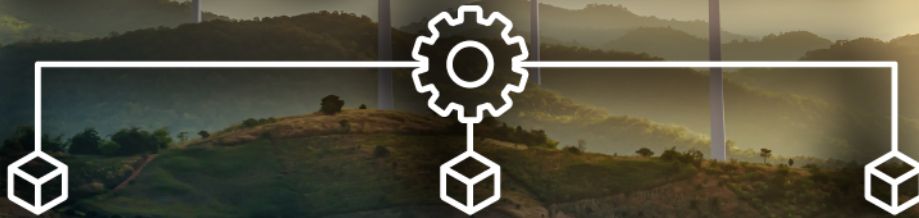


**20
50**

Strategic Foresight Initiative



Strategic Foresight

Final Report

November 2024



FEMA

Table of Contents

Preface	1
Executive Summary.....	2
Introduction.....	4
Theme 1: A future of pervasive disaster risk will require a whole-of-society approach to building resilient communities that do not merely endure shocks, but leverage them for long term gain.	8
Theme 2: A future of increasingly complex hazards will necessitate flexible, integrative, and preemptive emergency management built on expansive and persistent partnerships.....	14
Theme 3: In a future of unprecedented advancement, we must use technology to solve the right problems while guarding against unintended consequences.....	20
Theme 4: A future of growing demands on emergency management will require a creative transformation of the composition, recruitment, and retention of our workforce.	26
Theme 5: A future of social fragmentation will demand new approaches to cultivating community, trust, and self-sufficiency that enable response, recovery, and resilience.	32
Conclusion.....	37

Preface

I am proud to share FEMA's Strategic Foresight 2050 report – a rigorous and imaginative assessment of the challenges and opportunities we will face in the next quarter-century.

The work of emergency management is changing fast. Traditional disasters are growing increasingly frequent, while intensifying geopolitical tensions and emerging technology create new opportunities and vulnerabilities to our Nation's safety and security. More than ever, emergency managers are being called to lead amid compounding risk and uncertainty. These realities shaped the four focus areas of FEMA's Strategic Foresight 2050 initiative:

- Leadership through uncertainty requires creative and diligent planning. Through this effort we are **integrating foresight into strategic planning to enhance long-term decision-making**. We want to minimize surprise and shape our future operating environment, instead of merely reacting to it.
- Emergency management of the future will depend on all of us. Together, we are **fostering an innovative, adaptive, and forward-looking culture across the emergency management enterprise** to empower bold leadership at all levels of government and communities and inspire optimism about our shared future.
- Creativity is a necessity as we look to an evolving disaster landscape, and our capacity for imagination is amplified when we are in conversation with each other. We are **facilitating interdisciplinary collaboration, knowledge transfer, and perspective** to grow our collective capacity and resources.
- Finally, in conducting rigorous analysis surrounding current capacity and future trends, we are **providing thought leadership on future opportunities and challenges in emergency management**. Engaging with the findings, opportunities, and questions presented here will enable more informed, intentional, and strategic decision-making in the face uncertainty and change.

On the pages ahead, we will explore the five most prominent themes that emerged from our efforts. I hope they expand your perspective and inspire action. Together, we can bend the arc of the future to build a more resilient nation.



Cynthia Spishak
Associate Administrator
Office of Policy and Program Analysis

Executive Summary

In the face of significant change in the emergency management landscape, FEMA's Strategic Foresight 2050 leverages imaginative thinking to prepare emergency managers for the future. This initiative incorporates industry-tested practices, including environmental scanning to identify current trends, forecasting future scenarios to account for uncertainties, workshoping to gather input from diverse stakeholders, and reporting to foster a future-looking culture across the emergency management community. Through these phases, FEMA identified five themes to consider while planning for an uncertain future:



Theme 1

A future of pervasive disaster risk will require a whole-of-society approach to building resilient communities that do not merely endure shocks but leverage them for long-term gain.

The impacts of natural disasters are tied to social factors, including demographic shifts, economic pressures, and cultural values. While emergencies bring enormous loss, they also present opportunity to rebuild. By leveraging the whole-of-society to holistically address survivors' needs, FEMA can help communities not only recover from persistent disasters but build resilience as we look to the future.



Theme 2

A future of increasingly complex hazards will necessitate flexible, integrative, and pre-emptive emergency management built on expansive and persistent partnerships.

The emergency management landscape is growing increasingly complex while available resources are increasingly constrained. This reality challenges emergency managers to leverage partnerships and shared resources to do more with less. Federal programs are not always suited to address all challenges, and building state, local, tribal, and territorial (SLTT) and private capacities and coordination will be critical to meeting the demand of tomorrow's disaster landscape. By fostering collaboration across sectors and scales, FEMA can support community resilience.

20
50

Strategic
Foresight
Initiative



FEMA



Theme 3

In a future of unprecedented advancement, we must use technology to solve the right problems while guarding against unintended consequences.

Advances in technology provide emergency managers with opportunities to improve operations and help people more efficiently. Simultaneously, advancement presents new vulnerabilities. By applying critical and holistic perspective in navigating the technology landscape of tomorrow, FEMA can guide the field in leveraging technology solutions while managing risk and maintaining human compassion at the center of emergency management.



Theme 4

A future of growing demands on emergency management will require a creative transformation of the composition, recruitment, and retention of our workforce.

The practice of emergency management depends on people. As workforce availability is increasingly strained, emergency management agencies are challenged to meet the demands of tomorrow's disaster landscape. By augmenting traditional skillsets while also integrating novel expertise and developing emergency management capacity outside of the traditional boundaries of the field, FEMA can build resilience within the workforce.



Theme 5

A future of social fragmentation will demand new approaches to cultivating community, trust, and self-sufficiency that enables response, recovery, and resilience.

The Nation is facing growing isolation, polarization, and contested information. Networks amplify safety, and communities are increasingly disconnected. While trust in government is low, demand for support is increasing in tandem with intensifying emergencies and risk. By fostering trust and interdependence at the local-level, while also identifying when and how to deliver targeted federal support, FEMA can prepare to manage tomorrow's emergencies.

FEMA's Strategic Foresight 2050 initiative highlights the profound uncertainty faced by the field of emergency management, while also identifying robust actions that can generate benefits regardless of what the future holds. Each of these themes presents a decision space — a spectrum of interventions and responses to address conflicting priorities. In considering these themes, and the tensions they reflect, emergency managers can prepare their teams, communities, and the Nation for the emergency landscape of tomorrow.

**20
50**

**Strategic
Foresight
Initiative**



FEMA

Introduction

Why Strategic Foresight?

We are in a moment of significant change. Weather and climate emergencies are increasing the frequency of billion-dollar disasters. Social connection is on the decline, while geopolitical tensions are on the rise. Artificial intelligence technology is transforming how we navigate the world around us. Emergency managers are responding to increasingly complex, frequent, and diverse disasters, straining both workforce and operations. This change will only accelerate as we look to the next quarter century. The work of emergency management in 2050 will look significantly different than the work of emergency management today.

Strategic foresight is a collaborative, multidisciplinary tool that allows us to explore this changing context and plan for the future. Day-to-day demands often strain emergency managers' capacity to engage systems-level challenges and opportunities. FEMA's Strategic Foresight 2050 initiative leverages imagination to account for a bigger picture and foster a rigorous, future-looking culture across FEMA and the emergency management community.



Foresight is not about predicting the future; it's about minimizing surprise.”

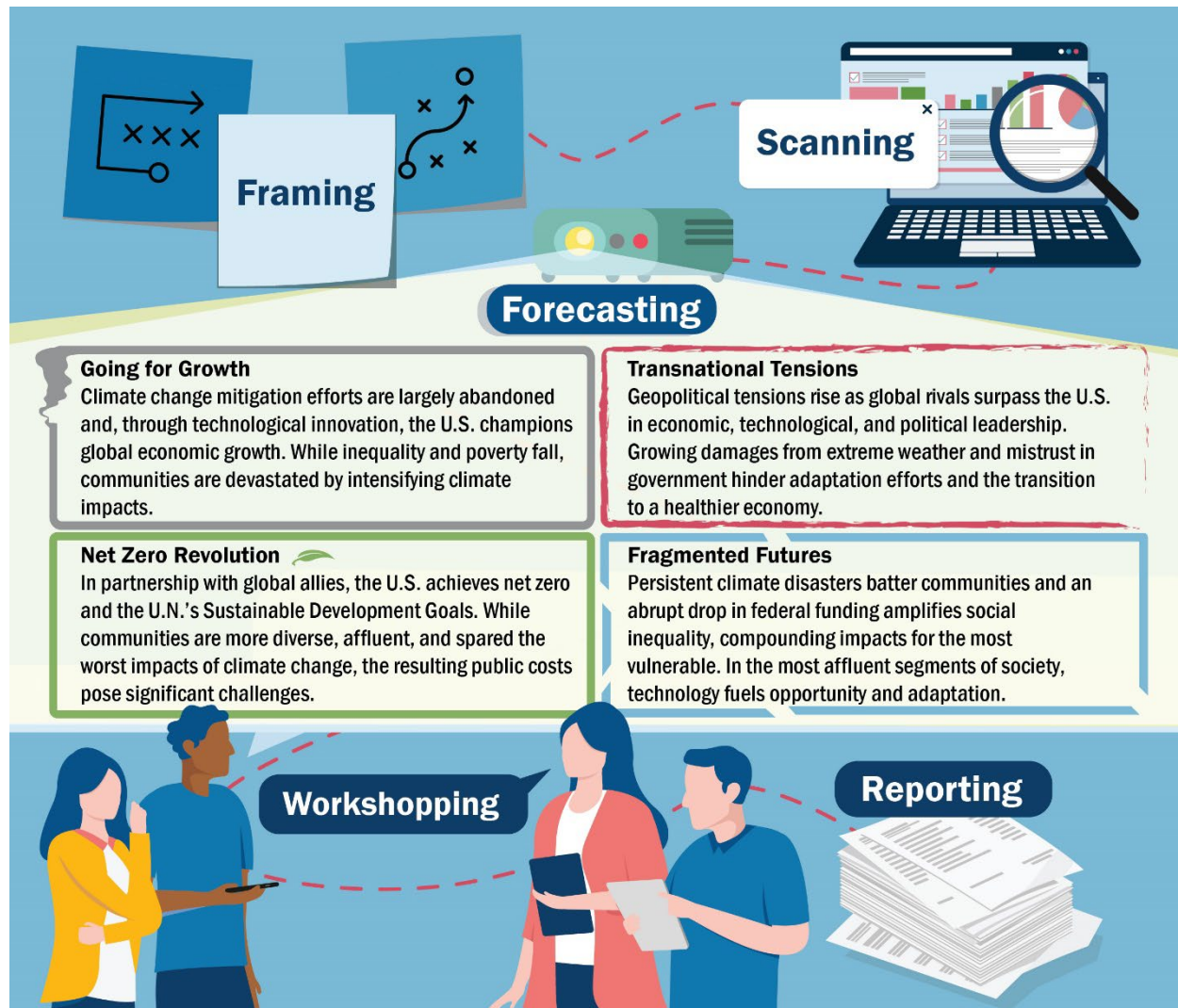
- Karl Schroeder, Author and Futurist

FEMA's Strategic Foresight 2050 Initiative

Strategic Foresight methodologies vary depending on the mission and operating environment of the organization implementing them. FEMA's Strategic Foresight 2050 initiative encompassed five phases as outlined below and further detailed in the [Strategic Foresight 2050 Methods document](#).

FRAMING AND SCANNING

FEMA framed Strategic Foresight 2050 to focus on the next quarter century of emergency management. The Social, Technological, Economic, Environmental, and Political (STEEP) framework guided systematic analysis of trends shaping the future of emergency management. In scanning academic literature, public reports, and news media, FEMA identified concrete and compelling indicators of transformative change. These outputs are captured in the Signals and Drivers Library, included in the Strategic Foresight 2050 Toolkit, and were core inputs to later stages of the initiative.



FORECASTING

FEMA developed four future scenarios from the outputs of scanning, along with climate and socioeconomic trajectories adopted by the Intergovernmental Panel on Climate Change.¹ In applying divergent projections and trends, FEMA's future scenarios capture a range of uncertainties.

WORKSHOPPING

FEMA engaged over 100 federal, state, local, tribal, territorial, private, and academic partners, and the entire agency leadership cadre, through four Strategic Foresight 2050 Workshops between February and June 2024. Participants represented a diversity of backgrounds and expertise, as depicted in the map below. Workshop participants explored the four future scenarios through a

¹ ["Climate Change 2023: Synthesis Report." 2023. Intergovernmental Panel on Climate Change \(ipcc.ch\).](#)

series of facilitated conversations and activities. The Strategic Foresight 2050 Guidebook, included in the Strategic Foresight 2050 Toolkit, provides a detailed description of the workshop approach and activities.



REPORTING

The current trends, findings, and opportunities identified through framing, scanning, forecasting, and workshoping are captured as themes in this report.

Scope and Structure of Report

This report presents five high-level themes from FEMA's Strategic Foresight 2050 initiative. These themes are not meant to be prescriptive, and their application will vary depending on the scale, context, purpose, and scope of decision-making. Each theme is presented through the following structure:

Theme: A high-level statement that describes a potential aspect of the year 2050 and its primary implication for emergency management.

Current Trends: A description of relevant signals and drivers of change identified through environmental scanning.

Findings: The biggest concerns, most-anticipated societal developments, and highest priorities for the future identified through scanning and workshoping.

Opportunities to Explore: Opportunities, stemming from current trends and findings, for FEMA leadership to consider in planning for the future.

Key Questions to Consider: Questions for emergency managers to ask themselves and their organizations to better understand the potential implications of each theme and its applications within their organizational context and scope.



A future of pervasive disaster risk will require a whole-of-society approach to building resilient communities that do not merely endure shocks but leverage them for long-term gain.



20
50

Strategic
Foresight
Initiative

Theme 1

Managing tomorrow's emergencies will require more than a professional practice; it will be a societal endeavor, requiring meaningful contributions from individuals, communities, and professionals across sectors. Community resilience will hold a critical role in the future, as cultural values, traditions, and social networks significantly enhance collective preparedness, response, and recovery efforts.

1.1 Current Trends

Natural disasters are increasing in frequency and intensity and expanding their geographic reach.

Extreme weather events are becoming more frequent, intense, and enduring, resulting in a growing number of billion-dollar disasters. This shift is tied to both changes in the climate and changes in human settlement. Today, close to one-third of the American population lives in the wildland-urban interface, regions marked by high wildfire risk, and that share is expected to increase.² Heat seasons are lasting nearly twice as long as they did 30 years ago, and major U.S. cities are experiencing an average of six heatwaves per year, which is 50 percent more than in the 1990s.³ Disasters are also presenting novel complexity. Hurricanes are intensifying, and communities are navigating rapid transitions between extreme flooding and extreme drought.⁴ Implications of these changes are wide-reaching and test the limits of current government programs. These impacts are also felt disproportionately across society, with greater burdens in low-wealth communities.⁵ In this context, building resilience requires long-term planning to incorporate climate adaptation strategies into infrastructure, community development, and government functions.

Demographic shifts and widespread social disconnection complicate disaster preparedness. At present, one in six people in the United States are over the age of 65, and by 2060 seniors are expected to encompass a quarter of the population.⁶ Seniors are more vulnerable during disasters due to physical, social, and economic limitations that impede their ability to prepare, evacuate, and recover following an event. Older adults may not have the same financial means to rebuild their lives and their heightened dependence on medication or caregiving exacerbates their risk in the face of disruption.⁷ Meanwhile, increasing immigration to the United States serves as a counterbalance to an aging population, adding new energy and innovative perspectives to our workforce and communities.⁸ This expanding cultural diversity requires more extensive culturally informed

² "Wildland Urban Interface." U.S. Fire Administration (USFA) ([fema.gov](https://www.fema.gov)).

³ "Climate Change Indicators: Heat Waves." 2023. U.S. Environmental Protection Agency ([epa.gov](https://www.epa.gov)).

⁴ "Tropical Cyclones Are Intensifying More Quickly." 2020. NCEI ([noaa.gov](https://www.noaa.gov)).

⁵ "National Climate Assessment" 2023. USGCRP (globalchange.gov)

⁶ "The Older Population: 2020." 2023. U.S. Census ([census.gov](https://www.census.gov)).

⁷ "Disaster Planning Tips for Older Adults and their Families." Centers for Disease Control (CDC) ([cdc.gov](https://www.cdc.gov)).

⁸ "Demographic Turning Points for the United States: Population Projections for 2020 to 2060." 2020. U.S. Census ([census.gov](https://www.census.gov)).

communication and outreach strategies to ensure that all community members receive timely and accurate information. Against this backdrop of demographic change, concerns about well-being, including mental health and social cohesion, are on the rise. While virtual contact is widespread, social connection, defined as the structure, function, and quality of our relationships, is on the decline.⁹ This intersection of change highlights the importance of a whole-of-society, case-based approach to addressing the social dimensions of disaster response and recovery. The capacity of individuals to bounce back from disasters is deeply connected to the strength of their social bonds and community support, which help them cope with psychological trauma and rebuild their lives.

Increasing infrastructure vulnerability, coupled with economic pressures from declining insurance accessibility and housing affordability, are compounding challenges for communities following disasters. Infrastructure is bearing the brunt of extreme weather impacts, in part because much of the Nation's infrastructure was designed for a different era – one with a smaller population and fewer extreme weather events. In our current landscape, traditional approaches to managing risk and losses are insufficient. Rising insurance costs and declining insurance availability are leaving many households financially vulnerable, limiting their ability to recover from disasters. For example, increased wildfire risk has led nineteen of California's leading homeowners' insurers to restrict coverage, while some are withdrawing entirely from the state. A similar pattern has emerged in Florida, where insurers are backing away from the market due to poor financial performance; nine property and casualty insurers have become insolvent since 2021.¹⁰ Housing affordability presents an additional challenge as homeownership is increasingly unaffordable for all but the highest-income households. This trend has cascading impacts, including rising costs forcing many families into substandard housing with more disaster risk, and growing cost-burden for renters amplifying the impact of unanticipated costs following disaster.¹¹ Expanding financial vulnerability at the household scale necessitates society-wide structures of support to ensure community recovery following disasters and allow for continued preparedness as disaster impacts compound.

1.2 Findings

A future with increased disasters appears unavoidable, but the impacts will vary depending on local factors like socio-demographics and investments in resilience. As disasters increase in frequency and severity, regions with robust investments in resilience building such as risk reduction, social trust promotion, and dynamic adaptation strategies will likely fare better than those with fewer resources. Demographic shifts, such as an aging population and migration, will also influence how communities experience and respond to disasters. Directed funding can provide the necessary capital for building community resilience, but without equitable access to the benefits of that growth, disparities in disaster impacts may widen. In discussing social vulnerability across future scenarios,

⁹ [“Our Epidemic of Loneliness and Isolation.” 2023. U.S. Public Health Service \(hhs.gov\).](#)

¹⁰ [“Wind, Fire, Water, Hail: What is Going on in the Property Insurance Market and Why Does it Matter?” 2023. Office of Financial Research \(financialresearch.gov\).](#)

¹¹ [“JCHS State of the Nation's Housing Report” 2024. Housing and Urban Development Office of Policy Development and Research \(huduser.gov\).](#)

FEMA's Strategic Foresight 2050 Workshop participants found that meeting the complex, overlapping demands of increasing hazards and growing social vulnerability will require leveraging capacity and expertise across sectors and mobilizing targeted response to meet community needs at scale.

Pervasive disaster risk may drive changes in patterns of community migration. Workshop participants across future scenarios posited that increasing disaster risk may drive increased community relocation at varying scales across geography. In coordination with federal partners, FEMA currently provides hazard mitigation funding to support community-driven relocation in some cases.¹² Workshop conversations reflected varied perspectives on migration as an adaptation strategy. While some highlighted the increasingly untenable cost of insurance, mitigation, and disaster response in some regions, others emphasized the inherent complexity and trauma of community movement, stressing the importance of ensuring a decision to pursue relocation is community-driven. Additionally, many workshop participants shared uncertainty about what role emergency managers, and government more broadly, should play in this space, particularly given the tragic history of forced migration in the U.S. Many workshop participants noted the likelihood of disproportionate impacts. Communities with fewer resources to adapt in place may be more likely to leverage relocation despite negative ramifications. Furthermore, low-resourced, high-risk areas are more affordable and available, and therefore likely to become destinations for relocation. Relocation to these areas, and the associated influx of community members navigating the complex implications of migration, will likely exacerbate vulnerabilities. While migration may augment community resilience in the face of persistent disaster, social and cultural implications highlight the importance of ensuring relocation is community-driven and a whole-of-society approach is taken to account for cascading vulnerabilities.

Cultural resilience is a critical dimension of community resilience. Deep connections to place, traditions, and intergenerational social networks influence community preparedness and response, perceptions of recovery, and understandings of viable mitigation strategies. One workshop participant highlighted this point in reference to their community, sharing that while sea level rise is pushing communities inland, more inland regions are seen as sacred and culturally distinct from community settlement: “Where do we go between the sea and the mountains?”, they asked. Building cultural resilience will challenge emergency managers to support communities in accounting for changing risk in tandem with cultural heritage in determining viable resilience pathways. Workshop participants emphasized the importance of engaging meaningfully with the whole-of-society to holistically understand priorities and incorporate these considerations into resilience planning.

Emergencies provide an opportunity to build a more positive future. While disasters inherently hold loss and challenge, they also present a moment of opportunity. Emergencies activate the whole-of-society, and communities can leverage that activation to rebuild stronger. In considering pathways to resilience, workshop participants emphasized opportunities to learn from other nations and cultures

¹² [“FEMA Efforts Advancing Community-Driven Relocation.” 2022. FEMA \(fema.gov\).](#)

across time, noting the diversity of approaches to emergency management and community resilience. Improvement through recovery may include upgrading infrastructure, mitigating cyber vulnerabilities to critical government functionals, restoring and expanding resilient ecosystems, and fostering increased community connectedness. Providing a historical example, one workshop participant reflected, “the Great Chicago Fire [of 1871] presented an opportunity to rebuild a grid system with wider roads and alleys because of the catastrophic event.” Just two decades later, the city hosted the World’s Fair, showcasing a fire-resistant, modern, model city.¹³ Communities are challenged to do this work in the face of compounding disasters, and strategic sequencing of short- and long-term investment in mitigation is needed to build resilience while managing immediate disaster risk.



We know we will have to do more with less, [...] but we tend to box check the whole community approach. We can be better about meaningfully elevating those voices.”

- SLTT Emergency Manager, June Workshop Participant

1.3 Opportunities to Explore

Improving public engagement with disaster risk management can empower individuals and communities to make informed decisions that increase resilience. By engaging diverse community members in planning and decision-making processes, emergency managers can develop more effective and culturally attuned strategies. Leveraging local partnerships and creative engagement methods, such as art-based activities or facilitated games, can develop trust and support connection and understanding at the community scale. Furthermore, enhanced access to accurate, timely, and targeted climate data empowers individuals, governmental entities, infrastructure owners and operators, and others to understand the specific risks they face and take proactive measures to mitigate those risks. This increased information accessibility supports a whole-of-society approach by enabling more effective participation in resilience-building efforts. FEMA can build a shared understanding of risks and foster community-driven preparedness and resilience through public education campaigns, transparent communication, and creative community engagement.

The use of adaptive design in policy, planning, and public works can enable proactive yet flexible measures that adjust to changing conditions and enable resilience. The rapidly evolving threat landscape requires systems that can dynamically adjust to mitigate risks and capitalize on new opportunities. Adaptive planning frameworks support action amid uncertainty by mapping divergent policy and planning pathways and identifying actions, along with monitoring and adaptation schemes, to promote desired outcomes. This approach leverages modularity and decentralization to promote flexibility and responsiveness as outcomes unfold. Adaptive planning can facilitate policy

¹³ [“Petition Signed by Thomas A. Edison for Sunday Openings at the World's Columbian Exposition.” 2017. National Archives \(archives.gov\).](#)

adaptation at the federal scale, supporting accountability to desired policy outcomes. FEMA also has the opportunity to incentivize the use of adaptive design concepts at the community scale. Integrating scenario mapping and contingency planning can enable communities to better mitigate hazards and leverage disaster to drive innovation, improve land use planning, and reimagine infrastructure development.

In the face of compounding disasters, FEMA can support communities in driving reinvention of their cities and regions. Compounding shocks and stressors amplify urgency in building communities' capacity to withstand, recover, and grow from disaster, requiring creative and targeted strategies. Such planning depends on a whole-of-society approach, where diverse and cross-cutting experience and expertise is integrated into decision-making. While the federal government holds an important place at the table, community-driven planning can contribute to strategies that appropriately account for geographic and cultural priorities. FEMA can learn from emergency management paradigms across cultures and time to foster creativity in developing structures to support community reinvention. Traditional and place-based practices may offer underutilized frames and solutions to support resilience. Pathways to implementation include leveraging federal funding to advance community-led infrastructure transformation, emphasizing nature-based solutions, and prioritizing innovative design.



Questions to Consider

- How can you gather, use, and share climate and disaster information to empower communities and improve decision-making? What scale of detail is required to make information actionable?
- What strategies can be adopted across our field to embed cultural resilience into policy and practice, ensuring that the values, knowledge, and identities of diverse communities are recognized and integrated into decision-making?
- What disaster resilience strategies can you employ if insurance coverage continues to decline in the face of financially unsupportable risks?
- How can your community use the aftermath of disaster as a chance to invest in sustainable growth and wealth creation?



A future of increasingly complex hazards will necessitate flexible, integrative, and pre-emptive emergency management built on expansive and persistent partnerships.



20
50

Strategic
Foresight
Initiative

Theme 2

The emergency management landscape is growing more complex while available resources are increasingly constrained. Anticipating change and acting preemptively by building capacity with diverse partners will allow FEMA and the emergency management enterprise to mitigate risk before disaster strikes.

2.1 Current Trends

The increasing interconnectivity of security challenges amplifies the need for cross-cutting emergency management capabilities. Today's threat environment presents growing potential for compounding security emergencies, including threats to resource availability, threats from natural disasters, and threats from foreign actors. The U.S. Intelligence Community's 2024 Annual Threat Assessment identifies intense and unpredictable transnational tensions, highlighting the potential need for increased security resources.¹⁴ The traditional overlaps in response capacities between these sectors, including the National Guard, highlight the need for cross-cutting capabilities. Meanwhile, changes in the climate are threatening critical resources. Reduced snowpack and sustained drought are contributing to urgent water shortages, with negative implications for agriculture, energy production, and human health. Agricultural threats are amplified by warming seasons, shifting growing zones, and intensifying pressure from pests and pathogens.¹⁵ The increasing strains on these critical resources are likely to be exploited by nation state adversaries and pose risks for compounding emergencies.

The COVID-19 pandemic highlighted the significant impact that global health crises, and enduring emergencies more broadly, can have on societies and economies. As the disaster landscape broadens, FEMA is challenged to prepare for emergencies that extend far beyond traditional natural disaster geographies and timelines. Extreme heat, enduring severe drought, and pandemics require infrastructure for tiered and long-term management. For example, the COVID-19 pandemic dramatically complicated traditional disaster response, requiring FEMA to activate the National Response Coordination Center for an unprecedented 475 days as the agency adapted to new mission sets and operations.¹⁶ Meanwhile, traditional disasters continued to hit communities, necessitating housing solutions for hurricane and wildfire survivors that minimized the transmission of vector-borne illness.¹⁷ The pandemic also highlighted how enduring disasters can disrupt increasingly interconnected global supply chains, limiting the availability of resources critical for

¹⁴ [“Annual Threat Assessment of the U.S. Intelligence Community.” 2024. Office of the Director of National Intelligence \(odni.gov\).](#)

¹⁵ [“Fifth National Climate Assessment.” 2023. U.S. Global Change Research Program \(globalchange.gov\).](#)

¹⁶ [“FY 2021-2023 Annual Performance Report.” 2023. Department of Homeland Security \(dhs.gov\).](#)

¹⁷ [“Potential FEMA Emergency Sheltering Options During the COVID-19 Pandemic.” 2020. Congressional Research Service \(congress.gov\).](#)

response and challenging the current paradigm of emergency management, which is not designed to manage scarcity.

Federal, state, local, tribal, and territorial emergency managers are facing increasing coordination requirements as risks and disasters grow more complicated and interconnected. The availability of federal funding for cross-cutting mitigation, response, and recovery efforts has increased dramatically over the past decade, presenting new opportunities to respond to complex and enduring disasters through multidisciplinary and multijurisdictional initiatives. Executing such initiatives demands coordination far beyond what emergency managers have historically undertaken. Jurisdictions are establishing new capacities such as Chief Resilience Officers and resilience offices to oversee this coordination, requiring staff to develop new skillsets or recruit expertise. While these developments are promising, significant resource and capacity challenges remain in ensuring that intended outcomes are achieved.

2.2 Findings

In 2050, funding for emergency management may be severely limited at multiple levels of government. State and local governments frequently rely on federal funding to sustain their emergency management operations, but this dependence can produce administrative burdens and long-term uncertainty. Meanwhile, decreasing federal discretionary funding, growing debt held by the public, and widening deficits will continue to significantly exacerbate national financial insecurity.¹⁸ Workshop participants shared a consensus view that the trajectory of emergency management funding calls for a reinvention of federal partnerships and how communities access and leverage resources. Some suggested that shifting SLTT funding models from a “pull model,” where organizations must seek out and apply for grants and disaster assistance, to a “push model” where resources flow into eligible communities in a more streamlined manner, would increase efficiency and reduce administrative burdens. Many reflected that the entire emergency management enterprise will be called to do more with less in managing the disasters of tomorrow, further emphasizing the need for a holistic approach to hazard mitigation that encompasses more than traditional emergency management activities and funding sources.


Recognizing the distinction between being a resource and being a partner will be crucial in federal – SLTT interactions. While federal dollars will continue to play an important role in emergency management of the future, federal partnership requires sharing a broader array of resources multidirectionally. As the disaster landscape grows more interconnected, developing coalitions and consensus to facilitate the multidirectional exchange of data, expertise, and trust will become an increasingly important skillset for those working in emergency management. Such partnership will allow FEMA to deliver more targeted and effective support. Furthermore, by supporting state, local, tribal, and territorial investment in regional capacity, rather than comprehensive reliance on federal funding, FEMA can encourage the development of response and recovery models that sustain

¹⁸ [“The Nation’s Fiscal Health: Road Map Needed to Address Projected Unsustainable Debt Levels.” 2024. U.S. Government Accountability Office \(GAO\) \(gao.gov\).](#)

through complex pressures and meet the unique needs of the communities they serve. One workshop participant exemplified the need for this change sharing, “[our office] has 75 employees, and 72 of those positions are federally funded. What do we need to build state and local capacity? We have to move away from being reliant on the Federal Government.”

The role of the private sector in emergency management is highly dependent on assumptions about the future, underscoring the need for a robust, collaborative approach. Many workshop participants anticipated that emergencies of tomorrow would push public sector resources to the brink, increasing reliance on private sector support. The private sector currently supplements the emergency management enterprise through contracted staff, non-profit volunteer support, and research capacity, among other avenues. While the private sector is likely to be an important player in the future of emergency management, the structure and degree of its roles are unknown. This uncertainty calls for an adaptive and collaborative approach to building public-private partnerships. This need is exemplified through the evolving role of insurers. Workshop participants unanimously agreed that, looking to the future, insurance companies would likely continue to reduce and eliminate coverage in high-risk areas. Accordingly, several participants described a need to transform the current insurance paradigm to better address evolving risk by disseminating responsibility across sectors and scales. The success of such transformation will likely depend on flexible systems and effective collaboration.

The future roles of other federal agencies in emergency management are marked by widespread uncertainty. While FEMA is the nation’s lead emergency management agency, achieving the National Preparedness Goal relies on a collaborative network of federal agencies. Core capabilities are distributed across five mission areas — prevention, protection, mitigation, response, and recovery — in a system of systems. As a result, the future of emergency management is contingent on the evolution of these agencies over time. Workshop participants shared concerns that the Department of Defense, and specifically National Guard assets, may face increasing demands due to expanding geopolitical tensions and other global commitments in the future. Further, SLTT workshop participants highlighted the need to expand direct access to a wider number of federal partners and optimize these relationships.

 “We will all be emergency managers in the future! We must embed crisis management within all government agencies at all levels so they can handle issues themselves.”

- SLTT Emergency Manager, April Workshop Participant

2.3 Opportunities to Explore

Right-sizing government capacity across scales can help to address unsustainable reliance on federal funding while recognizing the critical role of federal resources. State, local, tribal, and territorial governments have a unique opportunity to develop novel strategies and resources to transition toward more sustainable, resilient emergency management practices. This might include

forming regional coalitions to share resources, enhancing risk assessments of government essential functions, developing mutual aid initiatives to mitigate vulnerabilities, investing in community-based disaster preparedness programs, and fostering local innovation in emergency response technologies. FEMA can facilitate operational improvements that allow SLTT governments to leverage these opportunities by providing incentives, best practice frameworks, and connections between communities navigating similar challenges. In concert with local governments, FEMA can additionally advance capacity across levels of government through responsive resource allocation and program development. As one participant noted, “they will tell you what they need, but they will also tell you what they [are] doing that’s worked, if you listen.” The federal government should continue developing avenues to solicit input from community partners early and often to prioritize resources effectively. However, FEMA and its partners also have an opportunity to reduce complexity and help localities address process inefficiencies to do more with less.

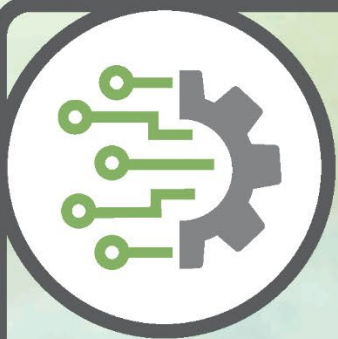
Emergency managers can establish deeper positive feedback loops with the private sector that enable collaboration and collective learning. Rising risk and cost of disruption highlights the importance of business continuity planning, but the practice is not yet universal across the private sector. At the same time, private companies have significant capacity and often excel in understanding customers, supply chain management, and logistics. FEMA can help drive the cross-pollination of ideas and practices to foster a culture of readiness that touches all of society. This might include the development of new risk-sharing mechanisms, such as community-based insurance pools, and innovative resource allocation models that provide financial protection to the most vulnerable populations. In some cases, the private-sector toolbox is best positioned to solve a problem. Public-private partnerships therefore play a crucial role in enhancing community resilience, with businesses contributing resources and expertise to augment local capacity, enhance adaptation, and simplify access to funding. These might include managing food distribution following an emergency or incentivizing the use of forward-looking building codes and materials.

FEMA has the potential to play a pivotal role as a multiplier of cross-sector connectedness and resilience. Community resilience is driven by an ecosystem of interdependent organizations that co-evolve their roles, capabilities, and investments to create collective value. Arriving at coherent, collective solutions requires an orchestrator to motivate and coordinate activities. Furthermore, integrated funding streams, resource distribution methods, and communication pathways are foundational for a network to function successfully. FEMA has an opportunity to serve as a leader in this space. Understanding the system of linkages between organizations is an invaluable tool in facilitating holistic preparedness in the face of increasingly complex disasters. By emphasizing trust-building competencies within the workforce and fostering collaborative relationships, FEMA can prepare to facilitate the multi-directional communication and learning necessary to address complex and compounding emergencies. In addition, system-wide network analysis of established partnerships and initiatives may allow FEMA to identify missing links, amplify positive impacts, issue corrective guidance, and blend grant funding to improve whole of society resilience.



Questions to Consider

- What systems of collaboration would best support FEMA, SLTT emergency management organizations, and the private sector in fostering multi-directional pathways of communication and learning?
- How does the “push vs. pull” model of emergency management funding manifest in your work? What are your common bottlenecks and why do they exist?
- What does your community’s network of resilience look like? What linkage gaps might limit your capacity to adapt to a changing disaster landscape?
- What structural changes would best support balancing government capacity and funding across scales, allowing community partners to build local resources and foster sustainable resilience?



In a future of unprecedented advancement, we must use technology to solve the right problems while guarding against unintended consequences.



20
50

Strategic
Foresight
Initiative



Theme 3

Advances in technology are putting information into the hands of decision-makers more quickly, accelerating disaster response, recovery, and resilience efforts. But while technological innovation can drive improvements in efficiency and effectiveness, these benefits are accompanied by vulnerabilities. Security gaps and rising dependence on technology will introduce new risk for the emergency management enterprise.

3.1 Current Trends

The rate of technological advancement is exponential, creating opportunities and challenges for emergency managers. Advancements in communications, robotics, and the growing applications of artificial intelligence (AI) have the potential to be force multipliers for analyzing vast datasets, improving workforce efficiency, and predicting the disaster landscape. For example, unmanned aerial systems (UASs) and other autonomous platforms have rapidly emerged as tools with the potential to enhance aerial assessments, search and rescue missions, and supply deliveries to remote or inaccessible areas.¹⁹ While technological advancement holds considerable opportunity, it also introduces risks to emergency managers.²⁰ Cyberattacks are an increasing globalized threat that have hit local governments and a variety of industries, including, energy, lodging, transportation, and healthcare.²¹ These cyberattacks can introduce chaos during disasters if leveraged to interrupt critical governmental functions, both in rendering those operations ineffective and in increasing mistrust of federal and SLTT government leadership and functions. Some developments, such as AI, present risks that are notably harder to anticipate or predict. The complex interplay between vast amounts of data, sophisticated algorithms, and computational power could lead to emergent behaviors not explicitly programmed by developers. Further, the integration of AI into various processes will continue to change the fabric of the emergency management profession. Unknown unknowns in this sector contribute to abundant uncertainty and associated risk.

While electrification is a key tool in sustainability, scaling electrical solutions introduces risk. The power grid is highly vulnerable to both acute and chronic climate impacts due to fragile components and relatively low system redundancy. Increases in storm frequency and intensity elevates the risk of damage to above-ground transmission infrastructure, like antennae, switch boxes, overhead wires, and cables. This infrastructure often serves as the final connection to homes and businesses, and disruptions can adversely affect power and telecommunication service delivery. For example, in February 2021, a winter storm in Texas caused a historic energy blackout that disrupted railroads and forced three major semiconductor plants to close, causing a cascade of implications felt across

¹⁹ [“DHS Releases Guidance for Unmanned Aerial Systems for Public Safety Missions.” 2024. USFA \(fema.gov\).](#)

²⁰ [“2021 Trends Show Increased Globalized Threat of Ransomware.” 2022. Cybersecurity and Infrastructure Security Agency \(CISA\) \(cisa.gov\).](#)

²¹ [“Cybersecurity Alerts & Advisories.” 2024. CISA \(cisa.gov\).](#)

industries.²² New advancements in electric vehicles, cloud computing, and advanced manufacturing will not only increase energy demands, but also the risk and impact of disruption. As communities grow increasingly reliant on these technologies, failures in infrastructure will have significant and cascading impacts, such as in the event of an electrical blackout coinciding with an evacuation order. Further, integrating renewable energy sources into the U.S. electrical grid will complicate the recovery of services following a disaster due to their unique geographic, transmission, and storage needs. Building grid resilience to meet future demands will require greater interregional capacity.

New technologies are quickly becoming ubiquitous, but their promise is not yet fully realized. The growing prevalence of wearable devices, internet-connected appliances, and facial recognition software is rapidly increasing available data on human behavior. Simultaneously, AI is establishing new avenues for harvesting and analyzing large datasets, synthesizing individual actions into a cohesive storyline. Researchers are working to leverage such advancements to address persistent challenges in the emergency management space, like understanding population movement during and following disasters. However, implementation is not keeping pace with potential. Effectively deploying technology solutions, and managing their associated risks, often requires significant human capital, resources, and infrastructure. Limited capacity across many emergency management agencies is slowing the process of using these advancements at scale.

Embedded biases in AI development and implementation inform community impacts. AI software is trained on historical data, which presents a challenge in a rapidly changing disaster environment. Societal factors shape the inputs to AI technology development and, as a result, outputs reflect implicit biases.²³ The usefulness of decision-support is dependent on accurate modeling that accounts for community-specific dimensions of change. Additionally, measurement methods for risk and trustworthiness in AI applications are in their infancy.²⁴ While AI holds the potential to generate benefits for communities, it may cause negative impacts for some if biases and risk are left unaddressed. Further, leveraging AI for particular use cases like law enforcement related actions, provision of government benefits, or administrative determinations will need to be closely monitored to ensure effective use and trustworthiness. Responsible AI application will require a robust framework for detecting bias and enforcing accountability. This capacity will need to address both development inputs — including training data, testing schemes, and model transparency — and the outputs of AI applications.

3.2 Findings

A deeper incorporation of technology into emergency management is essential to keeping pace with the increasing frequency, severity, and complexity of disasters. In a field already facing workforce shortages, future innovation may allow emergency managers to increase efficiencies, scaling up response while managing staff capacity. Effectively leveraging technological solutions can enable

²² [“How Climate Change Is Disrupting the Global Supply Chain.” 2022. Yale School of the Environment \(yale.edu\).](#)

²³ [“There’s More to AI Bias Than Biased Data.” 2022. National Institute of Standards and Technology \(NIST\) \(nist.gov\).](#)

²⁴ [“Artificial Intelligence Risk Management Framework.” 2023. NIST \(nist.gov\).](#)

increasingly swift, wide-ranging, and accessible communication with the public when disasters strike. Similarly, technological advancement can support rapid information-gathering on high priority lifelines, allowing more efficient and effective prioritization of response actions. Workshop participants noted that applications of technology solutions are resource-dependent, reflecting that more resource-constrained future scenarios generally elicited lower-tech solutions. While technology poses enormous opportunity, it may benefit some communities more than others depending on the future economic landscape of the Nation.

Effective application of technology solutions will require human validation, trust-building, and careful planning. While technology is an invaluable tool, emergency management is a human-centered endeavor. Stakeholder engagement and empathetic relationship-building is foundational to the work we do. Many workshop participants expressed trepidation around technological advancement and its potential vulnerabilities. Effectively integrating new technology into emergency management requires data-informed decision-making in partnership with stakeholder validation and trust-building to ensure that the right problems are identified and addressed and that communities are not burdened with undue risk. Technological advancement will also challenge emergency managers to continually adapt to new systems while simultaneously supporting this adaptation in the communities they serve. Workshop participants emphasized the importance of planning for cascading impacts of these new advancements, highlighting the human and community dimensions of perpetual technological change. Technology can be a powerful tool to expand capacity, but it should not replace efforts to bridge gaps in human capital.

Cyber threats present a compounding challenge for the emergency management enterprise as associated implications and roles are unclear. Cyber threats are increasingly universal and their implications for emergency managers may be far-reaching. Workshop participants reflected limited understanding of the scope, source, and potential cascading consequences of cyber threats, posing a challenge for effective mitigation and response. In the emergency management sector, cyber threats may complicate traditional disasters by, for example, interrupting communications or financial services in the aftermath of a hurricane. Cyber threats also present novel emergencies, like a ransomware attack on a powerplant or a port. In such cases, impacts can span across geographic and sector boundaries, making the response lead unclear. Workshop participants called for increased coordination and clarity to prepare for such events, which will only continue to increase as we look to the future.



If we don't have the right people, it doesn't matter what technology we provide, or what toolkit we use."

- SLTT Emergency Manager, May Workshop Participant

3.3 Opportunities to Explore

FEMA can guide the field in implementing new technologies while preserving the compassionate core of emergency management. In an increasingly digital world, the impact of human connection is paramount, particularly in times of disaster. As one workshop participant reflected, “a chatbot generated response to a survivor will never have the same effect as, ‘it happened to my uncle...’”. In applying technological solutions with intentionality, emergency managers can streamline response and recovery initiatives while consciously retaining analog processes to maintain human connection at the core of our work. In some cases, this may involve making conscious trade-offs between human impact, efficiency, and cost effectiveness. FEMA has an opportunity to invest in workforce competencies that promote human connection in partnership with technology solutions, guiding the field in balanced application of advancements.

Emergency managers can leverage technology to enable increasingly de-centralized and dynamic workflows. The National Incident Management System (NIMS) is our country’s answer to creating a common, interoperable approach to sharing resources, managing incidents, and communicating information across governments and sectors. In doing so, NIMS advances a hierarchical management structure that relies on dense formal procedures, specialized training and language, and extensive reporting requirements. While effective in many ways, these features require substantial investment to develop the workforce capacity necessary for implementation. This can serve as a barrier to leveraging the whole-of-society and integrating non-governmental organizations into emergency response, particularly when resources are limited. Technology could enable more nimble approaches to emergency management that leverage crowdsourcing, blockchain, and self-organizing systems. Further, many incidents feature responders who self-dispatch out of concern for their fellow citizens, more effectively steering, enabling, and optimizing these behaviors could help address gaps in capacity.

FEMA can reimagine operations to leverage AI to its full potential. Leveraging AI may support emergency managers in better helping survivors, reducing administrative burdens, or identifying opportunities for more efficient resource allocation. This could include using AI to improve customer support, synthesize situational awareness data, develop exercise content, or adapt planning factors to a specific set of circumstances. While beneficial, such activities could also create a new reliance on technology and reduce institutional knowledge. To confront the scale of potential challenges, numerous workshop participants remarked that the field needs to take a step back to consider what it is trying to accomplish. One workshop participant noted that emergency managers “can’t be afraid to blow [the current paradigm] up a little bit. At our core, we’re risk managers and risk mitigators.” Leveraging the full potential of technology will require experimenting with new approaches, reinventing workflows, and transforming the way we interact with information.



Questions to Consider

- How can you ensure that the appropriate voices are at the table in deciding what the right problems for technology solutions are? How can you ensure that stakeholders are involved in deciding what risks are not worth taking?
- What safeguards does your organization have to protect individuals and communities against the unintended consequences of technology, including issues of accessibility, privacy, and ethics?
- What technology solutions would support you and your organization in better aligning your time investment with your strategic priorities? What barriers are impeding access to these solutions and how might you overcome them?



A future of growing demands on emergency management will require a creative transformation of the composition, recruitment, and retention of our workforce.



**20
50**

**Strategic
Foresight
Initiative**

Theme 4

The practice of emergency management depends on people. As workforce availability is increasingly strained across sectors, emergency management agencies are challenged to build cadres that reflect the size, stability, and preparedness necessary to meet the disasters of tomorrow. Improving alignment between workforce skills and community needs may allow for more targeted and effective disaster mitigation, response, recovery, and resilience. Meanwhile, integrating emergency management principles across government sectors and civil society may augment capacity through increasingly frequent, severe, and complex disasters.

4.1 Current Trends

Workforce availability is tightening nationwide as demographics shift. The COVID-19 pandemic resulted in major local government labor loss across the country, with public safety roles among the hardest hit and slowest to recover. While Gross Domestic Product and total employment are projected to increase steadily in the coming decade, the labor force participation rate is expected to fall, growing the labor gap across sectors. As the Nation's population ages, retirement is outpacing recruitment in some sectors.²⁵ In March 2022, the U.S. Department of Labor reported job turnover at its highest in history, attributing the peak to worker stress, worker burnout, and potential employees seeking better compensation, benefits, and flexibility.²⁶ The trend in turnover has since abated, but strained hiring has sustained.

In the face of increasing demands, FEMA is struggling to maintain a robust workforce. From 2019 to 2022, FEMA's staffing gap fluctuated between approximately 19% and 38% understaffed. The U.S. Government Accountability Office (GAO) attributes these retention challenges, in part, to growing demands on staff associated with the high intensity, year-round pace of the growing emergency management portfolio.²⁷ During fiscal year 2020, which included the beginning of the COVID-19 pandemic, the disaster workforce lost 20 percent of its staff (over 2,600 employees). Further, experienced baby boomers are retiring, contributing to an overall loss in talent. Associated strain is felt acutely at both local and federal levels.²⁸

On-the-job training, not only for new hires, but also for mid-career individuals, is a growing feature of the labor market. The cost of secondary education is higher than ever, while overall college enrollment has stagnated over the past decade.²⁹ As such, there may be fewer people with degrees and the technical skills needed for some emergency management jobs. Furthermore, the application of new technologies in the workplace, such as AI, may challenge existing workers and require both

²⁵ "Shift in Working-Age Population Relative to Older and Younger Americans." 2020. U.S. Census ([census.gov](https://www.census.gov)).

²⁶ "Job Openings and Labor Turnover – March 2022." 2022. Bureau of Labor Statistics ([bls.gov](https://www.bls.gov)).

²⁷ "FEMA Disaster Workforce: Actions Needed to Improve Hiring Data and Address Staffing Gaps." 2023. U.S. GAO ([gao.gov](https://www.gao.gov)).

²⁸ "By 2030, All Baby Boomers Will Be Age 65 or Older." 2019. U.S. Census ([census.gov](https://www.census.gov)).

²⁹ "College Enrollment Rates." 2024. National Center for Education Statistics ([ed.gov](https://nces.ed.gov)).

upskilling (i.e., teaching an employee new skills to optimize their performance) and reskilling (i.e., training an employee to adapt to a different position). This would represent an amplification of existing trends. In 2017, the McKinsey Global Institute estimated 375 million workers globally might need to invest in additional training by 2030 to keep pace with the changing landscape of labor.³⁰ In 2023, the World Economic Forum published a report based on survey results of more than 800 companies, anticipating a major turnover in needed roles: employers expect to create 69 million new jobs by 2027 and eliminate 83 million positions.³¹ The intersection of these trends with the evolving demands placed on emergency management will continue to shape the workforce and what it means to professionally develop.



The most dangerous emerging threat is structural changes in the global labor market, where in the U.S. we could have 30 percent turnover in the next ten years as people retire.”

- Federal Partner, May Workshop Participant

4.2 Findings

The tension between growing demand for human capital and contracting workforce availability is a top challenge facing emergency management. Workshop participants echoed the literature indicating a declining supply of talent, with fewer members of younger generations entering public service careers and increasing demands to respond to larger, more diverse, and more complex threats. This tension is present at all scales of government: from local emergency management offices to FEMA. It is exacerbated at the federal scale, where FEMA employees hold both steady-state and disaster titles and are expected to maintain competencies to perform in both roles. While this structure supports continuity between mission states, it taxes the workforce, particularly as disaster events increase. Workshop participants reflected that the expanded demands and cadence of emergency management offices may be a deterrent to entering the profession. Potential employees may be more attracted to careers with more easily anticipated hours and consistent flexibility. Workshop participants additionally noted that worker retention poses a challenge for some SLTT emergency management organizations, as staff are recruited to FEMA and the private sector where pay is more competitive and upward mobility is often more available. They suggested that growing workforce capacity across scales may require systems for rapid recruitment and training, increased flexibility for experienced employees, and more competitive compensation packages and incentives. Increased coordination across scales of government may improve state, local, tribal, and territorial governments’ ability to develop these capacities.

³⁰ “Jobs lost, jobs gained: Workforce transitions in a time of automation.” 2017. McKinsey Global Institute ([mckinsey.com](https://www.mckinsey.com)).

³¹ “Future of Jobs Report 2023.” 2023. World Economic Forum ([weforum.org](https://www.weforum.org)).

Emergency managers are often an invisible force in communities, amplifying recruitment and retention challenges. While many public services are highly acclaimed in the public eye, the coordination work of emergency management often goes unseen, particularly during blue-sky periods. In framing this challenge, workshop participants juxtaposed emergency managers with first responders, suggesting that the comparatively limited visibility and understanding of the emergency management field contributes to workforce challenges. One participant voiced this sense of invisibility, saying “the time and effort we put behind the scenes needs to be recognized, not only when a disaster happens.” Potential recruits may be deterred from pursuing careers in emergency management due to a lack of information on the field’s unique role, breadth of activities, and impact it can have on building resilience beyond public safety.

A diversity of skillsets and backgrounds is an invaluable asset to the emergency management workforce. With the growing severity and frequency of disasters, the scope of demands placed on emergency management has widened, requiring a more diverse workforce. Workshop participants emphasized a need to expand the approach to recruitment and holistically consider the skills required by an emergency management role, which include tactfully navigating politics and bureaucracy, building diverse coalitions, and managing long-term risk reduction. These skills are particularly important at the leadership level, highlighting the need to recruit broadly across the career ladder. Some additionally noted the value of looking beyond traditional military and first-response career pathways and hiring second-career applicants, who may bring relevant and missing expertise to emergency management teams. Design, social work, engineering, and teaching backgrounds, among many others, could prove invaluable in building resilience nationwide. Workshop participants additionally noted that, in the face of workforce shortages, a wider candidate pool can mitigate burnout and provide more opportunities to fill roles, while expanding the body of knowledge, experience, and skillsets available to the field. Furthermore, connection and trust are at the core of emergency response, and a more diverse workforce holds more avenues to relate to disaster survivors on their hardest days.



As our scope expands, we should be hiring people with different backgrounds. Those diverse backgrounds are helpful as we deal with a diverse set of problems we haven’t faced before.”

- Federal Partner, June Workshop Participant

4.3 Opportunities to Explore

Targeted marketing of emergency management could counteract its reputation as an often-hidden profession. Through relationship building and public outreach, FEMA has an opportunity to foster increased awareness and appreciation of the entire emergency management workforce. Targeted outreach programs could be leveraged to engage younger generations, underrepresented groups, and potential second career hires. Media campaigns that showcase both the personal opportunities and societal value that emergency management offers could enhance morale and recruitment. Simultaneously, encouraging wider understanding of emergency management work at the community level through relationship-building and stewardship may serve as a grassroots approach to workforce development. Marketing should define emergency management's unique role in public safety by highlighting its focus on multidisciplinary planning, coordinating resources and information, and building long-term resilience.

Further professionalizing emergency management could enhance productivity, improve affordability, and boost morale across the workforce. By refining emergency management's "defined body of knowledge," as one workshop participant described, FEMA can better standardize best practices, set clear competencies, and develop robust pathways for learning. While FEMA offers numerous training courses, workshop participants called for increased accessibility through streamlining to reduce associated cost and time commitment. FEMA could also formalize and strengthen other forms of professional development across the field, including coaching and mentorship, hackathons and innovation challenges, job shadowing, and online learning communities. Several workshop participants noted that refining the bounds of emergency management may allow the profession to lean further into its strengths while managing mission creep. There may be additional opportunities for FEMA to develop systems that emphasize unique benefits of the field, including its purpose, variability, travel, and teamwork.

Disseminating emergency management capabilities across public and private organizations could improve workforce efficiency and bring a broader range of expertise to bear. While some workshop participants emphasized an opportunity to redefine the boundaries of emergency management, others outlined an opportunity to further disseminate the work that FEMA and SLTT partners are currently leading. In a world of increasing disaster prevalence, the work portfolio of emergency managers across scales will grow exponentially. Integrating response, recovery, and resilience across government and the private sector could enable interdisciplinary stakeholders to leverage their own relationships and expertise in managing the emergencies of tomorrow. To facilitate this change, FEMA can support the development of emergency management skillsets across disciplines and sectors. Targeted trainings, cross-sector detail opportunities, and multidisciplinary collaborative initiatives can disseminate foundational emergency management competencies while developing partnerships and fostering understanding of the capabilities and limitations of various actors.



Questions to Consider

- How can the emergency management enterprise increase the visibility of its successes and better market the profession to attract new talent?
- What structural changes could transform the emergency management profession into a desirable lifelong career for more workers?
- What knowledge, skills, and tools will emergency managers need to effectively navigate future threats and community needs? How is this different across levels of government and industry?
- How can emergency management organizations expand the integration of different professional, geographic, and cultural backgrounds into the workforce to better support the emerging needs of diverse communities across the nation?



A future of social fragmentation will demand new approaches to cultivating community, trust, and self-sufficiency that enable response, recovery, and resilience.



**20
50**

**Strategic
Foresight
Initiative**

Theme 5

Trust is the glue that binds communities together, enabling the cooperation and mutual support necessary to overcome adversity. In a future characterized by growing isolation, polarization, and contested information, emergency managers will be challenged to support the whole of society in preparedness efforts. By leading with humility, developing enduring relationships, and investing in readiness across scales, FEMA can support communities in leveraging available resources and fostering connection to prepare for the disasters of tomorrow.

5.1 Current Trends

Public trust in the federal government has steadily declined since the turn of the century, with 2023 marking a near record low. Fewer than 20% of Americans report “trusting the federal government to do the right thing almost always or most of the time”³² and recent research suggests that Gen Z, or those born in the late 1990s and early 2000s, mistrust most social and political institutions.³³ Growing abundance and sophistication of contested information may contribute to a culture of universal skepticism. This trend holds important implications for emergency management, as trust is foundational to effective response. Notably, trust cannot be built quickly in a moment of crisis. Rather, it requires cultivation over time through consistent engagement, transparency, and demonstrated reliability. Trust in state and local government, however, is higher on average than trust in the federal government, creating opportunities for local emergency managers to more effectively build relationships with those they serve.³⁴

Americans are increasingly polarized and disconnected from civic life, complicating efforts to build consensus around resilience. Social divides on a wide range of topics have grown considerably in the last two decades, indicating growing polarity among the Nation’s public.³⁵ Furthermore, Americans are less likely than ever to join together, with fewer than two in ten people participating in community groups like neighborhood associations (15%), sports leagues or workout groups (10%), and parent groups or youth organizations (16%).³⁶ Increasing dissatisfaction with democracy and widening trust gaps may contribute to skepticism of institutions and peers.³⁷ With polarization and disconnection on the rise, ³⁸ mass protests, civil disobedience, and divisive rhetoric over social media may responsively increase, creating a feedback loop as these phenomena can further community divides.

³² [“Public Trust in Government: 1958-2024.” 2024. Pew Research Center \(pewresearch.org\).](#)

³³ [“Gen Z Voices Lackluster Trust in Major U.S. Institutions.” 2023. Gallup \(gallup.com\).](#)

³⁴ [“Americans’ Views of Government: Decades of Distrust, Enduring Support for Its Role.” 2022. Pew Research Center \(pewresearch.org\).](#)

³⁵ [“Update: Partisan Gaps Expand Most on Government Power, Climate.” 2023. Gallup \(gallup.com\).](#)

³⁶ [“Disconnected: The Growing Class Divide in American Civic Life.” 2024. The Survey Center on American Life \(americansurveycenter.org\).](#)

³⁷ [“Rising Dissatisfaction with Democracy in High-Income Nations.” 2024. Pew Research Center \(pewresearch.org\).](#)

³⁸ [“Our Epidemic of Loneliness and Isolation.” 2023. U.S. Public Health Service \(hhs.gov\).](#)

Patterns of disconnection and polarization extend to public institutions, challenging efforts to reach consensus in decision-making bodies, and limiting the capacity for broadly supported forward movement at any government scale. For emergency managers, these trends may slow or stagnate efforts to build legitimacy around pathways to resilience, including in land use, building code, public works, and floodplain management sectors.

Widespread loneliness and social isolation create challenges in preparedness, response, and recovery. While mistrust in government grows, more than 70% of Americans additionally feel that interpersonal connection has worsened over the past 20 years. In 2021, twelve percent of Americans said that they have no close friends and 49% reported having three or fewer close friends.³⁹ The implications of these trends were underscored by a 2023 U.S. Surgeon General Advisory that named an epidemic of loneliness and social isolation, outlining a wide range of cascading negative impacts.⁴⁰ Further, the factors that facilitate or become barriers to social connection can reinforce either a virtuous or vicious cycle in emergency management. Disconnected community members are more at risk during a disaster, while improved neighbor-to-neighbor relations can support emergency management objectives as community members check in on each other, share resources, and support do-it-yourself rebuilding efforts.

5.2 Findings

The future holds potential for governmental distrust driven by dissatisfaction, with significant implications for emergency managers. Workshop participants noted that the growing prevalence of services built around rapid gratification is shifting expectations of emergency managers. As commercial supply chains and communication platforms allow people to access information, goods, and services faster, the demand for government programs to keep pace is increasing. This creates a negative feedback loop, where the inability of emergency managers to meet the public's high expectations decreases trust, thereby further degrading their ability to operate efficiently. This dynamic is amplified by the relative inflexibility of government programs that are built upon strict authorities and funding. Declining discretionary funding and changes in agencies' regulatory authorities may slow decision-making regarding the allocation of emergency management resources, including FEMA's grant programs.

Growing prevalence of contested information could further degrade social trust and cohesion, complicating emergency response. In parallel with the growing complexity, impact, and frequency of natural disasters, nation-state threats are also increasing, further challenging readiness nationwide. Foreign adversaries are increasingly taking advantage of disasters to distribute false information, sowing confusion and disrupting response and recovery. Workshop participants reflected that such incidents in their communities have undermined government communication efforts, increasing risk for civilians during hazardous events and, ultimately, eroding trust in emergency management.

³⁹ [“The State of American Friendship: Change, Challenges, and Loss.” 2021. Survey Center on American Life \(americansurveycenter.org\).](https://americansurveycenter.org/research/the-state-of-american-friendship-change-challenges-and-loss/)

⁴⁰ [“Our Epidemic of Loneliness and Isolation.” 2023. U.S. Public Health Service \(hhs.gov\).](https://www.hhs.gov/press/2023/spe-001)

Participants noted that the evolving cyber threat landscape could create an increasingly challenging environment for local emergency managers, who may be expected to navigate contested information while managing the physical and social consequences of cyberattacks, at times in tandem with traditional disaster response. This will be exacerbated by the growing Internet of Things where previously analog systems used to control functions at ports, wastewater treatment plants, and substations will be exposed to cyberattacks.⁴¹ These dynamics will continue to blur the lines between the private and public sector, national security and homeland security, and emergency management and infrastructure protection—necessitating greater information sharing and cross-sectoral trust.

Compounding drivers of change may increase civil unrest. Growing mistrust in institutions, polarization, and chaos tied to frequent cyber-attacks may lead to increased grassroots activism, and in some cases civil unrest. Other factors such as growing resource scarcity, emotional isolation, and fiscal instability may further amplify this trend. Grassroots action can serve as a powerful expression of local resilience, demonstrating communities’ ability to mobilize and address issues that matter most to them. However, an atmosphere of contested information, polarization, and mistrust can amplify tensions. Concern for the potential emergence of civil unrest was widespread among workshop participants, who also raised questions about emergency management’s role in responding to this type of activity. While the impacts of unrest can harm communities, they are often hard to quantify and may not be physical in nature, which limits FEMA’s ability to act. These discussions represented a wider unease expressed across workshops about the precarious nature of the social contract that supports emergency management and public safety.



“You can’t emerge as a trusted voice at the apex of a crisis; you have to be a recognized voice in the community.”

- SLTT Emergency Manager, June Workshop Participant

5.3 Opportunities to Explore

To avoid a future of growing disconnection, confusion, and chaos, FEMA can promote best practices to foster trust across scales. Resilience is necessarily a shared project, and individual, community, and institutional trust are all important tenets of its successful implementation. While addressing declining trust at a societal scale is beyond FEMA’s capacity, emergency managers can implement best practices to build towards trust within our purviews. Trust is built on consistent responsiveness and accountability, which are underpinned by systems for tracking needs, framing actions, and managing performance. As emergency managers continue to navigate growing work portfolios and strained resources, telling the candid story of our capacity and limitations may improve perceptions of reliability and trust. At the local scale, maintaining a consistent community presence may support local emergency managers in developing enduring relationships, supporting effective communication

⁴¹ [“Internet of Things” National Institute of Standards and Technology \(nist.gov\)](https://www.nist.gov)

and response in times of crisis. In some cases, FEMA may be able to support local investment by providing frameworks, platforms, or funding for SLTT-driven resilience approaches that are co-created and adaptively implemented with community members. Further, FEMA can continue to communicate transparently about the systems it employs to remain accountable and reliable.

FEMA can drive a broader understanding of preparedness that supports holistic self-sufficiency and local interdependence. Growing evidence suggests that people prepare for, respond to, and recover from natural hazards more quickly in communities where neighbors know one another and are connected to local institutions.⁴² Because of their physical proximity, neighbors often respond to disaster situations before trained emergency professionals, and local organizations or coalitions can often augment such community-based support to address suffering in the wake of a disaster.⁴³ FEMA can amplify emergent resilient behaviors by investing in enduring systems of mutual aid and communal support and formally recognizing and rewarding examples of local leadership. Workshop participants agreed that the increasing federalization of disaster management is unsustainable in a future of increasing risk and, ultimately, hinders the advancement of local capacity. In addition, workshop participants called for a more expansive approach to disaster readiness education that encourages integrated self-sufficiency. This could include fostering a sense of personal responsibility, resourcefulness, and financial savvy, incentivizing the development of local sustainable systems for food production, energy use, and resource management, and providing training on a broad set of practical skills (e.g., survivalism, small-scale agriculture, food preservation, material repair, and basic health care).

Amid a sea of information, FEMA can serve as a trusted voice, providing communities with tools to separate the signal from the noise. Accurate, transparent, and frequent information-sharing supports community members in making informed decisions in times of crisis. Local emergency managers have a critical role to play as trusted leaders, helping their communities navigate complex information environments and contextualize risk. To bolster this capability, FEMA can support local leadership in fostering blue-sky relationships in their communities through resilience grants and preparedness initiatives. In an era of increasing geopolitical tensions, U.S. adversaries will continue to exploit disasters as opportunities to spread false information, sow discord, and inflict harm. Amid this complexity, FEMA can promote the reliability of community leaders by strengthening connections to established information resources. Examples of this may include ensuring information synthesis capacities of the National Response Coordination Center reflect community needs, and further supporting fusion centers, which facilitate intelligence sharing among government and private sector partners. In times of disaster, the Incident Management workforce is the face of FEMA for survivors. To serve as a trusted voice, FEMA can ensure this workforce has the necessary tools and training to

⁴² [“Enhancing Community Resilience through Social Capital and Connectedness: Stronger Together!” 2021. The National Academies of Sciences, Engineering, and Medicine \(nationalacademies.org\).](https://www.nationalacademies.org/2021/04/enhancing-community-resilience-through-social-capital-and-connectedness-stronger-together/)

⁴³ [“Social Capital and Community Resilience.” 2014. Daniel P. Aldrich and Michelle A. Meyer \(sagepub.com\).](https://www.sagepub.com/2014/04/social-capital-and-community-resilience/)

hear and respond to community concerns, efficiently provide assistance, and effectively tell the story of FEMA's mission.



Questions to Consider

- What concrete actions can you and your local leaders take to foster increased community connection? How can FEMA meaningfully support positive interdependence?
- How has preparedness messaging resonated in your community? What role should self-sufficiency play in preparedness and what can you do as an emergency manager to enable it?
- What underpins trust in your community? How can your organization maintain transparency, responsiveness, and accountability in the face of increasing risks?
- What tools do you need to better contextualize risk and steer your community through complex information? Are your structures for sharing information across organizational lines working to their full potential?

Conclusion

FEMA's Strategic Foresight 2050 initiative highlighted the uncertainty faced by the field of emergency management, while also identifying actions that could generate benefits regardless of what the future holds. The themes that emerged represent cross-cutting features of the continually evolving emergency management enterprise. While informative, these bodies of findings are not prescriptive; rather, as summarized in the figures below, each theme hinges on a core tension. These tensions each present a decision space — a spectrum of interventions and responses to address conflicting priorities. The implementation of the ideas presented in this report will vary depending on the context and scale of their application. To successfully meet the disaster landscape of tomorrow, we will need a diversity of answers.

Theme 1: Whole of Society Approach to Building Resilient Communities



Findings highlighted a core dichotomy within emergencies. On one hand, disasters represent a destructive force that damages property and livelihoods, disrupts critical government functions, and exacerbates the vulnerability of disadvantaged communities. At the same time, disasters can create opportunities to rebuild stronger, capitalize on new ideas and new technologies, reinvest in planning and infrastructure, and increase the resilience and self-reliance of communities. **Emergency management of the future calls for compassion and repair in the face of unimaginable loss along with activation towards building new, more resilient communities.**

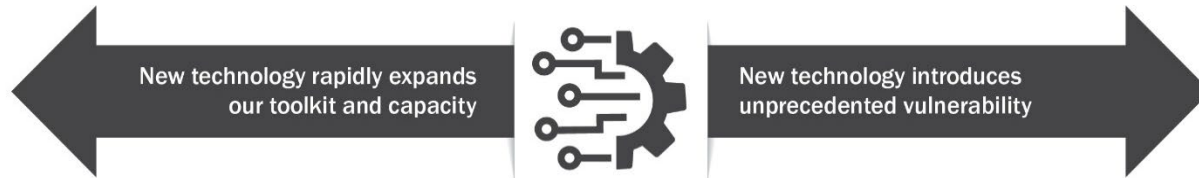
Theme 2: Flexible Emergency Management Built on Persistent Partnerships



Amid growing complexity, findings reflected both a need for increased federal leadership and a need for a whole-of-society approach to emergency management. There is ample demand to increase local capacity for hazard mitigation to grow flexibility, response capabilities and resilience at the community level. It is evident that the federal toolbox is not well suited to address all challenges, and private and local partners have an increasingly important role to play in emergency management of the future. Simultaneously, the growing frequency and magnitude of disasters makes FEMA's leadership and resources more important than ever. **In the emergency landscape of tomorrow,**

emergency managers are called to differentiate between opportunities for increased federal leadership and opportunities for increased local, private, and non-governmental power.

Theme 3: Use Technology to Solve the Right Problems



Emerging technologies provide new tools, enhancing access to information, increasing efficiencies, and empowering communities. Such change will amplify response capacity, allowing emergency managers to secure community safety more quickly and comprehensively before, during, and after disasters. At the same time, technological development presents new vulnerabilities for the Nation's public. Bad actors are likely to capitalize on advancements, creating new emergency scenarios and amplifying risk through traditional disaster response. Simultaneously, new technologies will not necessarily be accessible to all, raising concerns about growing technology dependence exacerbating vulnerability in already disadvantaged communities. Human connection remains a core tenant of emergency management, and navigating the technology landscape of tomorrow will require holistic perspective. **While advancement will supercharge our capacity, not all problems will have technological solutions.**

Theme 4: Creative Transformation of the Workforce



Amid growing complexity in disasters, emergency management is concurrently adapting to a changing resource landscape. Increasing scarcity in discretionary funding and traditional workforce availability will require a multi-pronged approach to developing necessary skillsets and capacities. While findings emphasized a widespread desire to further professionalize the field of emergency management, establishing a delineated body of practice, a call to expand the traditional boundaries of the field and workforce was simultaneously reflected. **To ensure a ready workforce, emergency managers of tomorrow will need to consider opportunities to augment traditional skillsets in partnership with opportunities to integrate new capacity and expertise.**

Theme 5: Cultivating Community, Trust, and Self-Sufficiency



While disasters grow more frequent and severe, the Nation is becoming increasingly fragmented. Growing mistrust of government, increasing prevalence of false information, and growing polarization among the public are complicating emergency response. Networks amplify safety, and communities are increasingly disconnected Nation-wide. Meanwhile, demand for support is increasing in tandem with intensifying emergencies and risk, testing federal capacity to meet communities' needs.

Managing tomorrow's emergencies will require fostering connectedness and self-sufficiency at the local scale, while also identifying when and how to deliver targeted federal support.

The themes and specific points of tension that emerged from FEMA's Strategic Foresight 2050 initiative represent key focal points for strategic planning. By considering the current trends, findings, and opportunities included in this report, emergency managers can thoughtfully prepare for an uncertain future.



FEMA