

Understanding the Role of Building Codes in Organizational Disaster Resilience Building Activities

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ABSTRACT

Previous research identifies building codes as an important tool for improving disaster resilience, yet less is known about how they shape the resilience-building efforts of community and nonprofit organizations engaged in rebuilding activities. This gap is particularly significant in Texas, where building codes are unevenly adopted and enforced. Understanding how organizations navigate building code implementation is critical for equitable planning, as these groups play a central role in disaster recovery while serving underrepresented and marginalized communities.

RESEARCH QUESTIONS & OBJECTIVES

What role do building codes play in organizations' approach to rebuilding after disasters?

- Examine organizational priorities around disaster resilience and building strength in Texas
- Identify strategies for resilience through construction, rebuilding, retrofitting, and advocacy

How are nonprofit organizations engaged in building-related activities considering resiliency in their decision making?

- Assess how building code adoption and enforcement influences post-disaster decision-making
- Identify gaps and opportunities in building codes for hazard resilience

BUILDING CODES, EQUITY, AND DISASTER RECOVERY

Research suggests building codes may reinforce existing inequalities when vulnerable communities face barriers to compliance, including limited financial resources, weak governance support, and uneven enforcement. Existing scholarship is heavily quantitative and focused on large-scale or municipal contexts, with limited attention to neighborhood-level recovery dynamics or organizational experiences in post-disaster rebuilding. This study addresses these gaps by examining how Texas rebuilding organizations navigate building code adoption, enforcement, and resilience-building in practice.

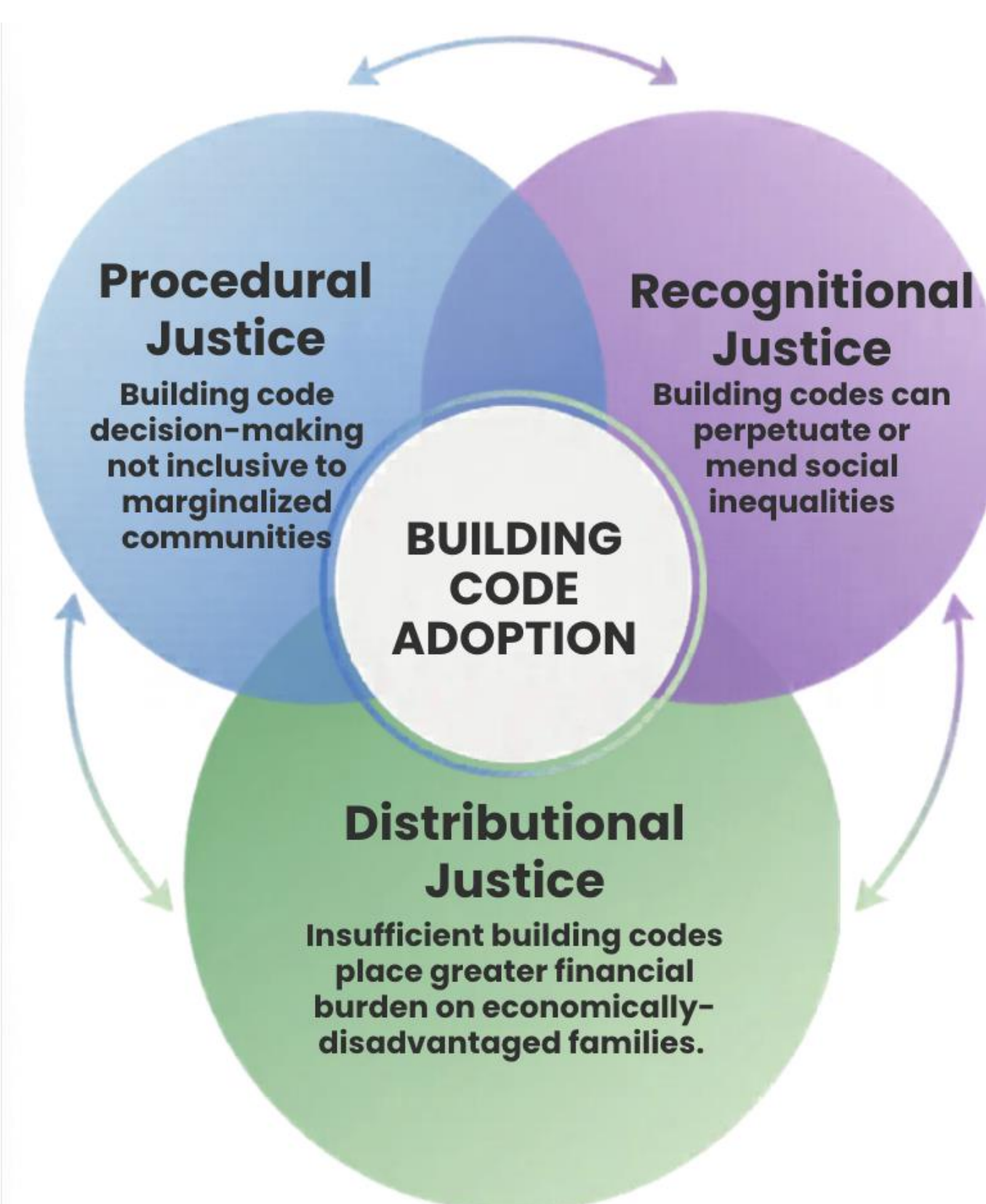


Figure 1. The Intersections of Justice and Equity and Building Code Adoption

METHODOLOGY

This study uses semi-structured interviews with organizations in Texas focused on disaster rebuilding activities, including constructing and rebuilding post-disaster, retrofitting, and code advocacy (n=6 as of 05/13/26).

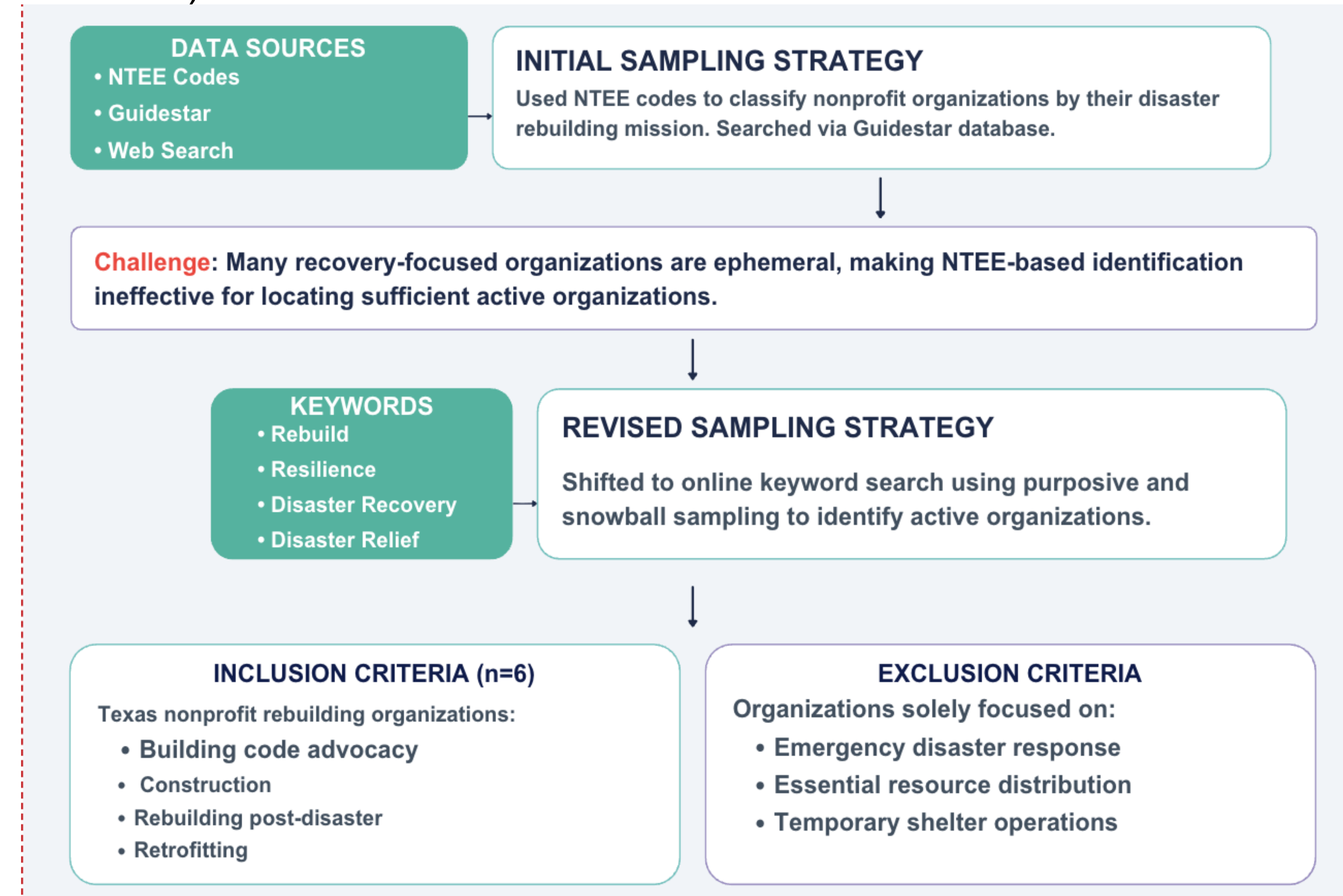


Figure 2. Iterative Sampling and Participant Recruitment Process

PRELIMINARY FINDINGS

1. Building Codes Alone Are Insufficient

Participants described building codes as limited resilience tools due to inconsistent adoption, enforcement, and inability to address escalating climate hazards. Many organizations reported building beyond minimum code requirements to better prepare homes for future disasters.

2. Uneven Implementation Creates Recovery Challenges

Poor communication of new code requirements and limited funding can disrupt post-disaster recovery. Survivors rebuilding older or inherited homes in flood-prone areas may lack the resources to comply with updated standards or relocate.

3. Organizations Use Flexible and Innovative Strategies

Organizations relied on partnerships, informal advocacy, negotiated compliance, and building science-informed interventions to strengthen homes with limited recovery funding, often exceeding formal regulatory requirements.

4. Resilience Extends Beyond Housing

Participants emphasized that structural improvements are only one aspect of resilience. Pre-disaster planning, addressing existing inequities, neighborhood revitalization, and collaboration were identified as equally important resilience-building strategies.

RESEARCH IMPLICATIONS



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