

Mitigating Against the Inevitable: Challenges with Hazard Mitigation Planning in the Face of Climate Change

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Background

- ❖ Hazard mitigation plans (HMPs) serve as guidelines for preparing communities for natural disasters (Figure 1).
- ❖ Climate change is exacerbating these natural disasters and HMPs need to reflect these impacts.
- ❖ The aim of this project was to identify and address the challenges associated with HMPs to help communities mitigate and adapt for a climate-altered future.



Figure 1: Hazards that threaten King County communities include flooding, extreme weather, wildfires, and drought/extreme heat.

Research Question

What are some of the current challenges with hazard mitigation planning and how do we overcome them as we consider the broader implications of climate change?

Internship and Methods

As a Climate Change and Natural Hazard Project Development intern, my analysis included:

- ❖ Understanding the basic components of a HMP and the impact they have on communities.
- ❖ Hosting 7 interviews with experts to learn how they are considering climate change in their HMPs.
- ❖ Conducting literature reviews on the challenges of HMPs.
- ❖ Analyzing literary sources for solutions to make HMPs less controversial and more equitable for communities (Table 1).

Results

Challenges to HMPs include:

- ❖ **Limited stakeholder involvement:** Perspectives from at-risk groups are not always represented in HMPs.
- ❖ **Lack of concern:** While people believe climate change is happening and that it will impact future generations, there is a lack of immediate concern (Figure 2).

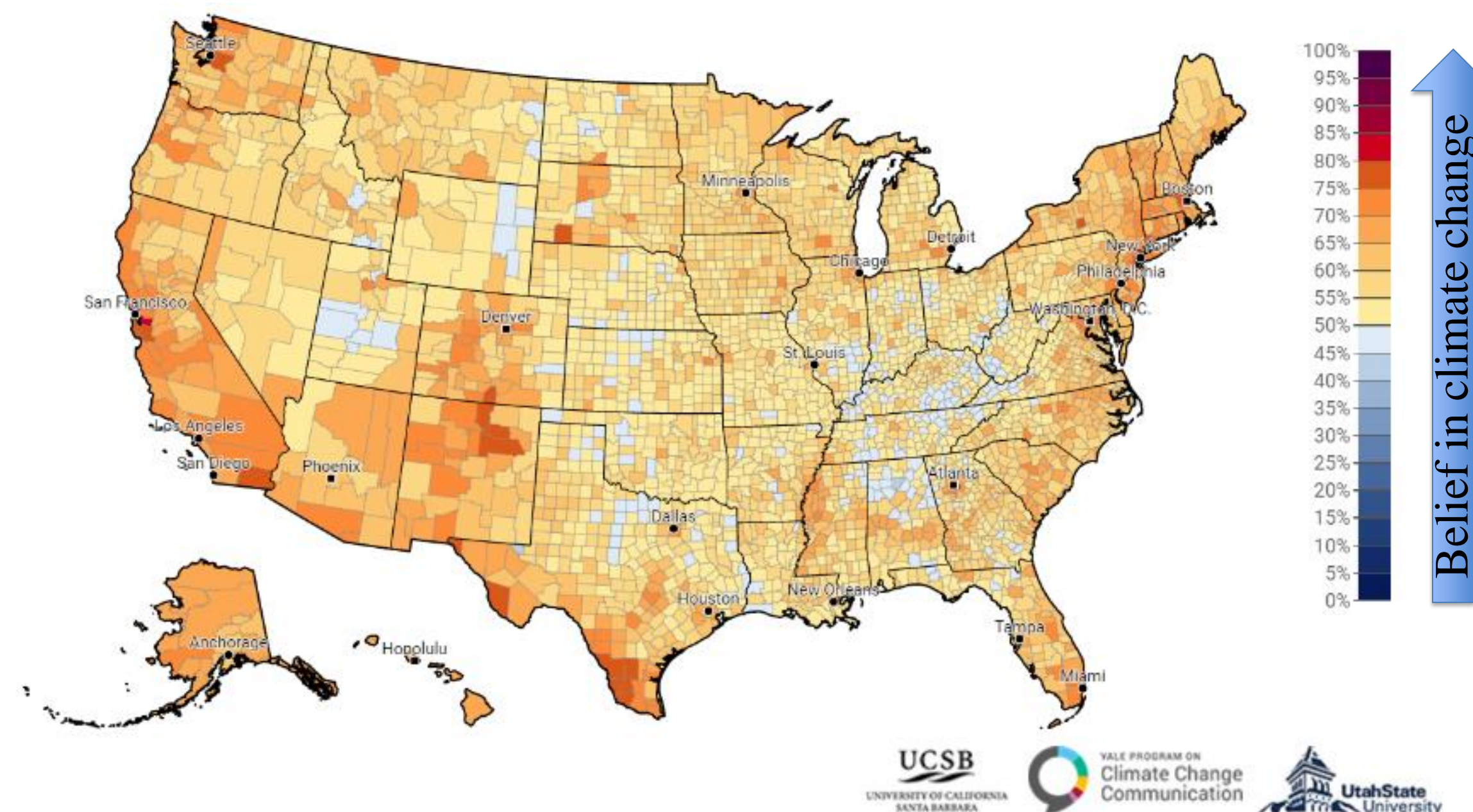


Figure 2: A map of the U.S. that illustrates the percentage of adult Americans who believe that global warming is currently happening. In King County, 75% of respondents believe that climate change is occurring whereas the national average is 65%.

- ❖ **Low public support:** Climate change is a polarized topic in the US, and many Americans believe that it doesn't affect them.
- ❖ **Limited funding:** The government has a limited budget for hazard mitigation, and not all HMPs can receive funds in the application period that they apply.
- ❖ **Weak internal accountability:** If HMPs do not get approved, HMP experts will sometimes discard the original plan instead of revising the plan for future application periods.
- ❖ **Uncertainty about the future:** Planning for natural disasters more than five years in advance involves a lot of ambiguity and projections based on current trends.

Solutions

- ❖ Immediately implement HMPs to allow communities enough time to mitigate and adapt for the future.
- ❖ HMPs must reflect the needs of all stakeholders, be supported by the public, have a reasonable budget, be followed through if not approved the first time around, and do their best to prepare for the future with the information at hand.

Hazards	→	Vulnerability
Reactive	→	Proactive
Single Agency	→	Partnerships
Science Driven	→	Multidisciplinary Approach
Response Management	→	Risk Management
Planning for Communities	→	Planning with Communities
Communicating to Communities	→	Communicating with Communities

Table 1. A shift in disaster management approaches from exclusive to inclusive is essential in successful HMPs.

Broader Significance

- Adapting and mitigating communities for climate change is critical in ensuring the safety and well-being of future generations.
- Communities need to engage in **collaboration** (agencies and stakeholders working together to make decisions) and **diffusion** (sharing ideas between communities over time and space).
- The public needs to be involved in conversations about the effects of climate change within their communities and advocate for action within their local governments.

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