, similar to the effects Hurricane Sandy had on New York City audiences.

⁹ Homeland Security Vehicle Ramming:
www.dhs.gov/sites/default/files/publications/Vehicle%20Ramming%20-%20Security%20Awareness%20for%20ST-CP.PDF

Whether preparing for a targeted attack or the repercussions of a regional one, the Federal Emergency Management Agency, also known as FEMA, maintains extensive documents on its *Ready Business* website related to preparedness¹⁰. Some of its recommendations related to terrorism are to assess vulnerability and mitigation when evaluating risks from bombs (“Step 1”), do simple things such as creating barriers to keep vehicles away from buildings, train staff in procedures for handling suspicious packages, and incorporate communication response strategies into all emergency plans.

Cyberterrorism and Cyberattacks

FEMA also provides recommendations for cybersecurity and recovery from a technology disaster. It is much more likely that a performing arts organization will be the victim of a cyberattack than a physical act of terrorism. Arts organizations, or third-party vendors they rely on, may find themselves the victims of a targeted attack or could be impacted by an attack that causes damage to an entire region. As previously mentioned, 42% of all small firms have been the victim of an adverse cyber event. The average cost to a small business is \$7,000, and for businesses whose banking accounts were hacked, the cost rises to \$32,000 (Council of Economic Advisors).

Many performing arts venues lost all box office functions when TicketFly was hacked in June of 2018 (Andrews). TicketFly is an event-ticketing company that is used by eighteen hundred venues in the US. The hacker that breached the system was able to steal the names, email, phone numbers, and addresses of over twenty-seven million users. Credit card data and passwords remained safe, but the company was forced to shut down its ticketing systems and go offline while it assessed the damage and tried to regain

¹⁰ FEMA *Ready Business*: www.ready.gov/business

control of their website. The hacker demanded a ransom to get the data back and when TicketFly refused to pay, its website was briefly taken over by the hacker. Five days passed before the company was able to restore service, forcing venues to go to manual or remote operations until the ticketing service came back online.

Similar ransom demands are being made on hospitals. A series of attacks in 2016 led to hospitals being locked out from their patient information (LaChance). In just one month, fourteen hospitals faced the hard choice of either paying a ransom or waiting for an IT solution to get access to their computers. In many cases the hospitals chose to pay rather than risking their patients' data. While hospitals are a high-profile target, many other businesses have faced the same choice. The FBI estimates that companies lost more than \$24 million in 2015 as a result of ransomware.

The nonprofit industry has a lot more work to do to protect itself when it comes to prevention and recovery from a cyberattack. The Nonprofit Technology Network surveyed more than two hundred and fifty nonprofits across the country and released its first State of Nonprofit Cybersecurity Report in November of 2018 (Hulshof-Schmidt). While there were a number of bright spots showing the industry is becoming more aware of cyber risks, there are also some areas of concern. Some of the key deficiencies:

- 38.8% of nonprofits lack a formal cybersecurity risk and data privacy policy.
- 68.2% have no documented policy for handling cyberattacks.
- 45.6% have no internal procedures in place on managing data with external agencies.
- 59.2% provide no cybersecurity training (Hulshof-Schmidt).

It is not just businesses and nonprofits at risk from cyberattacks. Entire municipalities have been affected as well. In March of 2018, the city of Atlanta was locked out of its municipal computer system for five days after it refused to pay a \$51,000 demand from a ransomware attack (Blinder and Perlroth). Most city functions had to be done by hand for several days, and some things could not be done at all. Perhaps less consequential, but possibly more frightening for residents, was a hack in 2017 in the city of Dallas that set off 156 tornado sirens at 11:42 PM on a Friday night (Simpson). The city was unable to turn them off until 1:17 AM.

Direct attacks by nation-states or terrorist groups on infrastructure are becoming increasingly possible (Greenberg). In December of 2016, hackers remotely shut down a transmission station north of Kiev in the Ukraine. Some parts of the capital city lost power for an hour, but an analysis of the malware that was used to make the attack shows that the software is adaptable and could be programmed to create mass power outages in the United States. Ted Koppel published a book on this subject in 2015 called *Lights Out*. Based on interviews with dozens of national security, intelligence, and energy officials, he concludes that it is not a matter of if a cyberattack will shut down a power grid, but a matter of when. A bipartisan confidential document that was sent by ten former government officials to the House Chairman on Energy and Commerce in 2010 states that “under current conditions, timely reconstitution of the grid following a carefully targeted attack if particular equipment is destroyed would be impossible; and according to government experts, would result in widespread outages for at least months to two years or more, depending on the nature of the attack” (Koppel 24).

It is likely at some point performing arts organizations in a region of the country will find themselves without power for two months or more, resulting in substantial lost revenue at a time when its audience and staff are facing hardships as well. A large-scale cyberattack that takes down parts of the power grid or other pieces of infrastructure could have cascading effects such as the failure of health and safety systems, or the failure of industrial controls that prevent the release of dangerous chemicals. An attack of that nature could also cause a period of economic recession (Knake). The report issued by the Council of Economic Advisors pointed to recent scenarios laid out by Lloyd's of London Insurance Company and the University of Cambridge's Centre for Risk Studies (Council of Economic Advisors). It found direct damages to the US economy could range from \$243 billion to \$1 trillion and that indirect damages may last for many years as economic confidence shrinks and the public has less faith in infrastructure.

That confidence in infrastructure could be shaken by a physical terror attack or a cyberattack. Both types have substantially grown in the last two years. Performing arts organizations need to evaluate the risks they face and incorporate them into their planning. When it comes to cybercrimes, surveys demonstrate the nonprofit sector is under-prepared and not doing enough to prevent attacks (Hulshof-Schmidt).

The next step is to look at the state of emergency planning in the performing arts and to evaluate if organizations are sufficiently resilient to withstand an attack. Many of the steps necessary to protect against regional harms from a terror attack mirror those that mitigate the damage from a natural disaster. The next chapter will explore the topic of preparedness in detail, providing a list of resources specifically available to performing arts organizations.

Chapter III

RESOURCES FOR PLANNERS AND THE EVOLUTION OF EMERGENCY PLANNING IN THE PERFORMING ARTS

A national push to establish more robust emergency planning in the performing arts began in 2005, in the wake of Hurricanes Katrina and Rita. After the devastation of the Gulf Coast, in addition to all of the damaged performance spaces and arts centers, Louisiana and Mississippi found their artists and arts organizations' staffs displaced throughout the region. The NEA sent staff to the region to assess the damage and to look for ways the agency could provide direct recovery assistance. Within six months, they had provided \$700,000 in grants to support arts organizations in the Gulf Coast region ("After").

A month after the hurricanes, the National Assembly of State Arts Agencies met for their annual convention in Boise, Idaho. It was there that the NEA started having conversations with arts professionals and advocates about creating more robust emergency planning in the sector ("After"). FEMA and the NEA had recently published *Before and After Disasters: Federal Funding for Cultural Institutions*. The guide provides information on where cultural organizations can apply for direct grants from the federal government for emergency planning and disaster recovery (*Before and After Disasters*).

The guide by itself was not enough. The consensus at the convention was that a lot more needed to be done in the nonprofit arts sector. In response to these concerns,

South Arts began a national initiative for preparedness in the arts, with encouragement and seed funding from the NEA (Schoenfeld). Early research by the founding task force on South Arts' initiative discovered the majority of organizations had either no readiness plans or insufficient plans ("About").

This chapter outlines the elements of a comprehensive emergency plan and traces the evolution of emergency planning in the arts in the wake of the hurricane season of 2005 through the end of 2018, noting resources available to administrators along the way. The conversation has evolved over the thirteen-year period as more threats such as climate change and terrorism have made the risk environment more urgent than ever before. With the changing landscape, resources have developed to meet the needs of performing arts organizations. As previously mentioned, Appendix A lists a summary of resources available to arts administrators for creating emergency plans and finding help after disaster.

Elements of a Comprehensive Emergency Plan

When South Arts surveyed arts organizations in its region in 2008, it found that sixty-eight percent had experienced a crisis at some point, but still did not have an emergency response plan in place (*Vision*). Two of the leading obstacles to planning were identified as not knowing where to begin and not knowing how to do it. While this paper does not purport to explain in detail how to create a plan, understanding the basic elements of a comprehensive emergency plan will assist administrators in getting started.

The first step in planning is to conduct a risk assessment. FEMA defines this as "a process to identify potential hazards and analyze what could happen if a hazard occurs" ("Ready: Risk Assessment"). This will include identifying risks from climate change and

terrorism, but should also include things such as fire safety, workplace injuries, crisis communications, and third-party vendor breakdowns. Assets that would be impacted by a hazard need to be noted, as well as potential losses that would occur should that asset be damaged. FEMA provides a risk assessment worksheet on their website that businesses can use as part of the process.¹¹

The risk assessment will inform the four phases of effective emergency management: mitigation, preparedness, response, and recovery (“Four Phases”). Mitigation refers to measures that reduce the chance of an emergency happening, or reduce the damaging effects of unavoidable emergencies. Any opportunities for the vulnerabilities identified in the risk assessment phase to be minimized should be implemented (“Ready: Risk Assessment”). Mitigation efforts a performing arts organization can implement might include creating security barriers, boosting insurance coverage, training staff and volunteers on best cybersecurity practices, pre-arranging alternate venues and contractors, creating remote box office capability, and backing up all data offsite.

It is strongly recommended that mitigation strategies be adopted during capital improvements as well (“Four Phases”). This can include things such as creating larger spillways for flooding, using fireproof materials, creating more space between a building and vehicle roadways, or installing additional security barriers. A 2017 study found that society saves six dollars for every federal dollar spent on mitigation and that

¹¹ www.fema.gov/media-library-data/1389015304392-877968832e918982635147890260624d/Business_RiskAssessmentTable_2014.pdf

organizations save four dollars for every dollar spent on mitigation when capital improvements exceed construction codes (Multihazard Mitigation Council).

The second phase is preparedness and the third phase response, both of which should be incorporated into an all-hazards plan (“Four Phases”). An all-hazards plan will detail how communications occur before, during, and after an event (“Prep”). It will also include emergency-specific preparedness plans, and detail how the organization will respond and recover from each specific event. The Houston Arts Alliance notes that an “all-hazards plan can be detailed or as simple as you choose to make it. The most important thing is that it is user friendly for your staff and volunteers.” Once a plan is put into place, the next step is training and upkeep. FEMA recommends training all employees on emergency plans (“Every Business”). Those plans should be practiced in drills and examined for vulnerabilities. Once a year, those plans should be reviewed and updated as necessary.

The last phase is recovery (“Four Phases”). Recovery planning will account not only for how a business will recover after a disaster, but will incorporate a business continuity plan (“Prep”). Recovery efforts will be identified in the mitigation phase, and the NEA stresses that arts and culture organizations need to involve themselves with regional recovery as well and integrate themselves into disaster planning with community leaders and emergency responders (*Readiness*) A business continuity plan will describe how the business will continue during the recovery phase, with a designated employee placed in charge while other parts of the organization focus on recovery (“Prep”).

The Alley Theater in Houston put their continuity plan into effect after Hurricane Harvey and was able to stage a quick recovery (Clareson). It had previous arrangements

with contractors to drain floodwaters and hired a specialized construction firm for disaster recovery. The Alley hired a specialist to help restore its massive prop collection, who in turn brought in the National Heritage Responders, a group of specialists that can “respond to arts and cultural organizations’ needs during emergencies and disasters” (Clareson). It had prearranged communication protocols for disasters in place with staff and with the Alley’s audience. The organization had successfully integrated itself with local disaster planning efforts, including that of the Houston Arts Alliance and the Texas Collections Emergency Response Efforts.

One of the items the Alley Theater specifically wanted to share with other arts and cultural institutions is that it also had a plan in place with the development department to raise funds for recovery and for business continuity (Clareson). The development department even set up funds for donors to provide direct support to staff members by the hurricane. In a show of solidarity, excess funds from the recovery efforts were shared with the Goodspeed Opera House a year later when it was impacted by the flood mentioned in Chapter I (McMahon). These are just some of the many actions the Alley Theater took that other performing arts organizations can learn from in their planning efforts.

Recent History of Planning in the Performing Arts Sector

In March of 2006, Americans for the Arts and the Craft Emergency Relief Fund¹² convened a meeting of arts leaders to discuss establishing a national strategy for assisting artists in the aftermath of future disasters (Hargraves). The convening was held as a

¹² The Craft Emergency Relief Fund, currently known as CERF+, was “started by artists for artists in the craft community as a grassroots mutual aid effort in 1985 and has since emerged as the leading nonprofit organization that uniquely focuses on safeguarding artists’ livelihoods” (“What We Do”).

follow-up to the conversations held the previous October at the National Assembly of State Arts Agencies convention and brought together a number of cultural leaders to share their own experiences in disaster recovery. Leaders from the Mississippi Arts Commission and the Louisiana Division of the Arts recapped their efforts after Hurricanes Katrina and Rita, as previously discussed in this paper. Lawrence Reger, the President of Heritage Preservation, described how his organization led the creation of a task force to assist museums, libraries, archives, and historic sites after a disaster and suggested a similar initiative be taken up for the arts.

John Kreidler, Executive Director of Cultural Initiatives Silicon Valley, talked about the lessons learned after the Loma Prieta Earthquake in Northern California in 1989. He noted that while there was a pre-existing Arts Loan Fund that stepped in to assist with recovery efforts, it took direct involvement from the National Endowment for the Arts to get things moving. He also pointed out that even if the money had been available, there needed to be a way to distribute information to artists and arts organizations on how to get assistance.

The most significant damage to an arts organization during the 1989 earthquake was to the American Conservatory Theatre. Just two hours before ushers were to open the doors for a performance, the earthquake caused the proscenium arch to collapse (“A.C.T.’s Historic Home”). The collapse ripped a hole in the ceiling and the debris and plaster crushed the first six rows of orchestra seating. Luckily, no one was injured, but the building would not reopen until 1996 after \$27.5 million in renovations.

The meeting closed with Americans for the Arts and South Arts pledging to create a task force dedicated to creating a nationwide strategy for emergency preparedness in

the arts (Hargraves). The goal would be to integrate information into existing networks of support and for the task force to act as a centralized communications hub connecting organizations with local arts agencies, state agencies, the federal government, and private funders.

That pledge led to the creation of three different national organizations dedicated to assisting the arts after a disaster. The first one formed was the National Coalition for Arts' Preparedness and Emergency Response, also known as NCAPER (*Vision*). Since 2006, it has taken the lead as a national taskforce to facilitate communication and foster relationships to connect aid to organizations after a disaster ("Facilitating"). The coalition's website provides links to resources and organizations, with updates on recovery efforts from the most recent disasters.

At the same time NCAPER was formed, South Arts was continuing its efforts to create a platform for preparedness. It partnered with the Andrew Mellon Foundation and worked with the Mississippi Arts Commission to create *ArtsReady*. Launched in 2009, *ArtsReady* provides resources and information for preparedness planning at arts organizations. Its website also offers a customized online tool to help organizations create an all-hazards plans that can be scaled up or down to match the needs for any category of event. *ArtsReady* cites the many benefits of planning, including: "to protect community and cultural assets, to demonstrate sustainability to investors, to show mitigated risk to insurance companies, and to be able to get up and running after a crisis" ("Why do Readiness?")

In 2017, the Performing Arts Readiness project was launched ("Project"). This is the next evolution from the work South Arts was doing, working collaboratively with

multiple performing arts groups, to bolster planning readiness in the performing arts sector. A planning committee for the project was formed in 2015 and found through a limited survey of members of the National Performance Network, otherwise known as NPN, that only 53% of the organizations that responded had a formal emergency plan (Clareson and Nyberg). Fewer than one third of the member organizations had a business continuity plan. The white paper¹³ the group published acknowledges “while no nationwide survey exists to benchmark emergency preparedness among all U.S. performing arts organizations, other recent local assessments provide similar context to the NPN surveys.” Performing Arts Readiness is attempting to address barriers to planning by providing outreach, advocacy, and direct grants covering a three-year period from 2017 – 2020.

All three of these groups remain active today providing resources and knowledge to performing arts organizations. NCAPER, *ArtsReady*, and Performing Arts Readiness are taking the lead in the national conversation surrounding planning. Each serves a unique role in the process, and any one of them is a good place for an administrator to start seeking knowledge of the emergency planning process.

¹³ The entire paper can be read at performingartsreadiness.org/wp-content/uploads/2017/04/PAR-White-Paper.pdf (Clareson and Nyberg).

Conclusion

Americans for the Arts reiterated the important role the arts play in our society in the wake of the disasters of 2017. “The arts are a vital component of the revitalization of disaster-affected communities. The arts illuminate the human condition, bring people together, and provide a crucial vehicle for healing” (“Statement”). In order for the performing arts to play a role in revitalization, the sector must achieve a greater state of resilience.

The state of readiness in the performing arts sector has advanced since Hurricane Katrina provided a wake-up call in 2005. There are more resources for planning than ever before. However, the number of organizations that have actually adopted a formalized plan seems to remain static. Surveys taken by South Arts in 2008, research by NCAPER in 2012, and surveys taken by Performing Arts Readiness in 2015 all indicate that too few performing arts organizations have comprehensive emergency plans in place. At the same time, climate change disasters and the risks from terrorism have accelerated.

There are some industry trends that demonstrate the message is getting through, and organizations that embrace emergency planning now will likely be at the forefront of what will become a standard requirement for any performing arts organization. For the first time ever, South Arts is requiring that a readiness plan be submitted with any grant application for the 2019 fiscal year cycle. The vision of integrating local art agencies into the planning process has been fully embraced by the New Jersey Arts Council and the Mississippi Arts Commission. Both are recognized as leaders in the field when it comes

to planning. The Houston Arts Alliance recently launched a resiliency website that helps break down planning into simple terms for those just getting started.

Conversations with individuals at organizations that have experienced emergencies yielded a set of common observations. Most performing arts organizations lack large enough financial reserves to cover substantial emergencies or prolonged shutdowns. Many are underinsured and need to consider the potential for near-total property losses from a climate-change related weather event. Organizations should consider purchasing insurance policies that cover losses related to terrorism or cyberattacks.

Performing arts organizations that already have emergency plans in place need to widen the scope of those plans for additional contingencies. The field needs to place a greater emphasis on continuity planning so that organizations that lose their facilities have a way to keep operating in the interim. This includes things such as remote box offices, offsite data storage, prearranged contractors for emergency events, telecommuting for staff and board members, and backup performance spaces.

There is an intangible, yet key element to recovery that every performing arts organization needs to consider, and that is community buy-in. Devra Thomas at the Carteret Community Theatre stated that there was an immediate outpouring of support from the community after Hurricane Florence damaged its building (Thomas). Marc Hagenlocher at the Luther Burbank Arts Center says the Center's nearly forty-year history in the region is why they were able to reopen their doors just three weeks after the Tubbs Fire (Hagenlocher). The staff and volunteers moved quickly and put in extra hours to get everything up and running, but more importantly, the community stepped up to do

the same. Buy-in speaks to resilience: when a community feels ownership, it steps up to help recovery take place and is essential to a quick recovery.

The aftermath of the Tubbs Fire provided a model of how the NCAPER vision, articulated in their white paper, could be put into action (*Vision*). Creative Sonoma, a program of the Sonoma County Economic Development Board, established a recovery fund for the region (Madsen). Together with the Hewlett Foundation, Arts Council Napa Valley, and the Arts Council of Mendocino County they were able to share resources and coordinate their response.

Arts organizations received funding for recovery and in turn provided healing opportunities to a community in need, bringing forth the final element of a comprehensive plan: the organization must serve a mission in recovery. The Luther Burbank Center opened its doors for community planning meetings and hosted a sold-out fire relief benefit for the region (Hagenlocher). Kristen Madsen, director of Creative Sonoma, describes some of the work being done in an interview with the Hewlett Foundation. Art museums are engaging community members in making art about the fires. Teaching artists are being placed in schools to help students who have experienced trauma. She goes on to say that there are "...countless free concerts, exhibitions of new work, readings, instrument drives, and performances that have already and continue to occur" (Madsen).

Sonoma County and its recovery from the Tubbs Fire can serve as a model for resilience in the age of climate change and terrorism, demonstrating the kind of activity that meets this paper's definition of survival. A region did not just endure after a disaster, the arts thrived by integrating themselves into the community.

The performing arts have participated in this kind of healing before. After Hurricane Katrina, the New Orleans Ballet Association organized free dance lessons for children. Executive Director Jenny Hamilton “recalls seeing a mother cry as she watched her child take lessons because it was the first time since the hurricane that the child had smiled” (“After”). In the wake of the Las Vegas shooting at the Route 91 Festival, country music stars organized a benefit concert in the city to raise money and to bring the community together. Many of the musicians visited victims in the local hospitals (Watts).

A month after Hurricane Harvey, all seven resident performing arts companies from the Theater District of Houston joined together to perform a benefit concert for the community. It was an evening of dance, opera, and theater all performed with a full symphony orchestra (Glenzer). Jazz pianist Jason Moran spoke to the audience from the stage, telling them “In this moment of rebuilding, we can count on artists to show us the way.” Against a backdrop of stars under the night sky, the concert demonstrated the power the performing arts have to heal, and to bring communities together.

Community-wide efforts are important, and both a local and national network for preparedness and response is necessary for the long-term health of the performing arts. However, none of that matters if an individual organization does not do the leg-work of preparing itself and integrating its efforts into that network. This is why adopting a comprehensive emergency action plan will better ensure the survival of a performing arts organization in the wake of a disaster caused by climate-change associated weather events or acts of terrorism.

APPENDIX A – RESOURCES FOR PLANNERS

Organization and Website	Brief Description
National Coalition for Arts Preparedness and Emergency Response www.ncaper.org/	Information, news, links to resources for emergency planning in the arts, links to resources for current declared emergencies.
Performing Arts Readiness performingartsreadiness.org	Information, news, links to resources for emergency planning and current declared emergencies, and grant applications for performing arts emergency planning.
ArtsReady www.artsready.org/	<p>“ArtsReady, an online emergency preparedness service by and for arts/cultural nonprofits, provides arts organizations with customized business continuity plans for post-crisis sustainability”</p> <p>News, free library of preparedness documents, and membership access to customized readiness plans.</p>
Houston Arts Alliance Disaster Resilience Website ready.haatx.com/	Simple, easy to understand explanation of necessary components of a comprehensive emergency plan with links to additional resources.
Federal Emergency Management Administration www.fema.gov/	The federal government’s website for emergency management. In-depth knowledge with assistance applications. Lots of free planning tools and charts.
Ready.gov www.ready.gov/business	Under FEMA, a much simpler design with easier to understand information for emergency planning for businesses.

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