

EXPLORING THE SOCIAL CHARACTERISTICS OF ADAPTIVE CAPACITY TO WILDFIRE

Insights from Flathead County,
Montana

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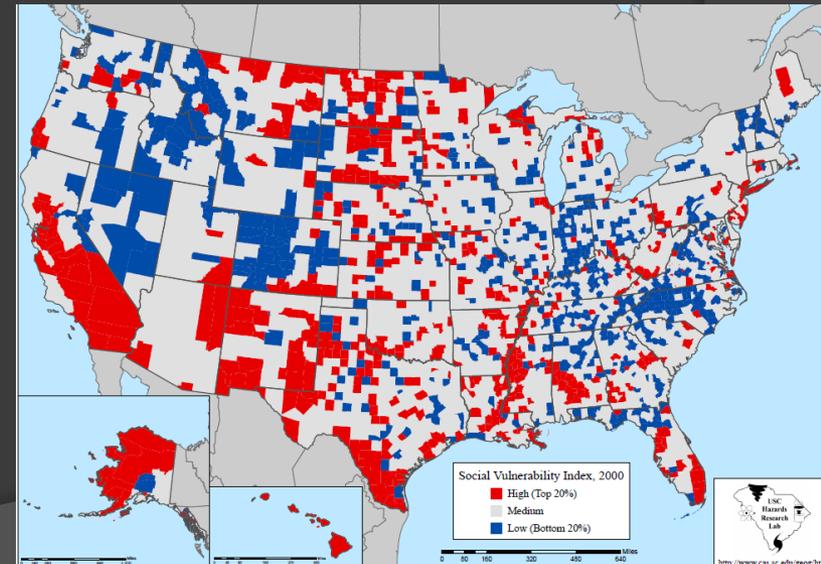
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Introduction and goals

- Better understand the social characteristics that contribute to or help alleviate wildfire risk
- Test adaptive capacity framework

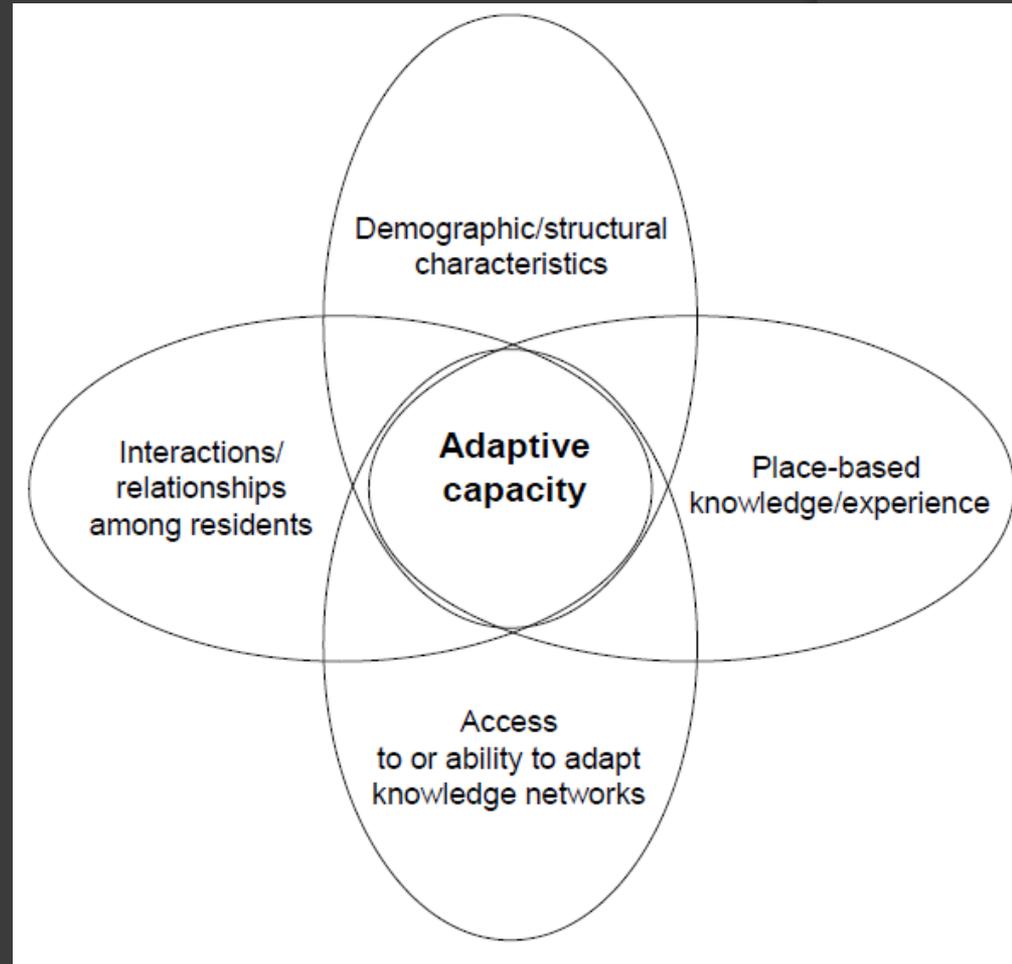


Introduction and goals

- Wildfire as a collective hazard and social diversity
- Social factors driving wildfire risk/damage can diverge from other hazards and across scales
- Focus on human ability to **adapt** and **act**
- Provide the basis for expanded use and understanding of adaptive capacity

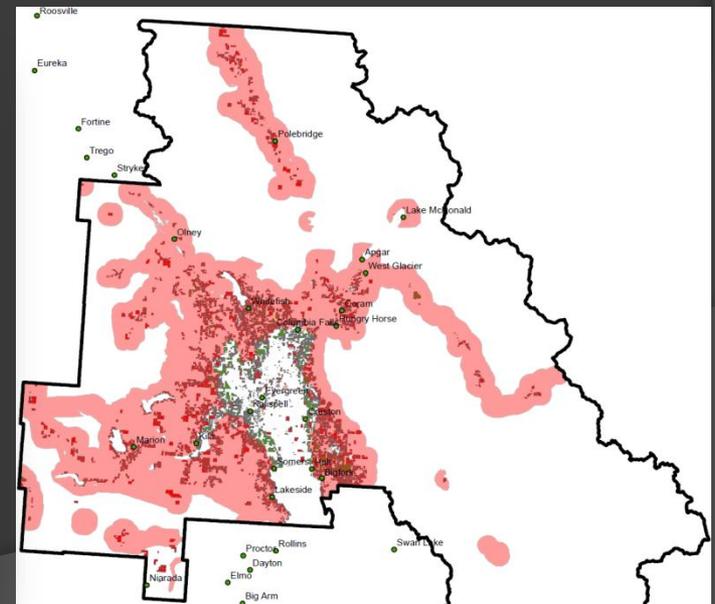
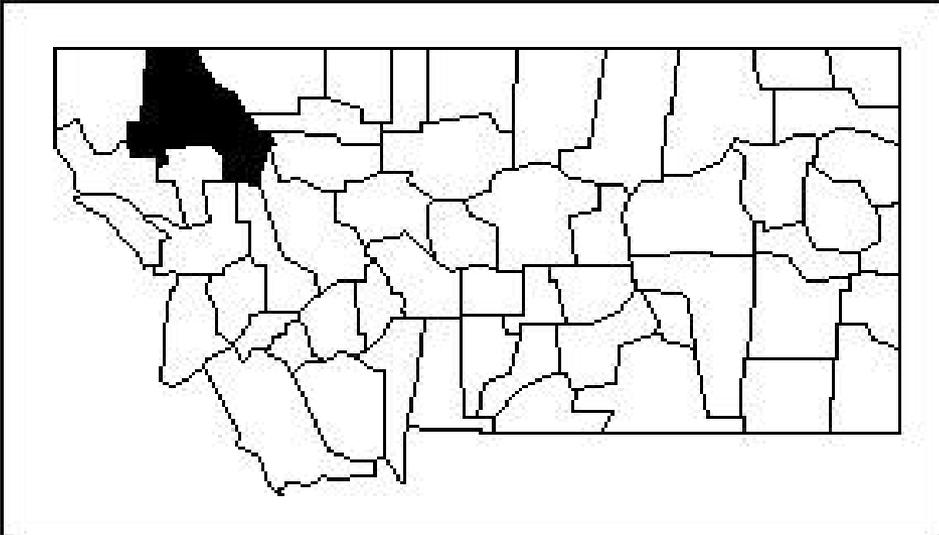
Understanding adaptive capacity

- Highlights the importance of social context
- Includes “intangible” elements of human interaction
- Adaptive capacity as a **predictor, explanation**



Study area and methods

- Three focus groups with local stakeholders
- Key informant sampling
- Participant observation and interviews



Results:

Characteristics influencing
adaptive capacity of populations
in Flathead County

Interactions/relationships among residents

- Mobilization by local champions
- Communication networks
- Community identity and collective action
- Risk reduction initiatives among agencies and communities
- Local firefighting capacity supported by volunteerism



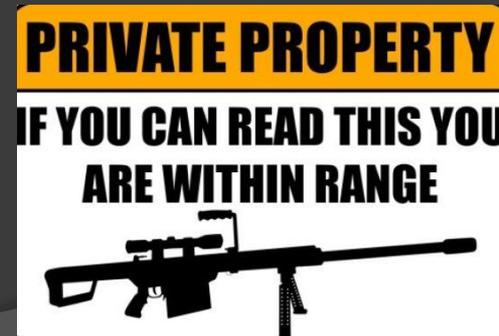
Access and ability to adapt knowledge networks

- Diversity of people/skills in a locality
- Community organizations
- Community fire organizations
- Residents' understanding of local fire suppression responsibilities and limitations
- Land use, building or fuels reduction standards



Place-based knowledge and experience

- Local experience with wildfire
- Awareness and local ability to reduce wildfire risk
- Place and or community attachment
- Perception and action related to forest health/aesthetics
- Local independence or distrust of government



Demographic/structural characteristics

- Development patterns/landscape fragmentation
- Wood products market
- Proximity of mill facilities
- Willingness/ability to pay for fire mitigations/actions
- Number of second/seasonal homeowners and turnover rate



Discussion:

An interactional* approach to
adaptive capacity

*Wilkinson 1992

Demographic/structural characteristics

1. Mobilization by local champions
2. Communication networks
3. Community Identity/collective action
4. Risk reduction initiatives among agencies/locals
5. Local firefighting capacity supported by community volunteerism

16. Development patterns/landscape fragmentation
17. Wood products market
18. Proximity of mill facilities
19. Willingness/ability to pay for fire mitigation actions
20. Number of second /seasonal homeowners and turnover rate

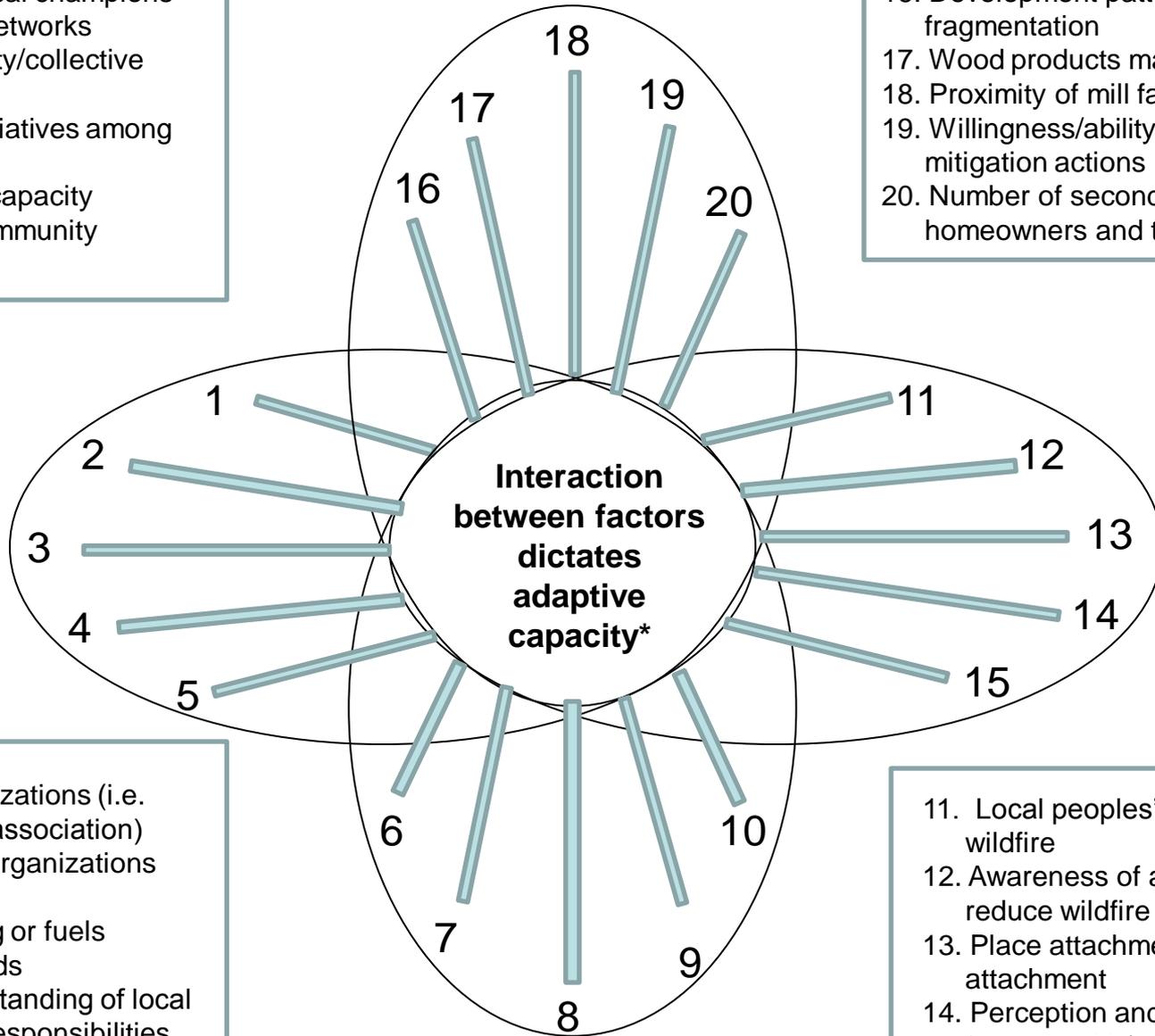
Interactions/relationships among residents

6. Community Organizations (i.e. homeowners' association)
7. Community Fire Organizations (i.e. Firewise)
8. Land use, building or fuels reduction standards
9. Residents' understanding of local fire suppression responsibilities and limitations
10. Diversity of people/skills in locality

Access to and ability to adapt scientific or technical knowledge networks

Place-based knowledge and experience

11. Local peoples' experience with wildfire
12. Awareness of and local ability to reduce wildfire risk
13. Place attachment/community attachment
14. Perception and action related to forest health/aesthetics
15. Local independence or distrust of government



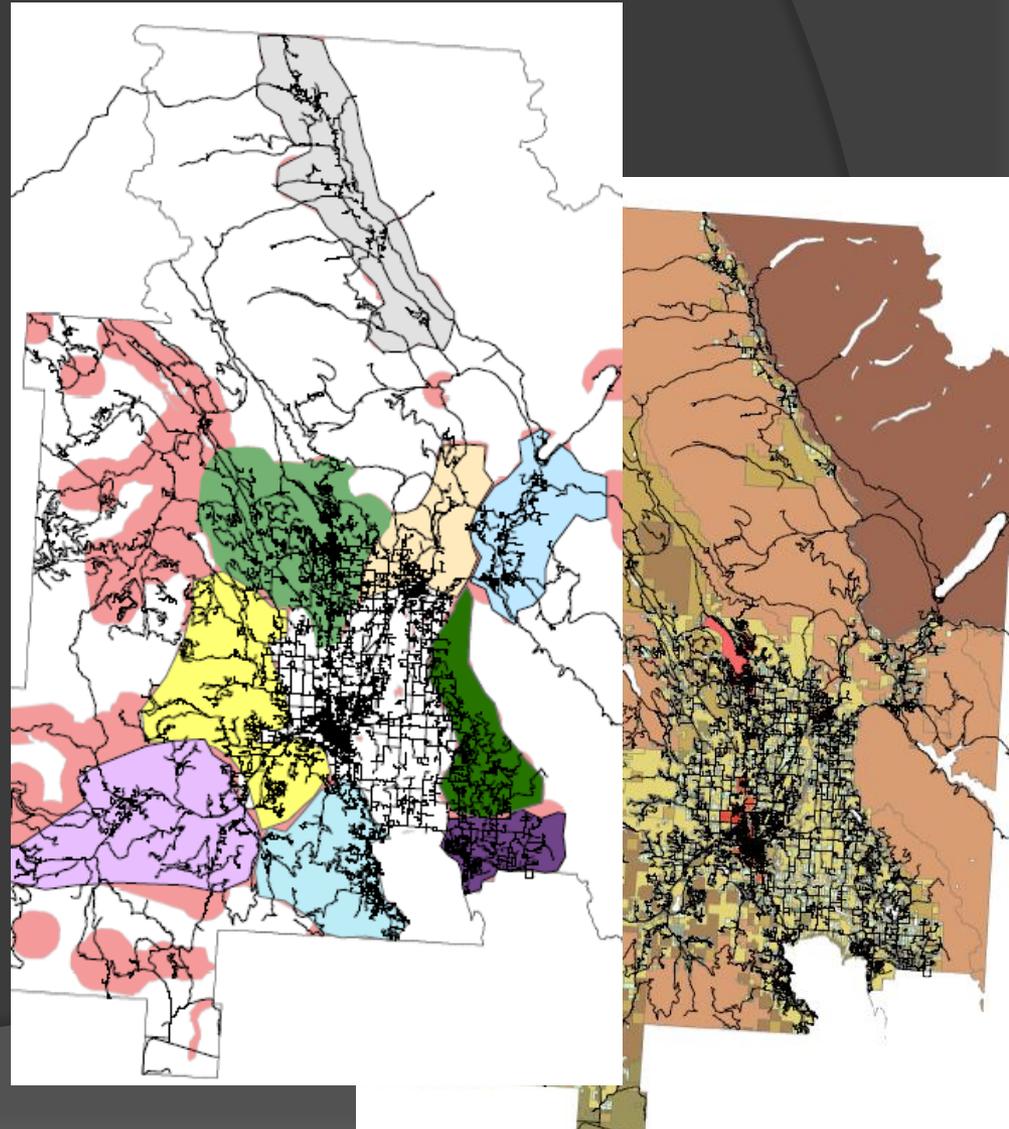
The emergence of social context

- ◎ The interaction between characteristics as the basis for residents' behaviors and capabilities:
 - **Community fire organizations** are typically spearheaded by **local champions**, which can help build, create or utilize **communication networks** that may increase local awareness of and ability to reduce wildfire risk

The nestedness* of adaptive capacity

*Beckley 1998

- ⦿ Characteristics of adaptive capacity may exist at different scales
- ⦿ County-level analysis or use of broad-brush secondary data misses complexity



Where do we go from here?

- ⦿ Identification of common or additional characteristics in other localities
- ⦿ Characterizing the **interactions** of characteristics and their outcomes
- ⦿ Building better data for “intangibles”

For what purpose?

- ⦿ Collective theoretical understandings and approaches for addressing the “wildfire problem” and collaborating to reduce it
- ⦿ **The result:**
 - The basis for consistently assessing and understanding **capabilities**, not just targets
 - Tailoring resource application where needed to foster truly adaptive populations

Project Sponsors

- Joint Fire Science Program
- National Science Foundation

