

FUNDING SMARTER, NOT HARDER

Advancing Equitable Outcomes for Underserved Populations



Horse Creek rural school in Western North Dakota (Kidd, 2022)

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About this Report

This report is one of seven reports produced as part of a semester-long, innovative problem solving engagement between FEMA Region 8 and North Dakota State University's Emergency Management Academic Program. Each report in this series addresses a specific problem statement presented by FEMA Region 8 problem sponsors. These problem statements represent challenges that have been identified across the emergency management practice spectrum.



NDSU offered the model interdisciplinary course focused on innovative problem solving for FEMA in partnership with Daniel Green, Resilience Analyst in National Preparedness from FEMA Region 8. The goal was to bring the perspectives and insights of next generation leaders to current challenges facing emergency management practice from a federal perspective. Student teams worked with their problem sponsors and subject matter experts to understand and contextualize the problems. The data collected from interviews, coupled with an understanding of the existing literature, allowed the teams to develop and test solutions within a systems thinking framework, and offer specific insights and recommendations.

The teams approached problem solving from a research and development approach, similar to the approach used by the Pentagon's Defense Advanced Research Projects Agency (DARPA). Using a Pasteur's Quadrant perspective (a use-inspired basic research approach) allowed the teams to seek a fundamental understanding of the problems they were addressing with a focus on dynamic solutions. This approach required a grounded understanding of the problem, and the context and systems within which it exists. The solutions offered often pushed beyond existing programs and workflows.

NDSU's evaluation of this model course's development and delivery is supported, in part, by a research award from FEMA's Higher Education Program. NDSU faculty, Drs. Carol Cwiak and Caroline Hackerott, will supply the entirety of the materials used in the model course as part of the evaluation to encourage other emergency management higher education institutions to engage in similar partnerships. It is envisioned that this model course can be used with partners at all government levels and across a variety of sectors to bring new perspectives to enduring challenges.

NDSU would like to thank the FEMA Region 8 problem sponsors, as well as all the emergency management and partner agency subject matter experts who graciously shared their time, energy, expertise, and guidance. In particular, the team thanks Daniel Green, who brought this opportunity to NDSU and fueled the faculty, students, and problem sponsors with a level of vision, commitment, and enthusiasm that set the tone for the entirety of the experience.




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Executive Summary



Funding Smarter, Not Harder explores the struggle of using publicly available datasets to increase equitable aid distribution to underserved populations. The NDSU team, through interviews and research, discovered historical and contextual problems that lie outside of datasets already available. The problem quickly moved from being oriented in data, toward understanding and contextualizing vulnerability.

The issue of equitable aid distribution was recognized as something that cannot be immediately solved through data, because human beings are not datasets and vulnerability is not a simple concept. This shift in understanding the problem significantly expanded the scope and exposed numerous root causes that can contribute to disparities in aid distribution throughout Region 8.

This report addresses a layered, multi-dimensional approach model to conceptualize the factors that create vulnerability and the challenges involved in providing equitable aid. Specific recommendations focused on locally based approaches supported by the federal government are offered.

Problem Statement

EMGT 491/690
INNOVATIVE PROBLEM SOLVING FOR FEMA

FUNDING SMARTER, NOT HARDER

CHALLENGE

FEMA Region 8 needs a way to evaluate the best uses of publicly available datasets to understand the delivery of federal programmatic assistance in order to evaluate its effectiveness in supporting historically underserved communities in Region 8.

BACKGROUND


Delivery of FEMA disaster assistance in the aftermath of a disaster can have lasting impacts on individual and community recovery. Underserved and underrepresented communities often face challenges in recovery from disasters, meaning that FEMA assistance is crucial to ensuring a new normal is achieved. Without the ability to understand historical spending by FEMA, and if disaster assistance has reached the communities most in need of these funds, it is hard to understand if FEMA is delivering assistance equitably.



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Senior Leader: Ryan Pietramali, Recovery Division Director



Introduction



Funding Smarter, Not Harder explores the struggle of using publicly available datasets to measure the extent to which equitable aid distribution is reaching underserved populations (particularly through recovery aid programs). The NDSU team, through interviews and research, discovered historical and contextual problems that are not captured in the datasets currently available and concluded that the measurement of aid cannot be conducted accurately without clarity about what constitutes an underserved population. The problem analysis quickly moved from evaluating what the best dataset was, to examining the factors and characteristics that create and perpetuate underserved populations.

It became clear in addressing this problem that a fundamental failure of understanding exists in efforts that seek to measure effectiveness through existing datasets; specifically that humans are dimensional and thus not easily or accurately reduced to datasets. The dataset needed to measure the extent to which aid is distributed equitably does not presently exist.

The NDSU team conducted a series of interviews with subject matter experts from the private, public, and non-profit sectors to better understand the scope of the issue. Common connecting themes, such as equity, vulnerability, intersectionality, and barriers to accessing aid, emerged in these interviews. The rural nature of FEMA Region 8 and local capacity and capability issues were addressed as complicating factors.

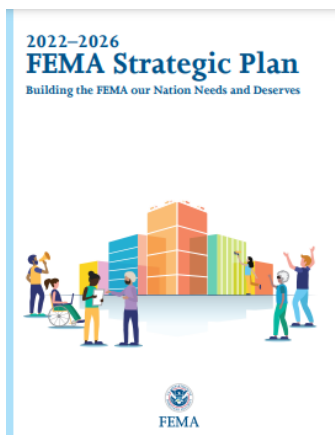
It became clear that effectively serving underserved populations (and being able to ultimately measure that service) must start with understanding the ways in which vulnerability exists, is exacerbated, and defies simple assessment. These are key factors that create and perpetuate inequity. This report covers these topics and provides recommendations with the intent of helping to advance equitable outcomes for underserved populations.

Understanding and Contextualizing the Problem

Inequalities and inequities have always been a part of society. In recent years, the focus on dedicated initiatives addressing inequities related to disparities in disaster outcomes has increased. The United States Government through intergovernmental engagement on specific initiatives has set the tone for significant efforts toward advancing equitable outcomes. FEMA's intent to instill equity as a foundational premise for emergency management practice is another avenue by which equity initiatives are being furthered. In this section, topics relevant to understanding equity, vulnerability, and underserved populations are addressed to help illustrate the extent of the layered complexities inherent in advancing these types of initiatives.

Government Initiatives

The United States Government has acknowledged and addressed the distinct inequalities that exist within our country, highlighting the vulnerabilities that disproportionately affect those who are already marginalized in society. The United States Strategic Plan, *All In*, was put into place initially to prevent and end homelessness, but deeper than that, it puts into place better practices from an intergovernmental standpoint. *All In* ensures that states and local jurisdictions can build systems to fight and end homelessness by using local and systems-level planning. *All In* is based on equity, evidence, and collaboration, implemented to emphasize federal agency cross-communication; it also focuses on increasing access to housing, health, security, and stability (USICH, 2022).



FEMA's 2022-2026 Strategic Plan similarly focuses on the intent and practices that underlie *All In* by diving deeper into the concept of equity in the context of emergency management as well as discussing the looming challenge of Climate Change and its impacts in meeting the agency's larger goal of resilience.

FEMA's Strategic Plan is separated into three goals;

1. Instill Equity as a Foundation of Emergency Management,
2. Lead Whole Communities in Climate Resilience, and,
3. Promote and Sustain a Ready FEMA and Prepared Nation (2022).

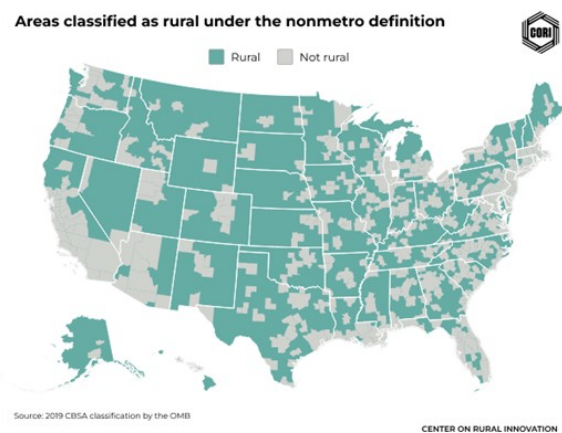
These goals help clarify and focus FEMA's mission to address the complexity of disasters through intergovernmental and community engagements using an equitable lens as a foundation. This equitable lens challenges FEMA and its partners to better identify, understand, and meet the needs of underserved populations. FEMA has historically struggled with measuring whether it has distributed disaster aid equally to these populations.

Objectives 1.2 (*Remove Barriers to FEMA Programs Through a “People First” Approach*) and 1.3 (*Achieve Equitable Outcomes for Those We Serve*) of the FEMA Strategic Plan are focused on ensuring FEMA resources are both meeting the needs of underserved populations and breaking down barriers that have historically affected these populations’ access to federal aid (FEMA, 2024a). Subject matter experts interviewed about service and aid to underserved populations emphasized the endemic nature of inequities based in large part to deep trust barriers that exist between some of the underserved communities and the federal government. Due to this, communities that are in most need of disaster recovery aid are often fearful or unwilling to go through the federal processes to apply.

While FEMA acknowledges the current challenge of addressing societal inequities and the increasing exposure of underserved communities in the face of more frequent and severe hazard events, successfully defining these populations and the ways in which they can be reached is not a simple endeavor. FEMA likewise acknowledges in the Strategic Plan that there is a deep need for growing capacity and capability within the federal government to “conduct ongoing equity-based evaluations across its programs.” This is important to understanding the agency’s progress in meeting its objectives, but misses the most significant problem FEMA faces in its efforts to reach underserved populations—deficits in capacity and capability at the local level. The local level is where all the community-centric emergency management engagement efforts take place (Cwiak & Butterfass, 2024), and where the funding distribution process occurs after a disaster.

Rural Communities

Region 8 encompasses six largely rural states (Colorado, Utah, Wyoming, Montana, South Dakota, and North Dakota) and 29 federally recognized tribes. The Office of Management and Budget uses nonmetro areas to define rural areas (Center on Rural Innovation, 2022). According to this definitional framing, the estimated rural population sits at approximately 46 million people, (Center on Rural Innovation, 2022) which according to the U.S. Census Bureau (2023) is roughly 14% of the current U.S. population of 335 million (Cwiak & Butterfass, 2024). Emergency management practice in rural areas is fundamentally different than practice in urban areas based on factors such as: population demographics and distribution; differing access to individual and community capital; aging infrastructure; limited response services; agricultural and livestock land use; environmental and community preservation concerns; economic development challenges; lower internet access rates; fewer educational institutions; larger food and health deserts; and, lack of capacity and capability (Cwiak & Butterfass, 2024; National Academies of Sciences, Engineering, and Medicine, 2018; NCSL, 2020). This combination of factors and the “geographic realities” in Region 8 create a different construct for rural emergency management practice (Cwiak & Butterfass, 2024).



Rural communities are an important part of the identity and economic makeup of Region 8, but by their very nature have underserved populations and lack the emergency management capacity and capability to focus on building resilience (Cwiak & Butterfass, 2024). This can result in disproportionate rural disaster outcomes that further exacerbate issues already present in rural areas. The national system built to bolster effective emergency management practice, has struggled to create robust emergency management frameworks in rural areas and this leaves millions of Americans in harm's way (Cwiak & Butterfass, 2024; Manuele & Haggerty, 2022).

Capacity and Capability

In rural communities, local emergency management capacity and capability is a significant challenge. Capacity is the personnel, resources, and equipment needed to manage emergency management responsibilities, while capability is “the knowledge and skill required to accomplish the necessary tasks within the breadth of the emergency management scope of responsibility” (Cwiak & Butterfass, 2024). In the discussion of equitable distribution of aid and addressing the needs of underserved populations, it is essential to understand the challenges that exist for local emergency managers and their ability to facilitate these recovery processes. Rural communities lack the resources that an urban counterpart can provide, including fewer dedicated government positions, less financial support, and equipment limitations; these differences coupled with the rural construct for emergency management practice create strain on the ability to effectively deliver services at the level needed (Cwiak & Butterfass, 2024).

There appears to be a disconnect with state and federal agencies, lawmakers, and elected officials regarding the exigency and implications of the rural capacity and capability deficit. This lack of capacity and capability will severely limit the way rural communities can respond to, and recover from, disasters. This deficit can have profound implications that extend beyond loss of life, livelihoods, and quality of life in areas that are already facing additional vulnerabilities. Rural communities support our country's manufacturing and food production needs (Alijore & Willingham, 2020). Family farms and ranches in rural areas account for “90% of total agricultural production value” in the United States (American Farm Bureau Federation, 2024). Impacts in rural communities can affect national resilience efforts.

Underserved and Marginalized Populations

FEMA defines underserved populations as “Groups that have limited or no access to resources or that are otherwise disenfranchised. These groups may include people who are socioeconomically disadvantaged; people with limited English proficiency; geographically isolated or educationally disenfranchised people; people of color as well as those of ethnic and national origin minorities; women and children; individuals with disabilities and others with access and functional needs; and seniors” (FEMA, 2023). While agencies, organizations, and scholars may have varying definitions of the term *underserved populations*, the essence remains the same: there are disparities in these populations due to systemic barriers that hinder their ability to access resources, healthcare, education, housing, and other essential services.

Marginalization, while a factor in underserved populations, is distinct in that it addresses a state of diminished power in a population due to the direct or indirect relegation of certain individuals and populations as unimportant or powerless within society (Pratt & Fowler, 2022). Marginalization results in the needs of individuals and specific populations being treated as less important (Pratt & Fowler, 2022). Marginalization is a complex topic that is interwoven with societal injustices and historical disparities embedded in the history of our country. Those who are marginalized, regardless of where they live, are typically recognized as underserved and more vulnerable by virtue of that marginalization. For the purposes of this discussion, marginalized populations are presented as a de facto underserved population.

Underserved populations experience disasters differently and have poorer outcomes (Cwiak, 2023; Nojang & Jensen, 2020). They also have greater difficulty adapting and resuming social and economic life after a major event (Cordona et al., 2012; FEMA, 2023). Underserved populations in rural communities face layered difficulties due to limited access to healthcare, economic disadvantages, educational barriers, transportation challenges, and technology divide present in their communities (Cwiak & Butterfass, 2024; Mitchell, 2020; Rural Health Information Hub, 2022).

Underserved populations vary from community to community, making it particularly difficult for a federal agency to successfully identify and assist them. Identifying and addressing the specific and unique needs of underserved populations is most adeptly achieved at the local level. At this level there is a better understanding of the specifics of the community composition and the trusted partners with histories of engagement with these populations (Barbelet, 2018).

Vulnerability

Vulnerability is a dynamic concept that is shaped by place, knowledge, resources, health and physical ability, social networks, and other socially-constructed factors. Hazard and disaster researchers have focused a great deal of effort on identifying, measuring, and informing vulnerability reduction over the past few decades (for example: Birkmann & Wisner, 2006; Blaikie et al., 2014; Bolin & Kurtz, 2018; Cutter, 1996; Cutter et al., 2012; Donner & Rodríguez, 2011; Flanagan et al., 2011; Fordham, et al., 2013; Hoffman et al., 2009; Kuran et al., 2020; Kadetz & Mock, 2018; McEntire, 2008; Rodríguez et al., 2007; Wood et al., 2021). Vulnerability is challenging to define consistently or holistically as it is not a fixed state and cannot be easily narrowed down. Instead, it is fluid and “defined by timing, the hazard at hand, circumstances, and access to different types of capital” (Donner & Rodríguez, 2011; Flanagan et al., 2011; Hoffman et al., 2009).

Vulnerable populations have a higher risk of experiencing negative effects and poor outcomes in a disaster. They often have a much lower likelihood of receiving disaster warnings, less ability to evacuate, and less ability to access post-disaster aid (Rural Health Hub, 2022; SAMSHA, 2017; Wisner et al., 1994). Vulnerable populations also have trouble interacting with governmental systems, increasing barriers to accessing disaster assistance (SAMHSA, 2017).

There are also drivers of vulnerability that must be acknowledged and addressed in working toward widespread resilience and equity following a disaster. Global drivers such as population growth, rapid urban development, increase in socioeconomic disparities (shrinking middle class), and failures within the government are all contributors to deep-rooted vulnerability (Cardona et al., 2012; Cwiak & Butterfass, 2024; Kaufman, 2019; Rural Health Hub, 2022; Siller & Aydin, 2022). There will always be some groups who are fundamentally more vulnerable in a disaster than others based on their dependencies. For example, those with functional and access needs and those who are dependent on assistance from devices or other medical personnel to survive are far more likely to be seriously affected by disaster and are the least likely to recover without proper support (SAMSHA, 2017; Flanagan et al., 2011). Understanding the dimensions of vulnerability at the local level and the populations most in need of assistance can help focus emergency management efforts across the phases.

Intersectionality

The concept of intersectionality provides insight into the ways in which various factors intersect and interact to shape individuals' experiences and the decisions they make before, during and after a disaster. Intersectionality seeks to emphasize the different dimensions of individuals, and how identity, such as race, age, gender, class, etc., influence an individual's vulnerability, experiences, perspectives, and ability to access resources and knowledge (Crenshaw, 2017; Donner & Rodríguez, 2011; Siller & Aydin, 2022). As can be seen in Wheel of Intersectionality (John Hopkins Diversity Leadership Council, n.d.), the extent to which these dimensions can create variance in human beings and their behavior can be expansive.

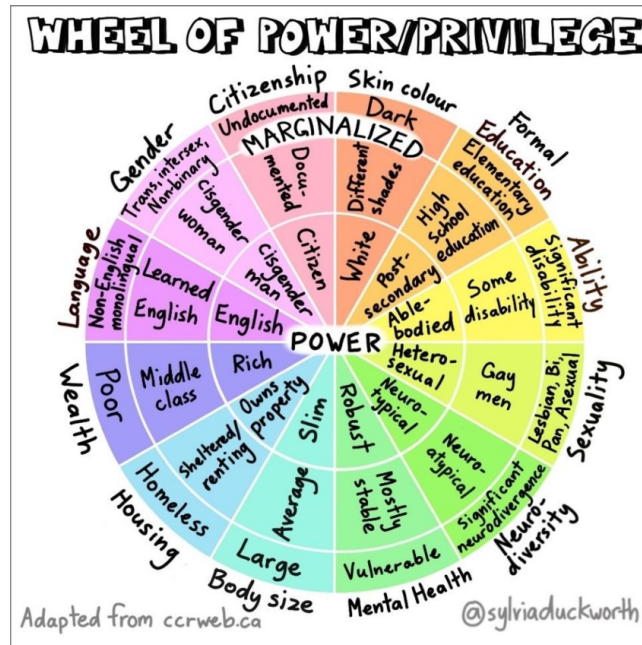


Wheel of Intersectionality

The intersectional nature of human beings is extremely important to understand and acknowledge when discussing equitable aid distribution and the effectiveness of data sets. Humans are not datasets. There will never be a perfect system that encompasses the dynamic phenomenon of intersectionality, as it is a layered identity that helps provide insight into vulnerability and marginalization and defies simple deconstruction or succinct categorization (Cwiak, 2023b; Kadetz & Mock, 2018; Kuran et al., 2020).

However, intersectionality can provide insights about ways in which similar socio-demographic groups interact with societal processes to create marginalization (Kuran et al., 2020). Understanding marginalization from an intersectionality perspective allows for a clearer understanding of where inequity is societally rooted and where local emergency managers and community partners can connect to help ensure improved outcomes.

The Wheel of Power/Privilege (Duckworth, nd), provides a simple illustration of the ways in which an individual may experience multiple forms of marginalization at the same time, some outwardly visible and some not, all which can have a differential impact on the ability to access resources (Crenshaw, 2017). As the characteristics of the individual move away from the center they are less powerful and more likely to be marginalized.



The Pressure and Release Model (PAR)

The Pressure and Release (PAR) Model, is a multi-dimensional model that seeks to illustrate how wider social, economic, and political conditions create vulnerability that is further exacerbated by a disaster (Blaikie et al., 1994; Alexander, 2000). This model provides a useful framework for breaking down the interconnected complexities that contribute to disaster risk and is designed to be applied and adapted with specificity to several different levels of analysis and community types. The PAR model, like intersectionality, illustrates the more dynamic realities of layered vulnerabilities.

This model uses root causes, dynamic pressures, and unsafe conditions to illustrate the dimensions that shape the progression of vulnerability. It is the progression of vulnerability that meets the hazard event and defines the disaster impacts. The PAR Model is used in this analysis for the purposes of understanding individual vulnerability, but it can also be used to understand community level vulnerability.

Root Causes

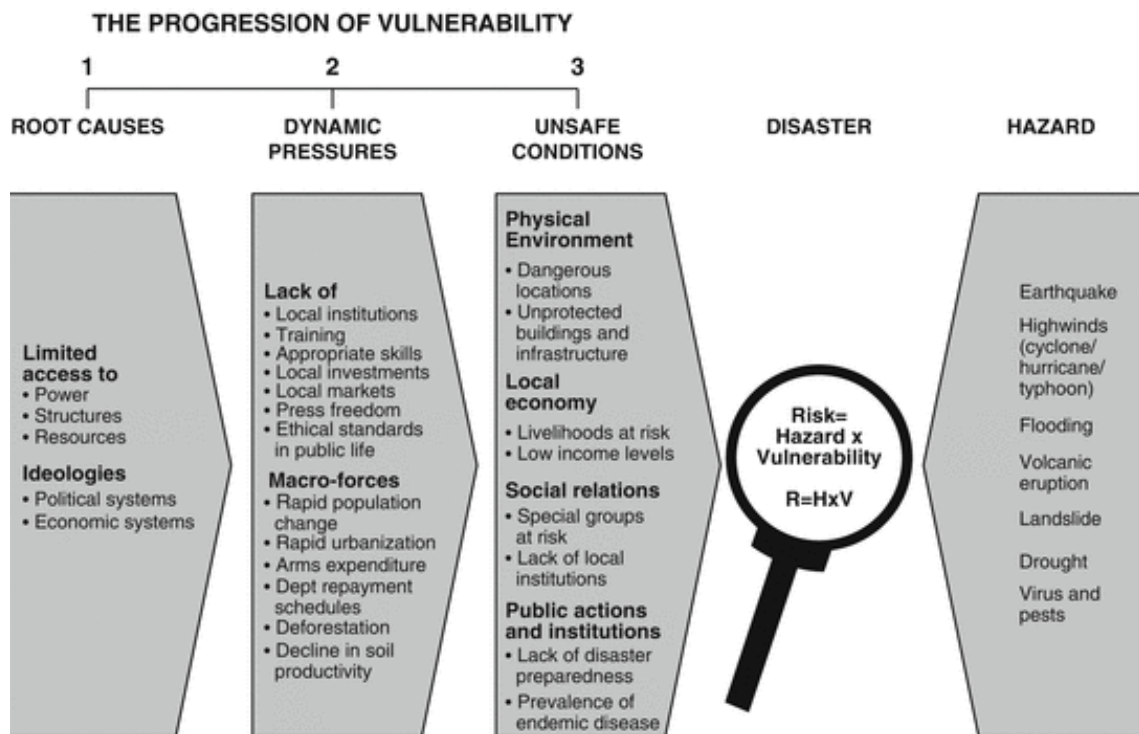
Root causes reflect the “exercise and distribution of power in a society” (Wisner et al., 1994). This segment of the model focuses on interrelated processes within government systems and society that create the initial conditions for vulnerability (Wisner et al., 1994). Those on the fringes of the ideological political and economic systems are typically limited in their ability to access power, structures, and resources which results in the initial layer of vulnerability.

Dynamic Pressures

Dynamic pressures are the processes and activities that “translate the effects of root causes both temporarily and spatially into unsafe conditions” (Wisner et al., 1994). These are the manifestations of the general underlying economic, social and political patterns. These pressures illustrate the ways in which larger systems generate vulnerability.

Unsafe Conditions

Unsafe conditions are the “specific forms in which the vulnerability of a population is expressed in time and space in conjunction with a hazard” (Wisner et al., 1994). These conditions are dependent upon the initial level of well-being of individuals and how this level varies in the context of the disaster. This can be assessed by looking at a pattern of access to tangible resources (food, water, shelter, etc.) and intangible resources (networks of support, knowledge of sources of assistance and how to apply, ability to function in a disaster, etc.) (Wisner et al., 1994; Cardona et al., 2011). Unsafe conditions also encompass several other factors such as the physical environment, local economy, social relations, and the public actions of those in authority and major institutions (Wisner et al., 1994).



Pressure and Release Model (Wisner et al., 2004)

Application of the Model

The PAR model is helpful in that it analyzes the underlying pressures and vulnerabilities a community with a recognition of the ideological elements of governance that contribute to, rather than reduce, vulnerability. In examining root causes, dynamic pressures, and unsafe conditions in the more linear progression shown in the model, it is easier to understand generally how vulnerability is exacerbated in society. This can provide an opportunity to attempt shifts in political and economic systems to address the root causes where vulnerability is initially fostered.

At the individual level, the PAR model struggles. The model is complex and can be difficult to put into practice, especially if there is a lack of knowledge and resources available and it does not fully account for the cultural and contextual differences that impact disaster risk (Wisner et al., 1994; Cutter et al., 2008). Vulnerability builds upon itself as the model progresses creating a deeper chasm as it goes. This layering can make it difficult to fully understand the extent of vulnerability or the approaches that can successfully remediate it. At the individual level, the model emphasizes the importance of community engagement, vertical and horizontal integration, and the development of capacity and capability (Wisner et al., 1994; Cutter et al., 2008; Twigg, 2004).

Equity

Equity, as a term, is used expansively, but too often remains shallow in its application. Defining what it means from an operational standpoint and how it can be realistically incorporated into government policy and process is not an easy undertaking. Government agencies are built on layers upon layers of rules and regulations, have very specific operational lanes, and are often staffed at the top by political appointees. In such an environment, changes are rarely as simple as just having the political will and the power to enforce it.

In January 2024, the Biden-Harris Administration released a disaster assistance reform program. The goals of this program regarding FEMA's Individual Assistance Program are to streamline the financial process, expand eligibility to reach more people, simplify the application process, and establish new benefits after disasters for survivors (FEMA, 2024a). These changes were put into place on March 22, 2024, and are expected to help more survivors recover faster.



FEMA's equity approach uses a broad outcome-based focus: "We are focused on reducing barriers and increasing opportunities so all people, including those from vulnerable and underserved communities, can get help when they need it" (2024). FEMA has already committed to a series of agency-specific initiatives designed to enhance equity to include: expanding eligibility and access to programs;

streamlining and simplifying processes; improving access to resources by expanding the types of documentation that can be submitted; and, expanding programs and increasing ease of access related to housing and home repair (2024).

Outside of FEMA, President Biden launched the Justice40 Initiative in 2021. This executive action is an interagency governmental effort to collaborate with state and local

JUSTICE40

A WHOLE-OF-GOVERNMENT INITIATIVE

government to begin taking tangible action on the climate crisis, creating jobs, building infrastructure, and delivering justice to communities that have been subjected to environmental harm in the past (The White House, 2021). This is an important initiative, especially for rural communities, in the scope of advancing conservation, agriculture, and reforestation, which will have direct benefits for economic development by creating new sources of income and jobs for rural America as well as encouraging sustainable agriculture practices to battle climate change (The White House, 2021).

Initiatives set by Federal agencies are important steps in encouraging the advancement of equity in the aid distribution process. While improvements are being made, equity goals are still far from reached. Issues such as the role power and privilege have on equitable outcomes, despite good intentions, remain. This issue is particularly relevant in rural communities where there is a fundamental lack of power structures (Duckworth, n.d.; FEMA, 2024a; National Academies of Sciences, Engineering, and Medicine, 2018). Further, disparities in equity can look different depending on the disaster, geographic location, cultural history, level of community infrastructure, etc. and there remain wide gaps in equity in the United States including racial and ethnic disparities, socioeconomic inequalities, language and cultural barriers, gender inequalities, and geographic disparities (which include rural and remote communities) (FEMA, 2024a; The White House, 2021).

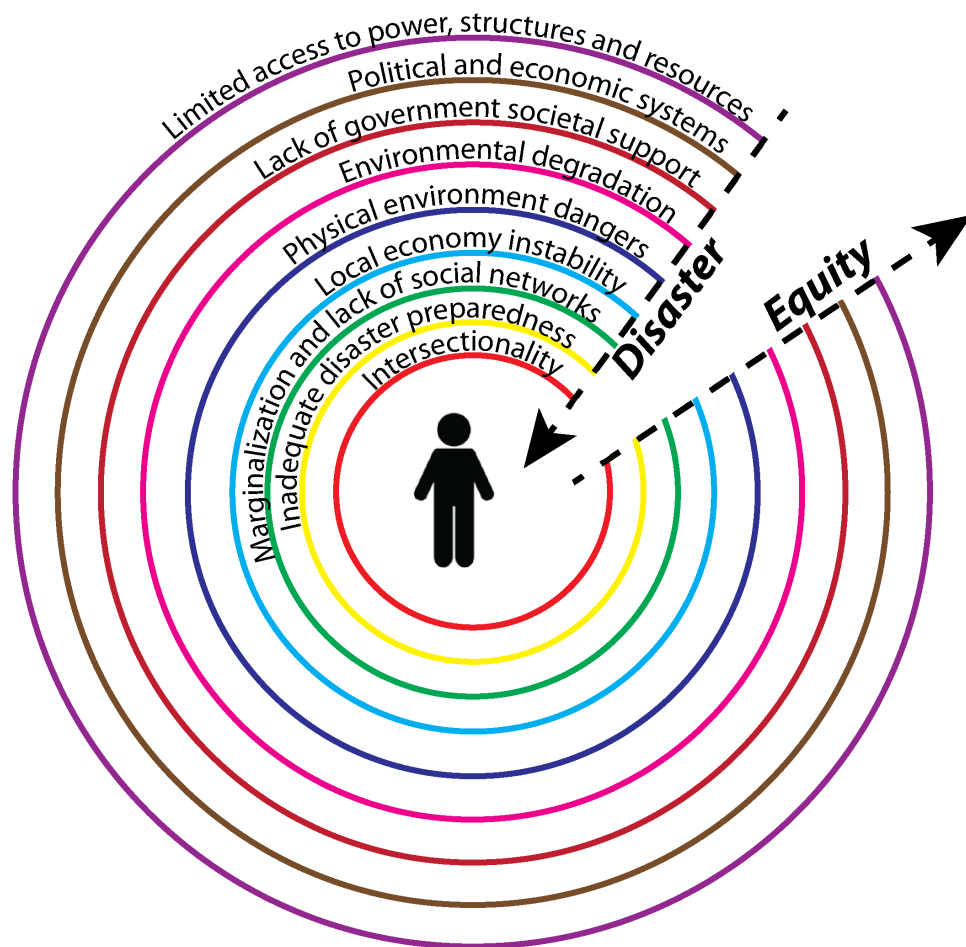
Layered and Dimensional Vulnerability

Multi-layered and multi-dimensional vulnerability challenge FEMA Region 8's ability to evaluate whether underserved populations are effectively and equitably being supported. As is clear from the research and understanding of vulnerability, it is a complex state that is created by governmental ideologies and structures, policies, processes, marginalization, lack of capacity and capability, and individual dimensions that are embedded in cultural and historical contexts that shape perspectives, experiences, and access to resources. Vulnerability is more dynamic than just the characteristics of an individual or a population. It is more than skin color, gender, disability, socio-economic status, citizenship, being housed, and the many other indicators historically relied upon as hallmarks of the vulnerable. Decisions and actions (or inactions) of governments can create vulnerability for populations where it did not previously exist. Conversely, governments have the power to reduce vulnerability by initiating focused actions taken within the context of layered, multi-dimensional vulnerability.

The effort to evaluate whether underserved populations are effectively and equitably being supported shows the importance being placed by the government on meeting the intent of their current initiatives—reducing barriers and increasing opportunities

for access. The greater the understanding of the layers and dimensions of vulnerability, the more informed government actions will be. Yet, the challenge remains regarding datasets and their inadequacy to adequately define all the populations that are underserved.

The image of layered, multi-dimensional vulnerability (below) combines the PAR model and intersectionality to illustrate that disaster impacts individuals through a series of layers, many outside individuals' control; as such, it is through those layers that equity is achieved.



Layered, Multi-dimensional Vulnerability

Discussion and Recommendations

The NDSU team's interviews and research found that there are a variety of issues that contribute to the delay in aid distribution and provide roadblocks to assistance applications. Trust issues between the local and federal governments due to inconsistent communication surrounding the policy of aid as well as the complicated appeals process, redundancy in federal aid programs, and outdated census data are the primary drivers behind roadblocks in applications. Interviewees highlighted the frustration that exists with the lack of coordination between federal agencies in the application process of recovery money. These applications can vary widely from each agency that is participating in the program, making the process long and confusing. This can be especially difficult in a rural context, where the local emergency manager does not have the time, resources, or personnel to assist these populations through the required steps to receive federal funding.

Considering the level of Individual and Public Assistance literacy at the local level in “blue sky” conditions will ensure more effective utilization of the programs during “grey sky” events. Typically, major aid or disaster recovery reform takes place after a disaster where emergency management practices and policies fall short. The Reformation Act is an example of legislation addressing some of the roadblocks in aid application and eligibility without the need for a large-scale event to highlight them.

Eliminating redundancy in federal policy surrounding aid increases the ease of communication for federal representatives and streamlines the process for those applying for aid and determining eligibility. For local communities, the numerous departments offering aid with different applications (and occasional overlap) can be extremely difficult and time-consuming to navigate even with the assistance of a liaison. Condensing these applications and reducing overlap by assigning a central body for aid management while meeting the requirements of all funding agencies would significantly streamline the process.

In the process of taking steps to reduce barriers and increase opportunities, there are other areas that warrant action. Bridging the communication, knowledge, and trust gap that exists between government representatives and programs is essential to reaching underserved populations. Culture brokers, community-based individuals and organizations that understand the layered and dimensional vulnerabilities at the local level and are trusted by the populations they serve, are a valuable resource for improving the relationships between community members and the government (Browne et al., 2019). Culture brokers can help reduce barriers to aid access and other government programs because they are a consistent presence in the community, can establish enduring partnerships with the local emergency manager, and can work as intermediaries that both magnify and validate important messages during all phases of emergency management (Browne et al., 2019).

Culture brokers can also be utilized to gain a stronger baseline understanding on a community by community basis of vulnerable and underserved populations. Understanding intersectionality at the local level allows for a more nuanced approach to outreach and services. Culture brokers can help inform community mapping and the processes used to both keep populations safe and help them recover (Browne, K. E, et al., 2019). In this way, culture brokers act as value-added capacity and capability at the local level.

Using culture brokers to connect to, and best serve, a community is not a new concept. Many jurisdictions utilize these partnerships effectively. However, utilizing these partnerships takes the type of capacity that is too often lacking in rural emergency management offices. It takes time and effort to build a robust partner network in a community; without such a network, people inevitable get left behind.

Based on the NDSU teams enhanced understanding of the problem, the following recommendations are offered:

- **Capitalize on knowledge and partnerships at the local level to collect and build community-specific vulnerability data.**

Mapping of vulnerability at the local level will provide a layered and dimensional understanding of vulnerability that would not only better inform local emergency management efforts, but would also more accurately capture a snapshot of the needs of communities before, during, and after a disaster. This mapping effort will enhance the ability to deliver with specificity the services and aid needed, which will improve disaster outcomes for these populations.

- **Fund a 36 month emergency management capacity grant program for rural areas that provides staffing and project funding specifically for rural partnership development and vulnerability mapping.**


A capacity grant program specifically for rural areas can help the communities develop the essential partnerships that will not only inform more succinct national mapping, but more effective emergency management practice across the board. The whole community approach is reinforced by such an effort. The engagement under this grant will create a more connected and cohesive community, which will in turn, create greater resilience at the individual and community level.

- **Provide rural communities that have completed the rural partnership development and vulnerability mapping additional points on federal grant applications that address meeting community needs specific to their identified population.**

Rural communities that have developed an enhanced of understanding of their population and the ways in which their different needs can be met are better able to target grant funds where they are needed. Giving those who have completed these important activities additional points will not only act as recognition of the importance of their efforts, but will also allow them to continue to advance community-based efforts.



Summary



FEMA Region 8 has a large rural population with diverse populations and subcultures that contribute to a wide range of experiences, lifestyles, and decision-making processes. When disaster strikes, there are a multitude of needs that arise, unique impacts that are experienced, and different recovery paths — with vulnerable populations experiencing a more difficult and less holistic recovery process than others. Funding Smarter, Not Harder sought to investigate how publicly available datasets could be utilized to ensure equitable aid distribution to underserved populations.

Interviews and research revealed that the problem is not as simplistic as selecting the best dataset. Instead, it is rooted in a more complex assessment of vulnerability. The importance of understanding the concepts of layered, multi-dimensional vulnerability and the ways that vulnerability shapes underserved communities is an essential first step to advancing meaningful efforts. Community partner engagement at the local level can help advance connections with the vulnerable and identify those who are underserved (because not all vulnerable are underserved).

These efforts can lead to new datasets that are more specific and of greater utility. Additionally, specific information about the underserved's aid literacy, ability to advocate for themselves politically, and ability to navigate the aid process, could ultimately inform changes in FEMA's approach to serving these populations. The findings in this report pave the way for a new understanding of, and approach to enhancing, equitable aid distribution. There are no simple fixes here, but with a change in worldview and practice, FEMA could significantly advance its efforts on this front.

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