Building CULTURES OF PREPAREDNESS

REPORT FOR THE EMERGENCY MANAGEMENT HIGHER EDUCATION COMMUNITY

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I. Executive Summary

The first goal of the Federal Emergency Management Agency's (FEMA's) 2018–2022 Strategic Plan is to *Build a Culture of Preparedness.* Preparedness strategies to date have increased first responder and government capabilities, but individual and community progress towards enhanced levels of preparedness has been limited. Achieving the 2018–2022 Strategic Plan's vision of enhanced preparedness requires a bottom-up approach to close these gaps.

This report highlights the vast diversity of American communities and households, indicating that a one-size-fits-all strategy is not well-suited to the specific demands of variable and distinctive environments – our Culture of Preparedness will have to be built one community at a time. Preparedness is a local matter, requiring solutions tailored to different cultural contexts and embraced by communities. Supporting the vision of a resilient nation in the Strategic Plan requires us to think in the plural, in terms of building ***"Culture(s) of Preparedness."***

Prior to the publication of this report, FEMA's Higher Education Program held a workshop focused on the implication of "culture" in FEMA's new strategic priority, sustainable preparedness choices, and why past efforts to build a Culture of Preparedness were not met with desired levels of success.

This report presents a culture-based approach to the preparedness goals laid out in the Strategic Plan. It lays out four Guiding Principles for building Cultures of Preparedness, followed by practical strategies and examples that demonstrate successful outcomes in real-world settings:

1. ***Trust*** **-** Develop trust by understanding the culture, context, and history of communities outside of disaster, as well as when an event occurs.
2. ***Inclusion*** **-** Bring the cultural perspectives of all stakeholders to the table.
3. ***Cross-cultural communication*** **-** Design communication efforts as cross-cultural encounters.
4. ***Support local practices and successes*** **-** Learn about the ways people are already prepared and enhance these efforts using culturally aware strategies.

To operationalize the four Guiding Principles that underlie this culture-based approach to preparedness, we recommend a novel methodology: the use of Culture Brokers. Culture Brokers for Disaster Preparedness are people with local knowledge and the trust of community members. They are capable of bridging gaps, are willing to help, and would be trained to use the four Guiding Principles to enhance local levels of preparedness. Recruiting these individuals can help outside organizations and local communities connect, build trust, and share knowledge. Such a methodology has been proven effective in educational, medical, and public health environments and holds great promise for helping FEMA and its state, local, tribal, and territorial (SLTT) partners achieve new preparedness targets among the Nation's diverse communities and hard to reach cultural groups.

Finally, the report notes that institutions of higher learning can make unique contributions to building Cultures of Preparedness. Their research and innovation capacity can help generate new approaches to enhanced preparedness, while social scientists well-versed in local histories, cultures, and culturally appropriate methods of community engagement can help emergency management professionals extend their reach and meet critical preparedness objectives.

II. Introduction

FEMA Higher Education Program Workshop on Building Cultures of Preparedness

FEMA's Higher Education Program organized a 2-day workshop from May 22–23, 2018, which brought together 39 disaster scholars and subject matter experts to share viewpoints about how the United States might achieve Strategic Goal 1: Building a Culture of Preparedness, a central component of FEMA's new Strategic Plan (2018–2022).

The Agency's vision for enhanced preparedness departs from past goals, which were mainly focused on response capabilities. The new preparedness vision focuses on lowering levels of risk and exposure throughout the Nation by making investments in mitigation and resilience.

While "Building a Culture of Preparedness" is still seen as a way to increase disaster readiness across all sectors, FEMA has expanded the operative concept to include understanding local and community risks, creating partnerships that build connection, and recognizing the diversity inherent in our communities.

This report and the workshop upon which it builds represent an effort to contribute to "Building Cultures of Preparedness" by facilitating collaboration and constructive dialogue among academic experts and scholars from diverse disciplines, FEMA officials and practitioners representing a wide range of specialties, all with a shared interest in preparedness and community resilience.

III. A Brief Overview Of Preparedness Efforts In The United States

Preparedness Policy and Governance Context

Experts have indicated that major disasters function as focusing events (Birkland, 1998; Birkland, 2008; Rubin, 2012) and reveal gaps in preparedness. These gaps serve as catalysts for change in emergency management policy and doctrine, institutions, and processes, and focus attention on the need to improve systematic readiness across all levels of government, as well as the private and nonprofit sectors. Major investments in strengthening national preparedness capabilities followed the Loma Prieta earthquake, September 11th, and Hurricane Katrina, for instance.

In 2011, FEMA increased these efforts under Presidential Policy Directive (PPD)-8 on National Preparedness, which defined preparedness as *"actions taken to plan, organize, equip, train, and exercise to build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from those threats that pose the greatest risk to the security of the Nation."* FEMA's "Whole Community Approach to Emergency Management" was introduced at the same time as PPD-8 and presented the Agency's vision for building an integrated, layered, all-of-Nation approach to preparedness (FEMA, 2011).

These efforts have worked well to enhance first responder preparedness and government capabilities, successes which are detailed annually in the National Preparedness Report:

- ***Interoperability:*** Communication systems connect different levels of government and critical non-governmental organizations (NGOs) during response efforts.
- ***Operational Coordination:*** The National Incident Management System (NIMS)/Incident Command System (ICS) are used by all states, tribes, territories, and local governments.
- ***Planning:*** Emergency Operations Plans, Threat and Hazard Identification and Risk Assessments (THIRAs), and Mitigation Plans are pervasive and are improved at each review and after every major event.
- ***Public Warning:*** Different media and technologies can reach the public before/during an event providing instructions and warnings to promote public safety.
- ***Exercise & Training:*** First responders have mastered most core capabilities for all hazards environments and train/exercise regularly.
- ***Equipment & Supplies:*** Preparedness grants have supported massive upgrades for first responders and communities exposed to risk.
- ***Education/Public Health:*** Emergency planning is pervasive in schools, universities, and health and medical facilities.
- ***Intelligence & Information-Sharing:*** National cross-organizational, inter-governmental network exists to ensure situational awareness and dissemination of critical information.
- ***Environmental Response/Search & Rescue:*** Capacities for hazmat, Chemical, Biological, Radiological, Nuclear, and Explosive Materials (CBRNE), natural hazard events enhanced (FEMA, 2012; FEMA, 2014; FEMA, 2017; Sury, et al., 2016).

In contrast, attempts to enhance levels of preparedness among individual households, communities, and various organizations which lie outside the emergency management profession's immediate sphere of control have shown little to no sign of improvement (FEMA, 2014; FEMA, 2017; Sury, et al., 2016). Preparedness campaigns such as Ready.gov, America's PrepareAthon, and National Preparedness Month, all aimed at individual households and communities, have not produced the desired results. In fact, FEMA's 2014 report, entitled *Personal Preparedness in America,* documented research insights gathered over the course of 8 years that show, "the percentage of surveyed individuals taking recommended preparedness actions remains largely unchanged since 2007." This report categorized the U.S. population according to the following Preparedness Profiles:

- 14% saw preparedness as a *Part of Life* and were more likely to have started preparing or have been prepared for an extended period of time.
- 21% were *Working on It* and have taken some preparedness actions but perceived low levels of risk.
- 18% said preparedness was *On Their Mind* and perceived themselves to be at high risk, but were unlikely to act on fear and take preparedness actions, and
- 46% said preparedness was *Not on Their Radar* (FEMA, 2014).

Research on the preparedness of individual households tells us that the dismal projections of personal preparedness recorded in survey after survey over the last two decades suggests probably even less preparedness than reported, as household surveys tend to produce a bias in respondents answering optimistically and not admitting shortcomings (Uscher-Pines, Chandra, Acosta, &

Kellerman, 2012). FEMA's own research on preparedness, such as the results from the 2009 Citizen Corps National Survey, have long shown that public outreach campaigns and education efforts were having no effect on preparedness levels (FEMA, 2012). These research findings have caused the organizations mounting these campaigns to reflect on the effectiveness of their messaging and question how individual preparedness should be measured (American Red Cross & FEMA, 2013). But despite an increasing accumulation of lessons learned and research demonstrating that key policy efforts aimed at individual preparedness have failed to provoke changes in preparedness behavior, virtually identical campaigns continue unabated.

FEMA's Strategic Goal to Build a Culture of Preparedness

FEMA's new administration has redoubled its commitment to address preparedness gaps in areas where progress has been stymied. In 2018, a new preparedness imperative was launched under FEMA Administrator Brock Long's Strategic Plan (2018–2022), which sets as its first goal "Building a Culture of Preparedness."

In elaborating its new vision for national preparedness, FEMA emphasizes *Shared Responsibility*. This concept seeks to make explicit the necessary distribution of responsibility among FEMA's SLTT partners, and in so doing, manages unfounded expectations about the Agency's own role[1]. *Shared Responsibility* is a mantra that reminds partners that disasters are meant to be state managed, locally executed, and federally supported. As stated in FEMA's Whole Community Approach (2011), "preparedness is a shared responsibility; it calls for the involvement of everyone — not just the government — in preparedness efforts. By working together, everyone can help keep the nation safe from harm and help keep it resilient when struck by hazards, such as natural disasters, acts of terrorism, and pandemics." In the Strategic Plan's new policy framework, the notion of preparedness as well as the role and function of all levels of government, non-governmental organizations (NGOs), private sector, individual households, and communities is reconceptualized with an expanded mandate that differs greatly from the charge laid out in the PPD-8's National Preparedness Goal:

> *Resilience is the backbone of emergency management. The Nation's ability to weather storms and disasters without experiencing loss significantly reduces our risk. The most successful way to achieve disaster resiliency is through preparedness, including mitigation. Building a Culture of Preparedness within our communities and our governments will support a National effort to be ready for the worst disasters – at the individual, family, community, state, local, tribal, territorial (SLTT), and Federal levels (FEMA, 2018).*

What does it mean to say that FEMA is shifting its definition of preparedness to include mitigation and resilience?

It means that preparedness functions are no longer focused solely on ensuring first responders are equipped, trained, exercised, and prepared to deal with future disasters. The new vision of preparedness requires an understanding of local and community risk. It requires a recognition of the diverse groups of people and the distinct needs of those communities. It requires creating

[1] The 2017 Hurricane Season revealed, once again, the recurrent public expectation that FEMA is a first responder, a role which for the most part, it assigns out to other agencies and actors.

partnerships across NGOs and non-profit groups as well as private businesses. In short, it requires building diverse "cultures" of preparedness, mitigation, and resilience. FEMA's new Strategic Plan indicates that this kind of expanded, holistic notion of preparedness will bring about the results that have eluded us. It will include a collective ability to react decisively and more effectively during a disaster, to reduce the loss of property, prevent deaths and injuries, and recover more quickly and fully (FEMA, 2018).

Lessons Learned from Past Attempts to Generate Preparedness

Preparedness experts state that what is needed is a bottom-up approach, and that past efforts to apply one-size-fits-all solutions have ended in failure (Edwards, 2009). Yet, research demonstrates that the demands on local social and governmental systems and budgets during routine, non-disaster periods exceed the ability of these systems to meet day-to-day social, economic, and existential needs in their communities, municipalities, rural towns, and urban centers. Moreover, past studies have also noted that the nature of the preparedness task is fraught with impossible expectations, an aggressive timeframe in which innumerable preparedness/ mitigation/resilience activities are expected to be accomplished, and the reality of resource scarcity at the local level (Drabek, 2018). Simply put, emergency preparedness is but one of many competing priorities in already taxed communities across the Nation. These realizations must cause us to pause and ask how, given these constraints, can we best achieve success?

In this report, the ambition of achieving a nationwide transformation in preparedness is realizable, but only if past methods that failed to produce desired results are left behind. We need new concepts, and tools, adequate incentives, and motivating strategies embraced by people living in communities at risk.

To meet the challenge, professionals in the field of emergency management must better understand the communities, peoples, and varied populations that they hope will become "better prepared." We must understand what constitutes a threat worthy of self-protective action from a local perspective, just as we must understand when people simply do not have the means to prepare. While the emergency management community focuses on the natural and human-made hazards that are the focus of their profession, individual citizens are often confronted with social and economic threats that they perceive and prioritize as their own greatest risks. These households are not at risk simply due to their exposure when disaster threatens; they live in a state of permanent emergency resulting from socio-economic conditions and marginality that make each day precarious. Disasters can be experienced as simply too unlikely, compared to the daily crises of compromised health and strained finances, to warrant investment of precious resources. "Populations are not vulnerable simply because they are exposed, but rather their plight is a result of marginality that makes their life a permanent emergency" (Cutter and Emrich, et al, 2006: 11). Thus, if these households cannot reasonably be asked to use their limited resources for emergency preparedness purposes, we must collectively work to generate new solutions to protect the most vulnerable among us.

As "how to build Cultures of Preparedness" becomes a central issue for the field of emergency management, it is vital to reflect on the social and psychological significance of this project, and how, in each individual community, this process involves grappling with deeply rooted cultural conceptions of risk, resilience, identity, and meaning. The question then becomes, how to create momentum around preparedness efforts at the level of individual households and communities to help them become more resilient.

A New Approach and Strategy for Success

In the following sections of this report, we present a viable alternative to past approaches, which will further FEMA's agenda. Recognizing the vast diversity of communities and individuals across this Nation, we suggest that the goal is not to build one monolithic, national Culture of Preparedness, but rather to encourage local engagement with preparedness projects that meet the needs and enhance the capacities of individual communities. The demands of distinctive and heterogeneous local environments mean that the Culture of Preparedness we desire will have to be built one community at a time. Locally specific solutions will have to be tailored to different cultural contexts by community members that understand their history and surroundings. Thus, an operational methodology that supports the vision of a resilient nation put forth in the Strategic Plan requires us to think in the plural, in terms of building ***"Culture(s) of Preparedness."***

IV. What Is Culture And How Is It Useful For Approaching Preparedness?

To understand how a culture-based framework is useful for approaching disaster preparedness, the foundations for FEMA's new Strategic Plan are important to consider:

> *The FEMA Strategic Plan advances and expands upon the first pillar of the President's National Security Strategy, "Protecting the American People, the Homeland, and the American Way of Life." Within this pillar is a focus on "Promoting American Resilience," which speaks to the Nation's ability to absorb the shock of a disaster and quickly recover. As the National Security Strategy notes,* ***"a democracy is only as resilient as its people," so as a diverse and united people, we must be prepared.***

These "first pillar" commitments embrace the diversity inherent in the many ways of life in the United States; the diversity of our livelihoods, our ethnic backgrounds, our religious practices, and ways of raising children are among other ways people organize their families and communities. All communities are included in this commitment. No one's socioeconomic status, age, ability, race, culture, gender, religion, or any other form of difference should prevent access to the same Federal, state, or local support in the face of disaster.

The great diversity of our Nation is quickly apparent in our coastal communities, which FEMA defines as one of its many focal geographic areas of concern for natural hazards.

- The Gulf of Mexico with five states in two FEMA regions[2] and large concentrations of African Americans, Whites, Cajuns, Vietnamese, Native Americans, and Latinos.[3]
- The Pacific Ocean – Five states in two FEMA Regions[4], including Alaska Native and Pacific Islander communities threatened with sea-level rise and erosion, and California's

[2] FEMA Regions IV & VI (Alabama, Florida, Mississippi, Louisiana, Texas).

[3] Klineberg, Stephen. (2017). The Kinder Houston Area Survey: Thirty-six years of Measuring Responses to a Changing America.

[4] FEMA Regions IX, X (California, Hawaii, Guam, Samoa, CNMI, Alaska, Oregon, Washington).

Asian, Latino, White, Native American, African American, and rural farming communities living with drought, wildfires, and the threat of earthquakes.
- The Atlantic Ocean –14 states in 4 FEMA regions[5], which include large, non-English speaking and culturally distinct, diverse urban populations (i.e., Puerto Rico, New York, New Jersey, etc.).

The very first steps for achieving an outcome of readiness and resilience involve understanding that preparedness looks different in different cultural contexts. Recognition and action to support such local diversity requires ground-up engagement that can identify local successes. In this way, we can honor the Strategic Plan goal by building many individual ***Cultures of Preparedness.***

Cultures of Preparedness

FEMA's goal of building a Culture of Preparedness acknowledges that many people and groups in the United States do not currently share a sense of urgency about preparedness. To arouse that sense of urgency, it is important to ensure that the benefits of preparedness are recognized and become a part of our collective American culture, across all regions, states, and communities. Achieving a cultural level of buy-in about preparedness suggests that preparing for a disaster would become the norm in American households and communities. In other words, preparedness would become integrated within the character of the Nation's values and behaviors generally. The commitment to preparedness would then be regarded as an assumption about how to live safely.

Most communities in the United States have a long way to go to achieve this new cultural norm. *So, how do we get communities across the country to embrace building* ***Cultures of Preparedness?***

In every community, we are likely to find more than one cultural group. For example, in the greater Houston "community," there are many distinct cultural groups. Houston was ranked the most racially and ethnically diverse large metropolitan area in the United States in 2017 (Klineberg, 2017). The area is home to people from diverse ethnic, racial, and religious backgrounds including African Americans, Latinos, Vietnamese-Americans, Chinese-Americans, Indian-Americans, Anglo Americans, among others. It is also home to people with diverse livelihoods, such as ranchers, farmers, and rural townspeople. So, **even if people share a geography, there are many invisible cultural values that can distinguish them.** Each community's perception of risk and way of coping with disaster is conditioned by its cultural identity and social history.

FEMA (2011) defines community as, "unified groups that share goals, values, or purposes rather than geographic boundaries or jurisdictions."[6] Scholars in the social and behavioral sciences add important insights to this notion of community. Most importantly, they demonstrate that local communities are not homogeneous; they may be home to any number of specific cultures, each with its own

> "To be prepared we must all understand our local and community risks, reflect the diversity of those we serve, and foster partnerships that allow us to connect with a diverse Nation"
> – FEMA Strategic Plan 2018, p.4

[5] FEMA Regions I, II, III & IV (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New York, New Jersey, Puerto Rico, Delaware, Maryland, Pennsylvania, Virginia, Florida, Georgia, North Carolina, South Carolina, U.S. Virgin Islands).

[6] Definition from the DHS (2011) National Mitigation Framework.

values and norms (Andrulis et al, 2007; Kruger et al, 2015; Ramsbotton et al, 2018). For this reason, the complexity and care required to nurture an ethic of preparedness within widely varying contexts will require a decentralized approach, one that recognizes the many *cultures* that need to be engaged in locally meaningful ways to achieve preparedness.

To help FEMA invest strategically in achieving its new preparedness goal, this report first takes a closer look at what culture is and why it matters before, during, and after a disaster.

What is Culture and Why Does It Matter?

A classic definition of culture is *"that complex whole which includes knowledge, beliefs, arts, morals, law, customs, and any other capabilities and habits acquired by [a human] as a member of society"* (Tylor, 1871). Every human group and human being is influenced by cultural factors that shape their decisions and viewpoints. None of us is born with culture, but we all grow up learning how to value certain ways of doing and seeing. We learn how to speak and be understood, how to distinguish good from bad, what foods give us comfort, what it takes to earn status, how to treat our elders, and whom to trust. Culture is *holistic* in the sense that different aspects of life are interconnected.

Source: Culture and Disaster Action Network (CADAN), 2017

For example, ways of understanding economic relationships, belief systems, family structure, child-rearing, nature, and even risk are not as separate as they seem; values and practices tend to interact and feed off each other.

One of the most important points about culture for the purpose of this report is the fact that cultural conditioning is often hidden from view. For most people, their own ways of doing and seeing and believing become second-nature, feel "natural," and become the standard for what we assume is "normal." This *naturalizing* quality of culture presents a special hazard for those who attempt to work or communicate across cultural groups because it is often hard to tell that communication is

not getting through. This is precisely why past preparedness efforts have not had the reach or penetration we need. If everyone wore buttons to identify their own cultural sensibilities—their set of beliefs, values, traditions, and ways of conducting everyday life—it would be much easier to reach out effectively.

Another way of recognizing the force of culture occurs when you leave the comfort zone of the social group you are a member of and move into uncharted new territory. Think about the last time you entered a social environment that was not familiar to you—how you felt about not grasping what everyone else seemed to understand without explanation. Culture is the social glue that creates a sense of belonging and reinforces certain values and ways of seeing and interacting with the world. This social glue holds people together and creates a sense of community; it makes us a part of a group. For people outside a cultural group, there are often "barriers to entry" that can result in frustration or misunderstanding. This is precisely why cultural differences need to be understood and engaged rather than dismissed as irrelevant in disaster contexts.

Engaging with local cultural groups can also reach people who never before imagined the government (at whatever level) cared about their safety and security. This approach would represent a transformative shift in preparedness work, one that would not only empower local people to design their own preparedness strategies but would also deliver results where success has eluded us.

Subject matter experts on preparedness have been calling for a bottom-up approach, precisely because past efforts to apply top-down or one-size-fits-all solutions have too often ended in disappointment (Edwards, 2009).

Culture in Disaster Contexts

Culture matters in the field of disaster work. What is risky, what is safe, what successful disaster response or recovery looks and feels like, what is considered rational, and what preparedness consists of are all shaped by the values and worldviews that people hold. The importance of understanding these worldviews is often neglected when compared with the emphasis that is put on the physical structure of levee systems, the measurable integrity of buildings, or the economic assets of a community. Yet cultural differences also infuse visible aspects of life: how we design and situate homes, how we perceive risk, why we choose to stay rather than evacuate. It is impossible to overstate the variety of ways that culture can affect how we prepare for and respond to disasters.

The following short Chinese Fable illustrates the value of understanding those different from us, especially in times of crisis:

How does Culture Matter in Disaster?

A monkey and a fish were caught in a terrible flood and were being swept downstream amidst torrents of water and debris. The monkey spied a branch from an overhanging tree and pulled himself to safety from the swirling water. Then, wanting to help his friend the fish, he reached into the water and pulled the fish from the water onto the branch.

The moral of the story is clear:

Good intentions are not enough. If you wish to help the fish, you must understand its nature.

(Marsella, Johnson, Watson & Gryczynski, 2008, p.3)

Knowledge gaps between members of different cultural groups that do not understand each other can cause great distress and suffering, and this can be especially serious when power relations are unbalanced. The point is that when outside authorities are responsive to the cultural context of a group's values, preparedness initiatives are likely to be successful because trust and respect are earned through knowledge and awareness. Moreover, research suggests that people are more resilient when their cultural needs and values are represented, respected, and supported (Browne, 2015; Marino, 2015; Maldonado and Lazrus, et al, 2016).

Preparedness that includes cultural knowledge enhances resilience for one important reason: **resilience is premised in large part on access to the strengths and familiarity that come from one's own cultural system.** Preparedness strategies that invest time and money in understanding the cultural strengths and needs of different groups will help reduce vulnerability and give people the best possible chance of strengthening their collective capacities.

This culture-based approach supports Whole Community well-being by enhancing effective preparedness. Attention to people's cultural patterns and needs can also build goodwill and trust between local groups and emergency managers at the Federal, state, local, tribal, and territorial levels. With better partnerships between emergency managers and local communities, the diverse ***Cultures of Preparedness*** that are built from the ground up may become good practice examples that could be scaled up regionally to contribute to a national Culture of Preparedness.

Such a culture-based methodology for building local preparedness offers a logical and robust interpretation of the basic principles outlined in FEMA's Whole Community Approach to emergency management:

- Understand and meet the actual needs of the Whole Community,
- Engage and empower all parts of the community, and
- Strengthen what works well in communities on a daily basis (FEMA, 2011).

Guiding Principles for Culturally Informed Preparedness Initiatives

To address the challenges of different contexts, we have identified four Guiding Principles that can help us achieve a more locally grounded, inclusive, and sustainable preparedness effort. We expand on the meaning and strategies related to each guiding principle in the pages that follow.

1. First is the importance of ***Trust*** for achieving change. Building trust requires deliberate relationship building with community representatives and a degree of relevant cultural knowledge. It may also require meeting communities and neighborhoods in their own spaces and using formats which people are accustomed to.

2. Second is the importance of ***Inclusion,*** bringing the cultural perspectives and experience of all stakeholders to the table. Inclusion means ensuring that the diversity of a community is represented. It also means that a variety of stakeholders are represented including emergency responders, businesses, NGOs, grassroots groups, and Federal, state, and local emergency management organizations.

3. Third is the importance of ***Cross-Cultural Communication*** to acknowledge how the different groups of stakeholders noted above carry their own cultural norms and act with their own culturally embedded assumptions. To communicate well with local communities, outside agencies and organizations that want to help need to recognize their own cultural and linguistic norms as well as those of local groups.

4. Fourth is the importance of ***Support for Local Practices and Successes*** that make use of the local knowledge and cultural traditions developed in the previous three Guiding Principles, so that existing capacities can be identified, enhanced, and supported. These practices should be inventoried so that they can potentially contribute to best practices.

Seeing disaster-affected communities through a cultural lens means recognizing that every aspect of preparedness and resilience planning and implementation—engineering, infrastructure, the economy, social services, communications, or training—reflects culturally specific values and lifestyles.

V. Strategies To Build Cultures Of Preparedness

Taking Action on the Guiding Principles: Strategies for Success

The four Guiding Principles are meant to help realize the transformative goals laid out in the Strategic Plan. Following the discussion of the four Guiding Principles below, we offer a concrete, operational strategy that can help us implement these interconnected and interdependent principles in real-world situations. Specifically, we recommend the use of a powerful, tested concept known as “Culture Brokers.” Culture Brokers are local residents or embedded community groups who are familiar with the cultural values, practices, and needs of a given group of people and, at the same time, understand how organizations and institutions outside the local community operate and communicate. By locating and recruiting such individuals to adopt the role of “Culture Brokers for Disaster Preparedness,” we could ensure that critical issues such as trust, inclusion, cross-cultural

communication, and support for local preparedness strategies are addressed. This methodological tool holds great promise in terms of helping us dramatically increase numbers of prepared citizens, communities, and hard to reach cultural groups.

We will return to the concept of Culture Brokers on page 23, in the section following the Guiding Principles.

Guiding Principle 1: Trust

The overwhelming importance of trust underlies all of the Guiding Principles and each of the proposed strategies to operationalize effective preparedness outcomes. Without trust from local residents in the system, trust in the institutions, the messengers, and the message, preparedness efforts will be ineffective, especially in those communities that are most difficult to reach and often most at risk.

Emergency and disaster managers are trained to know and identify risk as it exists in a geographical space; but recognizing cultural differences in any given area can pose a challenge. Even when identifying cultural differentiation is possible, and information could be disseminated among these groups, research shows that just giving people information (America's Prepare-a-thon flyers, directions to go to Ready.gov, alerts and warnings) is not enough to change their minds or preparedness behaviors.

When emergency managers cannot effectively communicate with communities due to cultural differences, or when communities disregard information given to them by emergency managers for lack of trust or connection, our preparedness and resilience goals suffer. In a post-disaster situation, the chance of harm also increases – sometimes dramatically, and is exacerbated by inadequate trust and connection between residents and outside agencies.

Existing research indicates that the neighborhoods which are most likely to experience acute risk and harm from disasters are often, if not always, the same neighborhoods that have high levels of distrust and communication breakdowns between disaster survivors and individuals tasked to help them prepare, reduce risk, or recover (Browne, 2013).

The question we are left with, therefore, is: how do we develop trust between official agencies and communities in systematic ways that can also be scaled up? Effective communication is critical to trust, but as we noted earlier, all four principles are interrelated.

First, trust building can be nurtured when disaster institutions invest in building relationships with communities and acknowledge the distinctiveness and unique needs of communities. We recommend using local individuals who can act as Culture Brokers to navigate across cultural divides.[7] For people to place their trust in an institution, it often takes a representative of that institution demonstrating awareness of the lives and needs of a given community he/she is trying to help or serve. Ongoing trust is further reinforced when

[7] Culture Brokers are discussed in greater detail on page 23 as a strategy for relationship building between communities and disaster institutions.

representatives of an institution show awareness of the larger social predicaments of the local group, beyond the context of a disaster.

Building Trust and Communicating across Cultures

To build community partnerships and enhance community resilience, NOAA's Pacific Services Center hired a Native Hawaiian traditional knowledge-holder as a cultural competency consultant to facilitate workshops and dialogues on disaster preparedness, among other topics. This led to holding meetings where officials are brought into community spaces, share food, and locals speak first, not the other way around. Space and time is provided for everyone to get to know each other. And they do not come together just once, but multiple times, and by the next time they meet, they are sharing stories about their children, asking about each other's parents, and getting down to work. As a result, more respectful and appropriate cross-cultural partnerships have developed between agencies and local communities, all of which increase disaster resilience.

In the example below, the non-profit Collaborating Agencies Responding to Disasters (CARD) accommodated the particular needs of the Lavendar Seniors of the East Bay during a disaster preparedness workshop. By listening to community members and matching their protocols to community needs and requirements, CARD won the trust of the population it was serving. The organization chose to ignore local government policy, which meant it lost vital grant funding, but with that move, it became a trusted partner to a community whose concerns were important and needed to be accommodated.

Best Practice: Lavender Seniors of the East Bay (LGBTQ Community)

The Lavender Seniors of the East Bay Community reached out to a renowned non-profit, Collaborating Agencies Responding to Disasters (CARD), that specialized in disaster preparedness and was launched in response to the 1989 Loma Prieta earthquake. The group scheduled a preparedness class, which would be provided at no cost through contract funding from the California Earthquake Authority (CEA). The contract required the recipient agency to collect contact information from class participants, as CEA wanted to survey them to see if they had taken action as a result of the training.

The training offered clear protocols that responded to the group's needs. For example, they outlined ideas for how people could respond to the higher levels of social isolation LGBTQ seniors face, how to deal with well-intentioned neighbors who might accidentally "out" people in post-disaster interviews, and guidance about the need for greater documentation and protection to ensure partners can maintain access to homes, resources, and other assets if an intimate life partner becomes injured, sick, or passes away as a result of a disaster.

However, when it came time to fill in the attendance sheet and provide contact information for the follow-up call, participants expressed extreme discomfort. Many senior and elderly members of this community simply do not trust government, neighbors, or those outside the LGBTQ culture enough to share those personal details publicly. Putting their names on a form, clearly identified as members of an LGBTQ group, was a threat for some–especially since they didn't know who would be looking at the list, how the list would be stored, what details could be made public, and if the

CEA would share this information with other government agencies or businesses. For attendees who were not "out" even with their own families, this was a major issue. As a result, CARD staff decided to skip the sign-in sheet and forfeit the contract funding that would have supported the efforts of their non-profit. CARD staff prioritized the trust and comfort of their participants and honored their commitment to making appropriate safety and preparedness services available to all communities.

Second, in order to recognize the substantial effort that must be made to create trust among some communities, trust building requires "investing in the long game." Developing trust in both the message and the institution may happen quickly; but in some cases, institutions and disaster managers are enmeshed in much longer histories of community/outsider engagement and historical trauma. Such trauma is not usually confined to the past. Instead, insult upon injuries that were never resolved can cascade into current-day problems and make relationship building extremely challenging for all involved.

Historical Trauma: Trust Issues that may be Hidden to Newcomers

Historical trauma can undermine expectations of trust in ways that are documented. We offer the example of Wales, Alaska. Wales is a small Indigenous community on the rural west coast of Alaska where approximately 53% of the population died during the 1918 Spanish influenza epidemic (Mamelund, Sattenspiel, and Dimka, 2013). The impact of that trauma, in this centennial anniversary, is staggering: 2 generations ago, more than 50% of everyone living in Wales died. Some of the authors of this report have conducted research in Wales, and, while there, spoke with a gentleman who believes the U.S. government spread the flu in order to make a land grab in Alaska. Whether or not it is true, what is indisputable is that over the last 100 years, rural, Indigenous, Alaska communities like this one have lost a great deal of land and have suffered terribly. No White outsider will escape the weight of that history; in point of fact, White outsiders are the face of that history.

Attending to the long game means being trustworthy and forthcoming with full awareness of the past. Treating local residents as allies and friends means *recognizing these efforts are a first step* toward the long road to developing trust. While race and being "local" are not necessarily linked, they can also be interconnected. These complex histories cut across race, socio-economic status, and other identity markers. They suggest that developing trust means hiring and including local people like the Culture Brokers we recommend.

Trust building is challenging. It may mean engaging and financially supporting communities outside of granting competitions; or supporting communities that are least likely to trust follow-up phone calls, as the case of the Lavender Seniors demonstrate. Trust building means meeting groups where they are, comprehending and responding to their local needs, often a challenging task within the bounds of institutional mandates. We also acknowledge, as our workshop participants noted, that emergency managers and practitioners are, in some cases, already making efforts of these kinds in the field. The question is how do we scale up their individual actions to make trust building an institutional priority? There will be many examples in the following pages that offer further suggestions for building trust. Here, we draw attention to thinking critically about how institutions can work towards creating trust in the message, in the institution, and developing an attitudinal posture that prepares us for the long game.

Guiding Principle 2: Inclusion

When focusing on inclusiveness, avoid unintended cultural assumptions about preparedness that may not be universal. For example, FEMA television commercials focusing on family emergency plans frequently feature individual households and nuclear family units as the center of preparedness. This works well for many families in the United States; however, diversifying these commercials to show single-headed households, extended families, and other cultural groups can reach more people such as those who identify with different family constellations.

Research indicates that just as it is necessary to provide risk communication in appropriate languages and dialects (SRA International, 2008; HHS, 2013), it is also necessary to have people of color, Indigenous people, and members of other diverse racial, ethnic, religious, gender, and economic groups model positive actions for those who relate to non-dominant cultural groups. These actions could include showing members of marginalized or specific cultural groups coming into a tornado shelter, planning an evacuation route, or preparing a home for a hurricane. Every scenario worth depicting should ensure that viewers can see themselves in the portraits. When we see ourselves reflected in positions of status or positive action, we are much more likely to feel motivated. Showing that Federal, state, and local governments recognize the ways different cultural groups practice everyday life, and by extension, might be likely to approach preparedness, is one cross-cultural communication strategy.

Inclusive Preparedness Respects our Elders

Ensure that communication is inclusive of all relevant stakeholders and follows the social protocols common in different places. In rural Alaska Native cultures, for example, hazard mitigation planning often requires elders in the community to be consulted in decision-making, as a traditional practice of respect and information gathering protocols (Marino 2015). Using a cross-cultural approach to mitigation efforts and communication pre-disaster should result in more successful outreach with a broader segment of the U.S. population.

Best Practice: Deaf Counseling Advocacy and Referral Agency (DCARA)

The Deaf Counseling Advocacy and Referral Agency (DCARA) of San Leandro, California, is a well-known agency serving the deaf and Hard-of-Hearing (HoH) community. This agency partnered with Collaborating Agencies Responding to Disasters (CARD) to help build preparedness and provide culturally appropriate trainings for its staff and community outreach workers. Typically, readiness trainings with deaf communities have offered conventional trainings with the "add-on" of American Sign Language interpreters. The actual content was neither tailored to the deaf community nor did it contain actionable specifics for deaf residents. Logistics were not aligned to the needs of deaf and HoH participants. This effort differed in that it offered culturally aware strategies by: 1) allowing more training time so that participants could engage in dynamic group conversations; 2) stopping and starting action so that people could reach agreement about how to sign unfamiliar emergency management terms; and 3) conducting classes in well-lit open circles to maximize the group's visibility to each other. Whistle and flashlight training included sharing why whistles were important for deaf people even if they couldn't hear them, why

flashlights are even more important to deaf residents as low-light situations make signing more difficult, why their emergency contacts should intentionally include hearing people who can sign, etc. This approach succeeded in galvanizing this key service provider to fully accept and value preparedness. In fact, the group applied for and shared an awarded $1.4 million preparedness grant.

Guiding Principle 3: Cross-Cultural Communication

Building and keeping trust and acting with an inclusion orientation require approaching communications with local communities as cross-cultural encounters. This is because everyone brings cultural sensibilities and assumptions to the table during these encounters, including FEMA and its state and local partners. It is useful to ask: *what are the most effective methods for talking about preparedness with different groups?*

Messages or communication strategies that emanate from disaster agencies must include cultural cues and validation as a way to build trust in the message itself. Speech, communication, and other linguistic choices are highly variable among different cultural groups. While we may all feel that our way of talking is "normal," all communities develop their own way of conveying meaning. Speech and linguistic choices in communication are likely to signal who is in our group and who is out of it, even though these choices may be unintentional.

In everyday communication, then, people everywhere actively affirm their multiple identities through the speech choices they make, consciously or not. Research suggests that if emergency managers design messages that correspond to the communication styles of an "in group," the chances of trusting the message and acting on the message go up (Marino et al., 2018). Thus, careful consideration of targeted messages is not a trivial concern. To be heard and acted upon, messages from institutions and managers should strive to sound like, and affirm, the identities of the diverse cultural groups they wish to reach.

When culturally and linguistically inappropriate preparedness materials and messages circulate, people respond poorly. A lack of cultural alignment in communication perpetuates gaps in preparedness. The example below shows the pitfalls that loom when communications do not address cultural differences.

Example: Cultural Considerations for Evacuation Communications

As the 2017–2018 hurricane season demonstrated, people do not always heed evacuation warnings and even mandatory evacuation orders. Research studies have identified several cultural factors that influence people's decisions about whether or not to comply with evacuation communications (Cutter & Smith, 2009; GOHSEP, 2009; Kiefer, Jenkins & Laska, 2009; Renne, 2011). These documented cultural problems include:

- Lack of trust in the warnings (this point reinforces the interdependence of the four guiding principles):
    - Lack of trust in all levels of government is common in groups that have endured historical disadvantages and inadequate attention to their safety and well-being.
    - Prior experience persuades some groups that government agencies do not engage in

two-way communication and do not hear the concerns of residents like them.
    - Prior experience where people did heed warnings and went to shelters, where they were made to feel unwelcome and racially inferior, their pets were not allowed, and they were left uninformed and unable to communicate with authorities.

- Linguistically and culturally inappropriate warnings:
    - The elderly, disabled, or critically ill persons who depend on a caretaker and equipment cannot readily leave when told. Caretakers may not leave if their patients/clients/charges are unable or unwilling to evacuate.
    - Warnings geared at vulnerable subpopulations (e.g., elderly) may not work if the people for whom it is intended do not self-identify as members of that group.
    - The majority of people evacuate in family units. Family ties and the desire for extended family to stay together, including pets, shapes evacuation decisions.
    - Non- or limited-English speakers cannot understand standard warnings.
    - Those with lower levels of literacy or the illiterate are commonly left behind.
    - New immigrants or undocumented immigrants may be fearful of deportation.
    - The homeless and other transient populations, or people living in poverty, may not receive messages that depend on access to smart technologies or the Internet.

Approaching preparedness communications as cross-cultural encounters can thus create awareness that can bridge cultural differences. Adopting a mindset of communicating with local communities in a way that assumes there are important cultural differences will aid government and emergency management efforts to integrate more effective preparedness norms into diverse cultures in the United States. A good example of a local community's communication plan can be seen in the following post-Katrina effort:

Broadmoor Improvement Association, New Orleans

The Broadmoor Improvement Association is a culturally diverse neighborhood association in New Orleans, Louisiana. While still engaged in recovery efforts after Katrina, its leadership began to work on neighborhood preparedness and executed a neighborhood survey that resulted in a list of 143 residents of the Broadmoor neighborhood that would need evacuation assistance. The BIA has formed a Broadmoor Community Emergency Response Team with 20 members that are CERT-trained, which maintains the list and contact households identified as needing evacuation assistance by phone. The team organizes rides for any of these residents and they track and record the evacuation plans of all special need households. They take a Whole Community Approach to preparedness. The BIA website also contains a Community Forum where they post risk event information and all residents can record themselves as safe and sound during an evacuation and post their location (evacuteer.org, 2011).

Successful cross-cultural communications involve several components. Tailoring messages to specific populations, communicating in different languages, and crafting quickly digestible visual messages are important first steps, but more can be done. Workshop participants contributed some further ideas, including the following:

- Use multicultural examples. Provide examples of diverse populations undertaking preparedness activities.

- Suggest multiple types of actions. Research and experienced practitioners have long insisted that an approach based on the fear of impending disaster is not motivating. Instead, provide examples of concrete actions that people in different circumstances (e.g., socioeconomic, health, household composition) can take to achieve preparedness goals.
- Develop multiple partners to reach and engage communities. Partner with local universities and community-based organizations, using participatory methods and community engagement (Institute of Medicine, 2008).
- Use multiple types of media. Use a combination of traditional and social media (e.g., websites, phone trees, Parent Teacher Association (PTA) newsletters, church bulletin boards, neighborhood listservs, Spanish television stations) to ensure messages reach every resident, especially the most vulnerable.
- Make conversations with community members multi-directional (so that listening and turn-taking is the norm). Workshop participants stressed that demonstrating that you are actively listening is a critical component of developing trust.

Guiding Principle 4: Support for Local Practices

Building awareness of local knowledge and practices can inform government preparedness activities. Many local practices of preparedness are not labeled as such by FEMA or other groups, but they have nonetheless been tested by adversity over time and thus should be considered as disaster preparedness strategies.

Preparedness strategies promoted by emergency managers should be guided by local environmental knowledge and local practices that have been refined over generations and have proven successful. Learning about what people are already doing about disaster preparedness serves many purposes: it signals interest in local people and their practices and thereby contributes to trust-building; it assures people that their own ideas, traditions, and initiatives are valuable and worth building upon; it offers a way to leverage existing strategies through enhancements rather than being expected to adopt top-down change; and it avoids unnecessary duplication. Learning local practices should be the starting point for Federal initiatives to enhance preparedness outcomes. In the example below, ranching traditions served to demonstrate an adaptive form of preparedness during 2017's Hurricane Harvey.

Local Preparedness Practice

Post-Harvey research in ranching communities outside Houston indicates that savvy ranchers practice moving their herds throughout the year. Cattle accustomed to moving some distance regularly to graze in different pastures are trained to move in the event of a tropical storm that appears headed for the Texas coast. In the event of sudden or unexpected flooding as occurred during Hurricane Harvey across many counties surrounding Houston, cattle can be moved to higher ground without undue stress or confusion. Such preparedness practices contribute significantly to the well-being and survival of valuable livestock and, by extension, to the well-being and survival of their owners (Browne, 2018).

Best Practice: Support for Local Practices

Many Indigenous peoples use cultural burning as a traditional land management strategy. However, cultural burning practices were suppressed by government policies. Today, fire is being brought back to the landscape through partnerships to implement tribal cultural burning practices and emergency management principles. For example, members of the Yurok Tribe in Northwest California formed the Cultural Fire Management Council (CFMC), in partnership with diverse organizational and agency partners including the Nature Conservancy Fire Learning Network, Firestorm Inc., Yurok Forestry/Wildland Fire, Northern California Indian Development Council, and the U.S. Forest Service to bring fire back to the landscape (Yurok Today, 2014). The effect of this traditional land management practice is ecosystem restoration and resilience, reduced amount of tinder in forests, and therefore reduced risk of wildfires (Middleton, 2012; Goode, 2013, 2014; Lake, 2016; Cozzetto et al., 2018). This longstanding cultural practice supports landscapes and communities to better prepare to endure threats of increasing wildfires. The scientific recognition of cultural burning as a preparedness strategy illustrates the value of learning about local practices so that enhancing these and building upon what is already proven to work becomes the goal.

Supporting local strategies might sound straightforward, but as described in Guiding Principle 1 concerning the complex nature of trust, there are often historical and current policy barriers and threats inhibiting local actions. Implemeting a cross-cultural collaboration strategy such as the Yurok example of working with many diverse partners to re-introduce cultural burning practices does not happen overnight. This success involved long-term, on-going relationship building to even begin the communication needed to work toward such an initiative.

Social scientific knowledge spanning decades of research points to a central insight about how to nurture effective practices of preparedness among groups throughout the country: communicate with people in ways that recognize who they are, support what people already do and know, and help people build on their strengths and approaches. People often know their own vulnerabilities and have thought about how to protect themselves from harm. They are also often open to local capacity building, enhanced flows of information, and bi-directional communication with trusted, credible people or entities. Culture Brokers can help serve as liaisons and translators between groups, as discussed below.

VI. Culture Brokers: Strategy For Building Cultures Of Preparedness

As we have mentioned in preceding pages, we recommend the adoption of Culture Brokers as a central operational strategy to fulfill the promise of the four Guiding Principles that underlie the requirements for building ***Cultures of Preparedness.***

Research has documented how Culture Brokers can serve profoundly important roles in increasing the confidence, trust, optimism, and resilience of residents in the aftermath of a disaster (Browne, 2015). In this report, we are proposing the need for identifying and working with Culture Brokers long before a disaster strikes.

When two or more groups of people do not come from the same cultural background, as we have elaborated extensively in this report, the risk of misunderstandings is high. These gaps in understanding can be costly. To respond to this common situation, institutions are recognizing the

value of locating people known as Culture Brokers to bridge cultural gaps. Culture Brokers help school teachers and administrators understand the cultural backgrounds and expectations of students, and vice versa. Hospitals and medical clinics also see the need for staff to work with patients of widely varying backgrounds. In response, they too are hiring Culture Brokers to help translate cultural values, practices, and communication patterns. In the public health arena, where Culture Brokers are trained and referred to as Community Health Workers, the Culture Broker concept has been producing successful public health outcomes in hard-to-access U.S. communities since the 1980s. Many implementations are in rural areas or federally designated Health Care Professional Shortage Areas, such as the Indian Health Services Community Health Representative Program established in 1968, the Alaska Community Health Aide Program serving in 170 villages, and numerous other programs in African American, Latino, and other communities where specific health problems have been a matter of great concern.

Who are Culture Brokers?

Culture Brokers are local residents and locally embedded community or civil society groups with a foot in two or more worlds. They have experience in working for or with groups beyond the local community they are part of. That experience positions them to help navigate the gaps between cultural groups on the ground and the organizations that want to help them prepare or recover. Culture Brokers know how to navigate distinct norms of communication because of their communications and experience with government agencies or institutions. This experience equips most such individuals with skills as cross-cultural communicators. Culture Brokers are people who realize how cultural differences and misunderstandings between insider and outsider groups can be overcome with awareness. For this reason, they can help organizations learn how to adapt their own cultural assumptions and understandings of preparedness to achieve better results with local groups. They can also help translate back to the community the messages and concerns of outside groups in a way that is meaningful to residents.

What Does a Culture Broker Do? Learning Who Lives Here

Who lives here?

When emergency response or disaster preparedness organizations arrive in unfamiliar communities, they need to quickly learn “who lives here.” To figure this out, it makes sense to consult someone known and trusted locally, someone who can share knowledge about local values and practices (CADAN, 2018). That someone might already be understood as an informal Culture Broker, an intermediary, or a go-between.

The challenge of ‘reading cultures’ cannot be underestimated

When there are different cultural groups in the same geographic space, it is critical to recruit or hire Culture Brokers who can translate the distinct needs of these groups. Communities with greater diversity need greater consideration and attention to understand the range of needs and perspectives before, during, and after disaster events. A community like Houston, that is large, complex, and highly diverse, is a good example.

The use of Culture Brokers is also particularly important when there are high levels of distrust, disproportionate degrees of power, or unfamiliar players involved (Maldonado and Lazrus, et al.,

2016). Culture Brokers can be key to reducing communication breakdowns and facilitating cross-cultural communication pathways.

VII. Organizational Cultures And Preparedness

Thus far in this report, we have been looking at the mosaic of cultures that together shape and form our communities and present a challenge in terms of national preparedness. As we have noted, these cultures must be respected and navigated carefully to improve individual and community preparedness if efforts by FEMA, state, and local emergency managers are to have the intended effects and a positive impact. But these cultures are not the only ones that have profound implications for the task of building Cultures of Preparedness. Organizations—public, private, and non-profit—are a key feature in any community landscape and figure prominently in efforts by FEMA and others to improve preparedness, response, and recovery from disasters. Outreach to and partnership with different organizations—including corporations, faith-based organizations, universities, and voluntary organizations—is critical to FEMA's preparedness efforts. Better understanding of organizational cultures can contribute to building Cultures of Preparedness across the Nation. This section explores the implications of organizational culture for improvements in preparedness and concludes with an example examining the ways in which universities and colleges—and their evolving organizational cultures—can help to build Cultures of Preparedness.

Organizational cultures are both similar and different to other forms of culture. Like other forms of culture, they exert a powerful and often hidden influence over the frames of reference, perceptions, incentives, values and behaviors of those who work, participate in, "belong" and comprise their "membership" (Garsten, 1994; Schein, 1996). Such cultural influences can promote or inhibit preparedness and engagement in disaster response and recovery efforts. Note that organizational cultures also affect the ability of organizations to *learn and change* in the wake of disasters—a key dimension of building Cultures of Preparedness as proposed by FEMA (Laporte and Consolini, 1991).

Organizational cultures are thought to have a major impact on organizational performance (and are often studied with an eye to identifying the cultural features of highly successful organizations so that others can emulate them). The literature also suggests that—though this is not easy—organizational cultures can be targeted for change in ways that have the potential to not only improve performance, but also improve the workplace environment—e.g., diversity and inclusion, preventing corruption and sexual harassment, reducing negativity and toxic environments, and maximizing positive impacts on the wider community or society (Kotter, 2007). For example, in recent decades efforts have been made (with varying degrees of success) from both outside and inside private sector organizations to promote cultures of *corporate social responsibility* (Schwartz and Carroll, 2003; Fleming, Roberts, and Garsten, 2013). In fact, the potential of corporations to contribute to preparedness, response, and recovery efforts—and their responsibility to do so—is widely recognized in policy, practice, and the literature (Johnson, Connolly, and Carter, 2010). Note that many other types of organizations (faith-based, sports, civic, advocacy) embrace preparedness and service during as well as after disasters—or have the potential to do so.

Organizational cultures vary widely across different types of organizations and within them. Many do not emphasize preparedness or organizational responsibility to contribute to disaster relief and recovery efforts at all. Those that do approach preparedness and disaster engagement in very

different ways. The American Red Cross, the Cajun Navy, and Team Rubicon are all non-governmental organizations. The Congressionally chartered American Red Cross puts an emphasis on formally, pre-trained volunteers, while Team Rubicon is a heavily operational organization with a paramilitary culture and membership largely comprised of veterans. The Cajun Navy is a volunteer rescue organization forged in the experience of the 2016 flood disasters in Louisiana. Similarly, Starbucks, Waffle House, and Walmart are very different kinds of business organizations, but all have been notable for their preparedness and civic engagement in response to Hurricanes Katrina, Sandy, Harvey, Irma, Maria, and Florence.

Organizations can contribute to preparedness and public safety in many ways. Examples include proactively closing (to ensure employee safety), making in-kind and financial contributions to relief efforts, adopting resilient approaches to business, and enabling continuity of operations even when critical infrastructures are disrupted. *Note that all of the types of organizations mentioned above and many more can encourage and support personal, family, workplace, and community preparedness as well as cultivating individual and collective responsibility to engage in community response and recovery efforts*.

Many of the strategies and good practices for engaging across cultures noted earlier in the report also apply to engaging with organizations and promoting positive, "adaptive" change. Adaptive cultural change is facilitated by focused dialogue and receptivity to knowledge, initiative, and innovation from all levels of the organization as well as from outside. Organizations that implement successful cultural change efforts are driven by "bottom up" as well as top down dynamics which facilitate creativity, understanding of the environment, "buy in" and motivation to implement and sustain change (Heifetz and Laurie, 2001).

Culturally Based Approach: FEMA and emergency managers at other levels of government should be aware of organizational culture differences and choose intermediaries and engagement strategies accordingly.

Mainstreaming: FEMA and emergency managers at other levels of government can reinforce the notion that a broad range of organizations have both the potential and the responsibility to contribute to preparedness.

Modelling: FEMA and emergency managers at other levels of government can help to identify and spotlight good practices with regard to organizational preparedness and organizational engagement in disaster relief and recovery—and encourage others to emulate them.

VIII. Higher Education Institutions As Sites And Engines Of Preparedness

Universities, colleges, and community colleges in the United States are both organizations and communities in their own right, with different missions, cultures, and demographics, and are relevant to efforts to build Cultures of Preparedness in distinct ways.

Campus resilience and Cultures of Preparedness: Higher education institutions are communities where students, faculty, faculty, staff, and visitors spend substantial amounts of time. Universities are both residential communities and non-residential places of work and education. Many

institutions have substantial undergraduate populations dependent upon the institution for basic needs and may rival or even dwarf the municipalities around them in terms of population, resources, physical facilities, and other capabilities. Developing campus resilience involves raising awareness among all segments of the community regarding potential risks and how to respond to them, e.g., lockdown and shelter-in-place procedures as well as evacuation routes from buildings and campuses. University leadership have unique and vital emergency and crisis leadership responsibilities (Brennan and Stern, 2017) and recognize that preparedness requires good partnership and active integration with surrounding municipalities and their first responders. DHS/FEMA promote university preparedness and help build organizational Cultures of Preparedness through activities such as the National Table Top Exercise (NTTX) program and regional exercises and training for higher education leadership, emergency managers, and campus Community Emergency Response Teams (CERTs). As a result of proactive efforts like these—and motivated in some cases by the experience of being insufficiently prepared for natural disasters, major accidents, or manmade tragedies such as mass shootings or terrorism—many universities and colleges are indeed more prepared than in the past.

Preparedness education: Educational institutions have a responsibility to contribute to public health and safety through their curricula, which is well established in primary and secondary education. However, this mission has only to a limited extent been carried over to higher education. One important development is the rise and professionalization of Emergency Management and related specialized undergraduate and graduate programs across the country. The FEMA Higher Education Program plays a vital role in building networks, spreading research results, supporting curriculum development, and promoting good practices in Emergency Management education. However, efforts like on-campus chapters of the International Association of Emergency Managers (IAEM) primarily target students and faculty specializing in the field.

Colleges and universities can not only reach and prepare students, but also provide preparedness refreshers to non-traditional students. Preparedness education could and should be *mainstreamed*—and thus made part of required core curricula in undergraduate education across the country. Such general education preparedness courses could be multi-disciplinary—combining humanistic with social and natural science approaches—and have both "theoretical" and practical elements such as household and workplace preparedness, first aid, etc. Moreover, if colleges and universities modeled readiness best practices in their physical environment and normalized basic preparedness and response language, all students, faculty, and their extended community would internalize preparedness and carry it forward in their lives and to others around them.

Direct assistance (on and off-campus) to disaster response and recovery: College and university communities can contribute in important ways not only to their own recovery when hit by disasters, but also to the surrounding community. During Hurricane Harvey, University of Houston students organized and made an important contribution to community disaster relief and recovery efforts. Similarly, faculty and student and staff volunteers were active both on and off campus in responding to and recovering from 2017's Hurricane Maria in Puerto Rico. The *University of Puerto Rico's* (*UPR) Se Levanta* (UPR on the rise) program engaged in many ways, including providing emergency aid to students whose studies (and financial aid flows) were interrupted by the Hurricane. Not only did members of the UPR community participate in clean-up and rebuilding efforts on campus, they supported parallel efforts in stricken communities near UPR campuses.

Following Hurricane Maria's disruption of higher education in Puerto Rico, universities and university systems in Florida and New York opened their doors to displaced Puerto Rican students (offering them in-state tuition rates and other forms of support) and hundreds of student volunteers travelled to Puerto Rico to help with cleanup and rebuilding.

IX. Policy Recommendations

Higher Education Institutions as Sources of Expertise and Engagement in Preparedness-Building Efforts: University and college-based experts should be supported with research grants and project partnerships focused on designing innovative approaches to preparedness challenges at the level of communities and individual households. Higher education institutions are well equipped to develop and disseminate actionable knowledge aimed at improving preparedness and creating breakthroughs in areas where progress has been stymied. Collaborative, field-based methodologies such as participatory action-research, community-led planning processes, needs assessment, and community mapping projects can facilitate partnerships between emergency managers, academia, and communities to solve challenges and fill gaps in preparedness. University-based experts are also well-positioned to support the development of "learning cultures" informed by systematic methods for documenting and evaluating experience as well as deriving and effectively implementing so called "lessons learned" (Stern, 1997; Birkland, 2009; Boin et al, 2017). We recommend increasing the level of interaction with researchers and focusing them on practical issues that will help achieve FEMA's new preparedness goals.

Encourage State/Local Grant Recipients to Invest in Innovative, Transformational Community Engagement Efforts: Encourage participation in efforts to build Cultures of Preparedness at the community and individual household levels. This could be accomplished by adjusting the current scoring system used to evaluate preparedness grant proposals (such as the Emergency Management Performance Grant - EMPG or State Homeland Security Program - SHSP), creating set asides for community engagement. This approach would award additional points for the establishment and inclusion of bottom-up, community-led preparedness projects and would enhance core capabilities and local levels of preparedness. To ensure success, performance measures and timeline deliverables would be required to award the additional points to be applied to the ranking. As proposals are ranked, additional points would provide an incentive for a state or local government to propose this sort of project. Funded awards under the grant program would allocate a set percentage for community engagement efforts to build a Culture of Preparedness and would be scalable based on the size of the grant award.

The Guiding Principles proposed in this report should become part of the performance measures and deliverable process for these set asides, ensuring that a portion of these Federal funds addresses the need to build trust, create inclusiveness, increase cross-cultural communication flows, and support local practices leading to increased levels of preparedness. Recipients would provide sub-grants to Civil Society Organizations (CSOs), local communities, and specific cultural groups that are hard to reach and under-prepared, investing in building Cultures of Preparedness that empower local capacity-building and resilience strategies.

Culture Brokers: We recommend a pilot project funded by FEMA Resilience to further develop and operationalize the Culture Broker concept, develop a methodology, compile a local cultural inventory, and train and deploy Culture Brokers in a strategic location with clear performance

goals and desired outcomes. The focus of this project would be to leverage the work that has already been done on this concept and break through the impasse that has existed in enhancing preparedness at the level of communities and individual households.

X. References

American Red Cross & FEMA (2013). Summary Report on Awareness to Action: A Workshop on Motivating the Public to Prepare. Washington, DC: A Joint Report of the American Red Cross and FEMA. Retrieved from: https://s3-us-gov-west-1.amazonaws.com/dam-production/uploads/20130726-1908-25045-9125/20130311_awareness_to_action_workshop_report_final_508.pdf

Bach, R. ed. (2015) *Strategies for Community Resilience: Multi-national Experiences*. Stockholm: Swedish Defense University. Retrieved from: https://www.preventionweb.net/publications/view/43699

Birkland, TA. (2007). Lessons of Disaster: Policy Change after Catastrophic Events. Georgetown University Press: Washington.

Birkland, TA. (1998). Focusing Events, Mobilization, and Agenda Setting. *Journal of Public Policy*, *18*(1), 53–74.

Boin, A. et al (2017). The Politics of Crisis Management: Public Leadership Under Pressure. New York: Cambridge University Press.

Brennan, J.A., & Stern, E. K. (2017). Leading a campus through crisis: The role of college and university presidents. *Journal of Education Advancement & Marketing*, *2*(2), 120–134.

Browne, Katherine E. (2018). "Decision-making methods as a window into risk perception and interdependencies." Paper presented at Natural Hazards Researchers Meeting. July 12, 2018. Boulder, CO.

Browne, Katherine E. Caela O'Connell, and Laura Yoder. (2018) "Journey through the Groan Zone with Academics and Practitioners: Conflict, Difference, and the Process of Bridging to Strengthen Disaster Risk and Recovery Work." *International Journal of Disaster Risk Science* (IJDRS). Published September 2018, 9(3): 421–428. Retrieved from: https://link.springer.com/article/10.1007/s13753-018-0180-y

Browne, Katherine E. (2015). Standing in the Need: Culture, Comfort, and Coming Home After Katrina. Austin: University of Texas Press.

Browne, Katherine E. (2013). "Standing in the Need: Communication Failures That Increased Suffering after Katrina." *Anthropology Now*. 5(1): 54–66.

Cozzetto, K., Maldonado, J., Fluharty, S., Hostler, J., & Cosby, C. (2018) *Yurok Tribe Climate Change Adaptation Plan for Water and Aquatic Resources*. Retrieved from: www.yuroktribe.org/departments/ytep/com_eco_reports.htm

Cutter, Susan L. & Smith, Mark M. (2009) Fleeing from the Hurricane's Wrath: Evacuation and the two Americas. *Environment: Science and Policy for Sustainable Development*, *51*(2), 26–36, DOI: 10.3200/ENVT.51.2.26–36

The White House. (2011, March 30). Presidential Policy Directive/PPD-8: National Preparedness. Retrieved from: https://www.dhs.gov/presidential-policy-directive-8-national-preparedness

Drabek, Thomas (2018). Community Processes: Coordination. In: Rodríguez, H., Trainor, J. & Donner, W. (Eds.) *Handbook of Disaster Research-2nd Edition* (p. 595-619). Cham, Switzerland: Springer International Publishing AG.

Edwards, C. (2009). *Resilient Nation*. London: Demos.

Eisenman, D., Glik, D., Gonzalez, L., Maranon R., Zhou, Q., Tseng, C. & Asch S. (2009). Improving Latino Disaster Preparedness Using Social Networks. *American Journal of Preventive Medicine, 37*(6): 512–517.

Eisenman, D., Glik, D., Maranon, R., Gonzalez, L., & Asch, S. (2009). Developing a Disaster Preparedness Campaign Targeting Low-Income Latino Immigrants: Focus Group Results from Project PREP. *Journal of Healthcare for the Poor and Underserved*, *20* (2): 330–345.

Evacuteer & UNO/LSU Gulf Coast Center for Evacuation Transportation and Resiliency (2011). Five Years Later: Emergency Preparedness Improvements in New Orleans, Louisiana since Hurricane Katrina. UNOTI Publications: Paper 11. Retrieved from: http://www.evaccenter.lsu.edu/pub/10-02.pdf

Fadiman, A. (2012). The spirit catches you and you fall down: A Hmong child, her American doctors, and the collision of two cultures. New York: Farrar, Straus, and Giroux.

Federal Emergency Management Agency (2018). FEMA 2018 – 2022 Strategic Plan. Washington, DC: Department of Homeland Security. Retrieved from: https://www.fema.gov/media-library-data/1533052524696-b5137201a4614ade5e0129ef01cbf661/strat_plan.pdf

Federal Emergency Management Agency (2017). 2017 National Preparedness Report. Washington, DC: Department of Homeland Security. Retrieved from: https://www.fema.gov/media-library-data/1503926640648-0b64216b808eb42a93ba96fe8888d113/2017NationalPreparednessReport_508_COMPLIANT.pdf

Federal Emergency Management Agency (2012). 2011 Central States Disaster and Earthquake Preparedness Survey Report. Washington, DC: Department of Homeland Security. Retrieved from: https://www.fema.gov/media-library/assets/documents/28886

Federal Emergency Management Agency (2012). Personal Preparedness in America: Findings from the 2009 Citizen Corps National Survey. Washington, DC: Department of Homeland Security. Retrieved from: https://www.fema.gov/media-library/assets/documents/29972

Federal Emergency Management Agency (2014). Personal Preparedness in America: Research Insights to Increase Individual, Organizational, and Community Action. Washington DC: Department of Homeland Security. Retrieved from: https://www.fema.gov/media-library-data/1409000888026-1e8abc820153a6c8cde24ce42c16e857/20140825_Preparedness_in_America_August_2014_Update_508.pdf

Federal Emergency Management Agency (2011). Whole Community Approach to Emergency Management: Principles, Themes and Pathways for Action. Washington, DC: Department of Homeland Security. Retrieved from: https://www.fema.gov/media-library/assets/documents/23781

Fire Learning Network [FLN]. (2014). Yurok Prescribed Fire Training Exchange. Weitchpec, CA, May/June 2014.

Garsten, C. (1994). Apple World: Core and Periphery in a Transnational Organizational Culture: A Study of Apple Computer Inc. Coronet Books.

Gillespie, D.F. & Colignon, R.A. (1993). Structural Change in Disaster Preparedness Networks. *International Journal of Mass Emergencies and Disasters*, *11*, 143–162.

Gillespie, D.F., Colignon, R.A., Benerjee, M.M., Murty, S.A. & Rogge, M. (1993). Partnerships for Community Preparedness. Boulder, C): Institute of Behavioral Science, University of Colorado.

Gillespie, D.F. & Streeter, C.L. (1987). Conceptualizing and measuring disaster preparedness. *International Journal of Mass Emergencies and Disasters*, *5*, 155–176.

Goode, R. W. (2013). Burning Down to the Village. Retrieved from: http://www.water.ca.gov/waterplan/docs/tac/Burning%20Down%20to%20the%20Village.pdf

Goode, R. W. (2014). Cultural Burn. Retrieved from: http://www.water.ca.gov/waterplan/docs/tac/Cultural%20Burn%20(4).pdf

Governor's Office of Homeland Security (2009). Louisiana After Action Review and Improvement Plan: Hurricanes Gustav & Ike. Baton Rouge: State of Louisiana. Retrieved from: http://gohsep.la.gov/Portals/0/Documents/Prepare/Gustav_Ike_aar.pdf

Heifetz, R. A., & Laurie, D. L. (2001). The work of leadership. *Harvard Business Review*, *79*(11).

Institute of Medicine (2008). *Research Priorities in Emergency Preparedness and Response for Public Health Systems: A Letter Report*. Washington, DC: The National Academies Press. https://doi.org/10.17226/12136

Johnson, B. R., Connolly, E., & Carter, T. S. (2011). Corporate social responsibility: The role of fortune 100 companies in domestic and international natural disasters. *Corporate Social Responsibility and Environmental Management*, *18*(6), 352–369.

Keating, D. & Karklis, L. (2016, Nov. 25). The increasingly diverse United States of America. *Washington Post.* Retrieved from: https://www.washingtonpost.com/graphics/national/how-diverse-is-america/

Kiefer, John; Jenkins, Pamela; & Laska, Shirley. (2009). "City-Assisted Evacuation Plan Participant Survey Report" *CHART Publications.* Paper 2. Retrieved from: https://scholarworks.uno.edu/chart_pubs/2

Klineberg, Stephen. (2017). The Kinder Houston Area Survey: Thirty-six Years of Measuring Responses to a Changing America. Retrieved from: https://kinder.rice.edu/sites/g/files/bxs1676/f/documents/2017%20Kinder%20Houston%20Area%20Survey%20FINAL.pdf

Kotter, J. P. (2007). Leading change. *Harvard business review*, *85*(1), 96–103.

Lake, F. 2016. Historical and Cultural Fires, Tribal Management and Research Issue in Northern California: Trails, Fires and Tribulations. Stanford University. Retrieved from: http://arcade.stanford.edu/occasion/historical-and-cultural-fires-tribal-management-and-research-issue-northern-california#_ftn67

LaPorte, T. R., & Consolini, P. M. (1991). Working in practice but not in theory: theoretical challenges of "high-reliability organizations'. *Journal of Public Administration Research and Theory: J-PART*, *1*(1), 19–48.

Maldonado, J.K., Lazrus, H., Gough, R., Bennett, S.K., Chief, K., Dhillon, C., Kruger, L., Morisette, J., Petrovic, S., & Whyte, K. 2016. The Story of Rising Voices: Facilitating Collaboration between Indigenous and Western Ways of Knowing. In Responses to Disasters and Climate Change: Understanding Vulnerability and Fostering Resilience. M. Companion and M. Chaiken, eds. Boca Raton, FL: CRC Press.

Mamelund, S. E., Sattenspiel, L., & Dimka, J. (2013). Influenza-associated mortality during the 1918–1919 influenza pandemic in Alaska and Labrador: a comparison. *Social Science History*, *37*(2), 177–229.

Marino, E., Wolsko, C., Keys, S., & Wilcox, H. (2018). Addressing the cultural challenges of firearm restriction in suicide prevention: a test of public health messaging to protect those at risk. *Archives of suicide research*, *22*(3), 394–404.

Marino, E. (2015). Fierce climate, sacred ground: an ethnography of climate change in Shishmaref, Alaska. University of Alaska Press.

Marino, E. (2018). Adaptation privilege and Voluntary Buyouts: Perspectives on ethnocentrism in sea level rise relocation and retreat policies in the US. Global Environmental Change, 49, 10–13.

Marsella, Johnson, Watson & Gryczynski (2008). Essential Concepts and Foundations. In: Ethnocultural Perspectives on Disaster and Trauma. New York: Springer. Retrieved from: https://www.researchgate.net/publication/226369082_Essential_Concepts_and_Foundations

Martinich, J., Neumann, J., Ludwig, L., & Jantarasami, L. (2013). Risks of sea level rise to disadvantaged communities in the United States. *Mitigation and Adaptation Strategies for Global Change*, *18*(2), 169–85.

Middleton, Beth Rose (May 2012) "Fuels: Greenville Rancheria," *Smoke Signals* (Bureau of Indian Affairs, Branch of Wildland Fire Management) Vol. 24: pp. 7–9.

HHS Office of Minority Health (OMH) (2013). National Standards for Culturally and Linguistically Appropriate Services (CLAS) in Health and Health Care. Washington, DC: Department of Health and Human Service (HHS). Retrieved from: https://www.thinkculturalhealth.hhs.gov/pdfs/CLASCompendium.pdf#7

Renne, J. (2011). Evacuation Planning for Vulnerable Populations: Lessons from the New Orleans City Assisted Evacuation Plan. In Liu, A., Anglin, R., Mizelle, R., & Plyer, A. (Eds.), Resilience and Opportunity: Lessons from the U.S. Gulf Coast after Katrina and Rita (pp. 120–130). Brookings Institution Press. Retrieved from: http://www.jstor.org/stable/10.7864/j.ctt127x5f.11

Rubin, Claire (Ed.) (2012). Emergency Management: The American Experience 1900–2010. Boca Raton: CRC Press.

Schein, E. H. (1996). Leadership and organizational culture. *The leader of the future*, *11*, 116.

Schwartz, M. S., & Carroll, A. B. (2008). Integrating and unifying competing and complementary frameworks: The search for a common core in the business and society field. *Business & Society*, *47*(2), 148–186.

SRA International, Inc. (2008). Cultural Competency in Disaster Response: A Review of Current Concepts, Policies, and Practices. Report prepared for the Office of Minority Health. Rockville, MD: SRA International, Inc.

Stern, E. (1997). Crisis and learning: A conceptual balance sheet. *Journal of contingencies and crisis management*, *5*(2), 69–86.

Sury, J., Chandler, T., Herrera, C., Bhaskar, S., Sehnert, E., Martinez, S., Marx, S., & Redlener, I. (2016). The American Preparedness Project: Where the U.S. Public Stands in 2015. National Center for Disaster Preparedness at Columbia University's Earth Institute: Research Brief 2016_2. http://dx.doi.org/10.7916/D84Q7TZN

TREX 2017. Prescribed fire training exchanges and cooperative burning. February. Retrieved from: https://www.conservationgateway.org/ConservationPractices/FireLandscapes/FireLearningNetwork/Documents/PERFACT-Feb2017-TREX.pdf

Uscher-Pines, L., Chandra, A., Acosta, J., & Kellerman, A. (2012). Citizen Preparedness for Disasters: Are Current Assumptions Valid? *Disaster Medicine Public Health Preparedness*, *6*(2), 170–173.

Yurok Today. 2014. Fire council ignites long-term burn plan: Yurok fire crew trains to conduct cultural burns on tribal lands. June, pp.

Appendix A: Workshop Participants

Wendy Walsh, Program Manager for the Higher Education Program & Executive Academy, Emergency Management Institute, Federal Emergency Management Agency, convened a 2-day workshop on May 22–23, 2018, which was hosted at Georgetown University's School of Continuing Studies in Washington, DC.

Two Co-Chairs, a 5-person core leadership team, a Graphic Facilitator and Visual Harvesting Team, and a select group of 20 academic and practitioner experts attended the workshop and contributed to the visioning process for this document. Collectively, their expertise represented the following government agencies, disciplines, and sectors:

Workshop Participants:

- Matthew Benke, FEMA
- Goulda Downer, Howard University
- Kay Goss, affiliations
- Kathleen Kiernan, Kiernan Group Holdings
- Heather Kirkland, American University, Bill Anderson Fund Fellow
- Fred Krimgold, Virginia Tech University/World Bank
- Matthew Lyttle, FEMA
- Amelia Mendizabel, NVOAD
- Pooya Rezai, FEMA
- Samantha Penta, University of Albany-SUNY
- David Reidmiller, U.S. Global Change Research Program
- Claire Rubin, Claire B. Rubin & Associates
- Darryl Sink, U.S. Department of State
- Amber Silver, University of Albany-SUNY
- Natascha Udu-Gama, American Geophysical Union
- Margeau Valteau, DHS External Affairs/Tribal Affairs Specialist
- Nickea Bradley, District of Columbia Emergency Management Agency
- Joseph Barbera, The George Washington University
- Annah Alcasa, District of Columbia Emergency Management Agency
- Rachel Novak, Department of the Interior, Bureau of Indian Affairs

Co-Chairs:

- Katherine E. Browne, Colorado State University, Department. of Anthropology/Culture and Disaster Action Network (CADAN)
- Laura Olson, Georgetown University, Emergency & Disaster Management Program/Culture and Disaster Action Network (CADAN)

Core Leadership Team:

- Ana-Marie Jones, Interpro Inc.
- Julie Maldonado, Livelihoods Knowledge Exchange Network (LiKEN)/Culture and Disaster Action Network (CADAN)
- Elizabeth Marino, Oregon State University, Department of Anthropology/Culture and

Disaster Action Network (CADAN)
- Keely Maxwell, Environmental Protection Agency/Culture and Disaster Action Network (CADAN)
- Eric Stern, University of Albany-SUNY, College of Emergency Preparedness, Homeland Security, and Cyber-Security

Graphic Facilitator and Visual Harvesting Team Coordinator:
- Jenny Hegland, Jenny Hegland Consulting

Two Georgetown University students enrolled in the Emergency and Disaster Management Master's Program provided note-taking assistance, and a team of AmeriCorps/FEMA Corps youth supported the Visual Harvesting Team.

Members of the Core Leadership Team and Co-Chairs worked together to author the first draft of the report, which was edited by the Co-Chairs and then circulated to the remainder of the committee. The report was sent to various reviewers and presented for feedback via webinar, and then went through an additional set of revisions and sent to the entire Core Leadership Team for review and feedback before publication.

Approach

Members of the core team of authors[8] generated this collaborative report through contributions that corresponded with each person's expertise. The co-chairs then generated and edited a full draft of the report, returning it to the core team for feedback, editing, and to ensure consensus on the final product. To present the highlights of the report, the team scheduled a webinar on September 20, 2018, to coincide with National Preparedness Month. The presentation offered the emergency management research, education, and practice community a chance to offer feedback on the content of the report. Suggestions were incorporated into the final report, with the co- chairs leading a final round of revisions. The full draft was delivered to FEMA's Higher Education Program Manager on October 22, 2018. The completed report was reviewed by FEMA internally and then one final time by the authors. The final report will be disseminated widely to potential stakeholders and users, including emergency managers at Federal, state, local and tribal institutions, communities/municipalities hoping to achieve and understand ambitious new preparedness goals; researchers; students; educators; practitioners; funders; and other interested parties.

[8] See page 2 for a full list of the members of the core team that collaborated on the report, workshop, and webinar.

Appendix B: Workshop Agenda

FEMA Focused Workshop: Cultures of Preparedness
22–23 May 2018
Georgetown University, Washington, DC

Agenda DAY 1

Tuesday morning, 22 May: Context building

8:30–8:35 a.m. **Welcome –** Joshua Meredith, J.D., Asst. Dean, Analytics, Technology and Security MPS Programs, Georgetown University School of Continuing Studies

8:35–8:45 a.m. **Purpose of focused workshop—**Wendy Walsh, Higher Education Program Manager, FEMA National Training & Education Division/National Training & Education System

8:45–9:15 a.m. **Self-introductions of "Core Team" Co-Chairs, Members, Visual Harvesting Team, and Invited Attendees**

9:15–10:00 a.m**. Exercise 1: Identify what we think is most important about preparedness—**

a. based on your own personal experience and/or observed reality
b. based on research and/or knowledge of institution/profession/occupation/community

10:00–10:10 a.m. **Short Break**

10:10–11:30 a.m**. Exercise 2: Mapping what we know**

a. Identify themes from Exercise 1a and 1b
b. Where do these ideas about 'what we know' come from?
c. Are there "pivot points" that shifted your view?

11:30 a.m.–12:40 p.m. Lunch *(**Short lunch on your own.** Please keep an eye on the time so you can be back and ready to start at 12:45 p.m. We hope you will reach out to those you don't know, exchange contact info, and talk about fresh insights.)*

DAY 1: Tuesday afternoon, 22 May: Culture in the Context of Preparedness

12:45–1:00 p.m. **Reflections on any pivot point insights**

1:00–3:00 p.m. **Exercise 3: How might local communities and cultural differences be relevant to consider in advancing the interests of preparedness?**

a. What examples can you think of that suggest how local conditions, beliefs, values, and practices inhibit or create barriers to mitigation, preparedness, or resilience?

(small groups 1, 2, 3)

b. What examples can you offer that demonstrate how a group has "enhanced" its capacity or "built" a new cultural norm—in general and/or in the context of preparedness? (small groups 4, 5, 6)
c. How do the goals and "cultures" of outside agencies and organizations match up with community goals and how do the correspondences or gaps in these goals and cultures factor into "building a Culture of Preparedness?" (small groups 1, 2, 3)
d. What are the limitations of a Culture of Preparedness–even if you have 100% preparedness culture, why might you still be negatively affected by a disaster? (small groups 4, 5, 6)

3:00–3:15 p.m. **Break**

3:15–4:00 p.m. **Exercise 4: POPCORN REVIEW: what we know about preparedness and what we know about variability of local knowledge, cultures, and practices**

4:00–4:45 p.m. **Exercise 5: How can we increase the probabilities of success in preparedness?**

a. Identification of successes and challenges
b. Inventory successes

4:45–5:00 p.m. **Wrap-up and homework for Day 2**

a. Read the new FEMA Strategic Plan about Building a Culture of Preparedness. Come ready to discuss how findings of Day 1 can be integrated into this strategic plan. What are the challenges and gaps? What are potential pathways to address these challenges?

DAY 2

Wednesday morning, 23 May: Culture and Preparedness in the Context of the new FEMA Strategic Plan

8:30–9:30 a.m. **Exercise 6: Discuss opportunities of new strategic plan in accordance with yesterday's findings**

a. What opportunities exist that connect our findings to key parts of FEMA's new strategic goal for building a Culture of Preparedness?
b. Where are the gaps?

9:30–10:30 a.m. **Exercise 7: Identify challenges of new strategic plan in accordance with yesterday's findings?**

a. Based on yesterday's findings, what concerns or challenges exist in making the strategic plan operational?

10:30–10:40 a.m. **Short Break**

10:40–11:30 a.m. **Exercise 8: What solutions might be possible to bridge the gaps between the new strategic plan and our findings about knowledge and preparedness?**

11:30 a.m.–12:00 p.m. **Wrap-up, next steps, and closing remarks**

12:00 p.m. **Adjourn full group workshop**

1:00–5:00 p.m. **Hot wash with core team**

5:00 p.m. **Adjourn core team meeting**

Resources:

Federal Emergency Management Agency (2018). FEMA 2018–2022 Strategic Plan. Washington, DC: Department of Homeland Security. Retrieved from: https://www.fema.gov/media-library-data/1533052524696-b5137201a4614ade5e0129ef01cbf661/strat_plan.pdf

Federal Emergency Management Agency (2017). 2017 National Preparedness Report. Washington, DC: Department of Homeland Security. Retrieved from: https://www.fema.gov/media-library-data/1503926640648-0b64216b808eb42a93ba96fe8888d113/2017NationalPreparednessReport_508_COMPLIANT.pdf

The White House. (2011, March 30). Presidential Policy Directive/PPD-8: National Preparedness. Retrieved from: https://www.dhs.gov/presidential-policy-directive-8-national-preparedness

Appendix C: Harvest of Ideas and Graphic Facilitation

(Alternative text description of text within the image on the next page: Participants engaged in focused large and small group discussions throughout the two-day workshop, giving space for everyone's voice to be heard and important themes to be identified. The workshop was supported by a harvesting team whose goal was to capture participant contributions and shared learning in both creative and useful ways. This collective meaning was recorded graphically, as well as through traditional notes, photography, and poetry. The use of imagery and other creative recording methods graphically, as well as through traditional notes, photography, and poetry. The use of imagery and other creative recording methods allowed for meaning to be made visible in real time, as well as provided a means to archive and therefore build on the insights and collaborative process in the future.)

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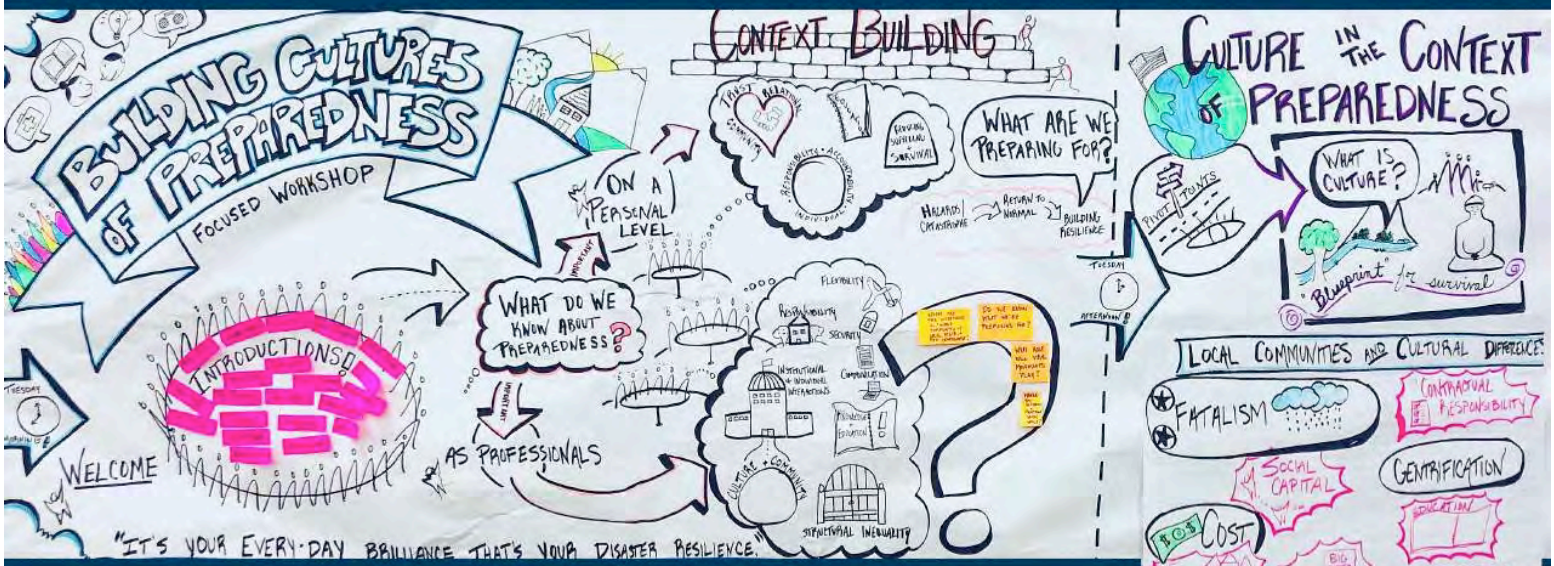

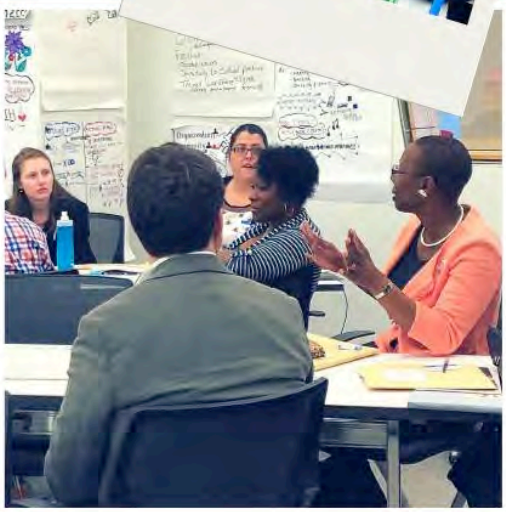

Appendix C: Harvest of Ideas and Graphic Facilitation