

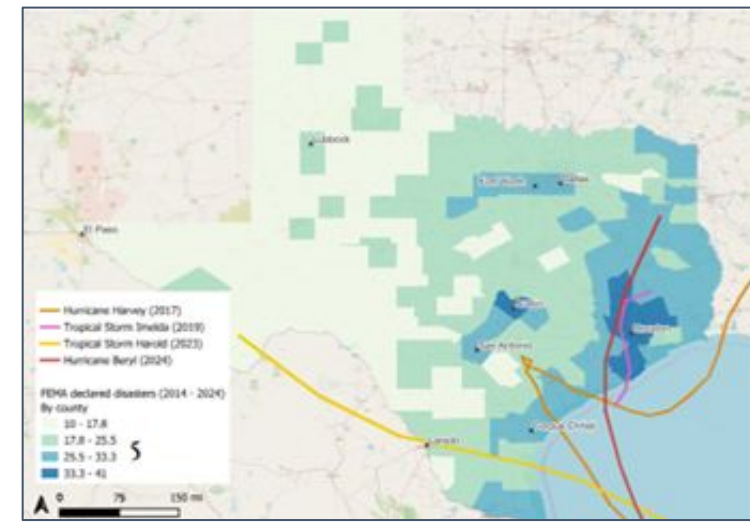


Bracing for the Storm: Ideal vs Actual Natural Disaster Preparedness in Texas

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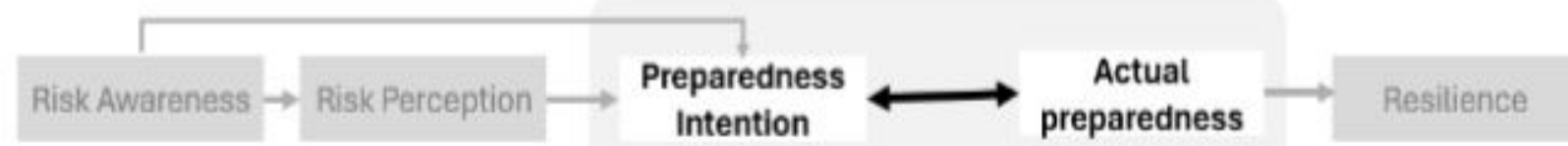
Background

- Texas provides a compelling case of study as it leads the nation not only in the frequency but also in the costliness of severe weather events.
- In the last 5 years, Texas declared 11 natural events, most of them occurring in the southwest region of Texas near the Houston MSA.



As extreme weather events increase, household preparedness for events becomes more relevant.

In 2024, before Hurricane Beryl, almost 100% of Texans took at least one action to prepare for 2024 hurricane season, the most common measure being charging electronics & buying drinking water and non-perishable food.



Research Question

How do different groups differ in the gap between their perceived ideal approach and their actual preparation?

Gap	How we address gap
Most studies ask how people have prepared in the past. Need for assessing intentions instead of past behavior	Conjoint: actual and ideal preparation compared
Adequate preparation looks different by households, by hazard, previous experiences, beliefs, perceptions & cultural characteristics	Look at different groups to understand why some prepare more or differently than others
Need for research on evidence-based strategies for preparedness	We don't look at effective but perceived ideal
Not much is known about how much preparation is enough and how does an effective preparation look like	Survey-based research before and after extreme weather
People tend to underprepare for low probability, high consequence events	

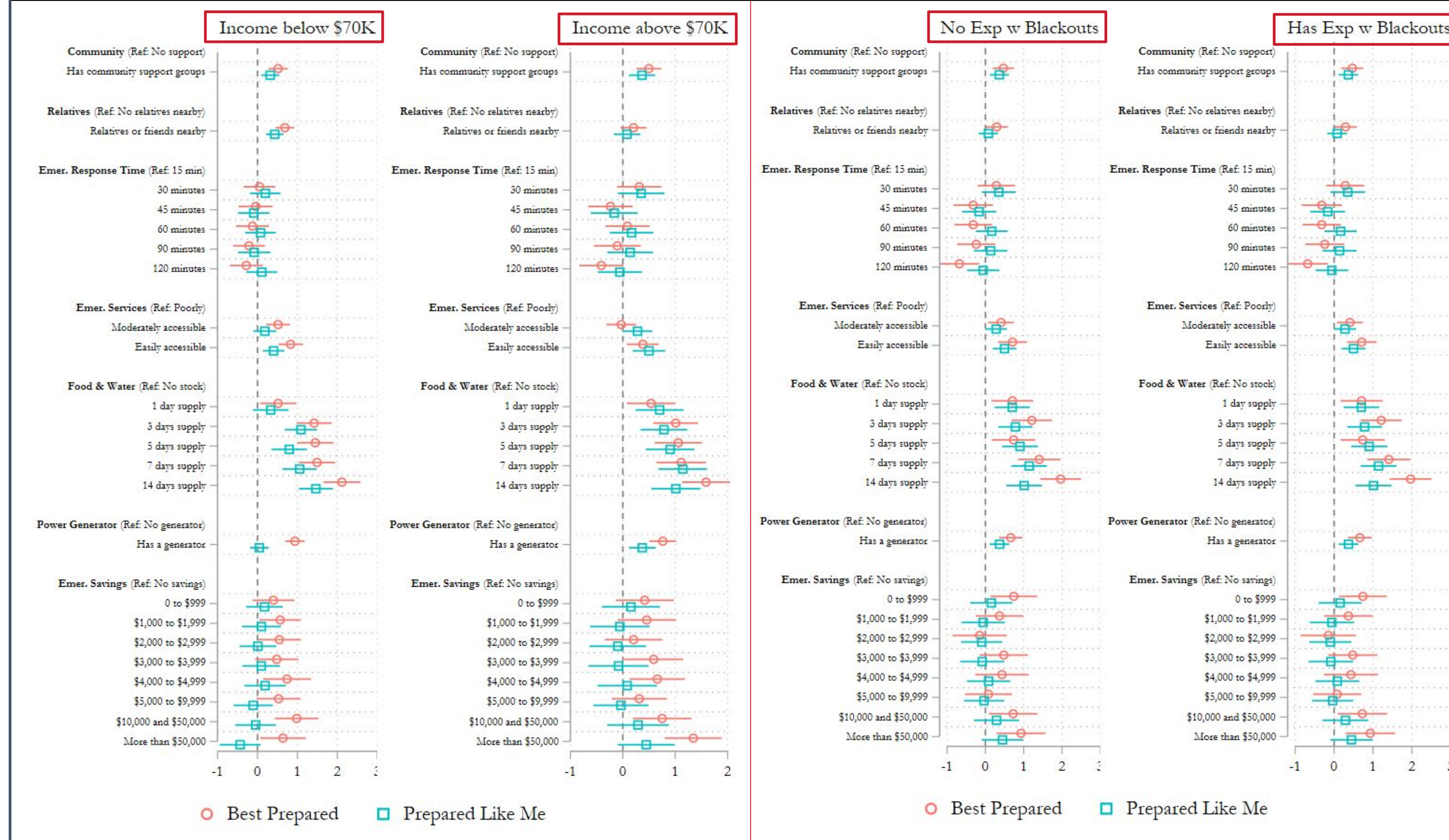
Conjoint Design & Empirical Specifications

- We designed a conjoint experiment where respondents were asked two questions:
 1. Which profile do you think is better prepared for a natural disaster?
 2. Which profile is similar to the way you usually prepare for natural disasters?
- Seven Attributes: Community Support, Relatives in the area, City emergency time response, Accessibility of emergency services, Food and Water Supply, having a Power Generator, and Emergency Savings.
- The survey was conducted at the beginning of the hurricane season in the State of Texas, between June 20 and July 1, 2024.
 - It was administered in both English and Spanish to a sample of 2,257 YouGov respondents aged 18 and older.
 - Of these, 1,709 respondents participated in our experiment.
 - Each respondent answered five trials in the experiment.

Results



Results by Subsample



Findings

- The largest gap between respondents' ideal and actual preparation occurs in the attributes of supply, power generators, and savings.
 - The gap is larger among respondents with lower income.
- For most respondents, having more emergency savings reflects their ideal preparation.
 - However, in terms of actual preparation, it did not have much of an effect.
 - Meaning: people do not have emergency savings.
 - Regardless of socioeconomic status or prior experience with blackouts.
- We did not document much of a difference between actual and ideal preparation when analyzing subgroups based on prior experience with blackouts.