

Stories from the fire: An initial look at institutional responses to operationally engaged residents on wildfires of the Western United States

Clare FitzGerald, MPA & Mary Clare Hano, MPH
TPAC/PAC – June 2014

Branda Nowell, Ph.D. (Principal Investigator)

Toddi Steelman, Ph.D. (Principal Investigator)

Key Points

- In the United States, large-scale wildfires that include a wildland urban interface can be highly destructive disasters.
- The Incident Command System provides a response framework
 - Incident Management Teams

Key Points

- The fire management environment is highly institutionalized and characterized by a high degree of professionalization.
- Resident engagement
 - occurs on WUI incidents
 - is guided by diverging emergency frameworks
 - preparedness vs response
 - varies from bystander to active participant in response

Construct

- Operationally engaged resident (OER)
 - Any resident who self identifies as part of the official fire response
 - Require resources in the form of time and information from the responding IMT

Research Questions

- What does it look like when operationally engaged residents participate in the ICS?
 - How do operationally engaged residents participate in the Incident Command System?
 - How does the Incident Command System respond?

Theoretical Background

- Institutional Theory (DiMaggio and Powell, 1983)
 - Normative, Coercive, and Mimetic Pressures
- In this paper we use this theory to guide our initial understanding of the research question and the situation, and not to predict the outcome of our analysis.

Theoretical Background

- Institutional theory suggests that IMT response to operationally engaged residents is shaped largely by institutional pressures resulting in acceptable practices and norms
- Normative Isomorphic Pressures
 - Norms and values are shared with young professionals through training and spread throughout the institution through membership in professional organizations

Theoretical Background

- Coercive Isomorphic Pressures
 - IMTs must conform to federal regulations from multiple agencies and incorporate legal and regulatory guidance in their response
- Mimetic Isomorphic Pressures
 - As there is a level of uncertainty in dealing with residents on incidents, IMTs may also look to leading successful teams to guide and gauge their own approach

Methods: Study Context

- Fire Chasers Project (<http://firechasers.ncsu.edu>)
 - “advance the science of adaptive capacity toward more disaster resilient communities”
- 2013 Fire Season
 - 3 wildfire incidents with a Type 1 or 2 IMT
 - Examined the formal and informal information networks of stakeholders
 - Focus on information processes and relational risks inherent to fire management

Methods: Data Collection

- Critical Case Sampling Strategy (Patton, 2002)
 - Incident provided a case where the interactions were demonstrated dramatically, but not extremely
- Semi-structured, open-ended interviews
 - Purposeful Sampling: Participants are IMT members, agency representatives, and local community members
- Interviews with 10 individuals
 - 8 full transcripts & 1 set of detailed notes.
 - Representative of the roles involved in response

Methods: Analysis Strategy

- Used naturalistic inquiry to explore the interactions among OERs and IMT members
- Analyzed interviews using inductive thematic coding (Patton, 2002)
 - Followed open, axial, and selective coding process (Glasser and Strauss, 1967)

Findings

- RQ: What does it look like when operationally engaged residents participate in the ICS?
- IMT members and OERs go through a process of fast-track relationship building
 - IMT members toe the line
 - OERs are not the typical “resident”
 - Both IMT members and OERs work to build mutual understanding

Findings: Toeing the IMT line

- IMT members communicate their collective institutional identity as well as their team culture and identity
 - “...we’re [the IMT] here as a service to the agencies that we’re delegated authority from. We’re here to serve them. They give us the direction and then we have to go implement it to the best of our ability...” *(IMT member)*
 - “...it’s life first in this team, which includes us, property second...so it goes in that order; that’s the teamed order...” *(IMT member)*

Findings: Not the average resident

- OERs possess unique information & material resources and can require high levels of information
 - “At 6:00am I called dispatch again. They couldn’t tell me a whole lot...They didn’t know what was happening. I asked, ‘When you get an update, will someone call me back?’ ...” (*Resident*)
 - “I think we even had one guy that was using his dozer out there when we didn’t have anything else ” (*IMT member*)
 - “...we are overlooked as a resource ... they really underestimate what we can do” (*Resident*)

Findings: Mutual understanding

- Both IMT members and OERs work to build relationships based on mutual understanding, honesty and attentiveness
 - “Operationally we can succeed, but without understanding and support from those that are affected, it doesn’t matter.” (*IMT member*)
 - “I said, “I really don’t want to lose that (riparian restoration area on the property), we lost all the others.” And he said “I agree with you,” and so he called it in...” (*Resident*)

Discussion

- Institutionalism, in the way we expected to see it, is best characterized by “toeing the line”
- Our analysis suggests institutionalism in action
 - Innovation, repetition and then adoption
 - Changes are happening in how IMTs perceive and engage residents and vice versa

Limitations & Implications

- Limitations
 - Limited sample and transferability
- Future Research
 - Further explore findings and specifically assess attitudes towards engagement
 - Possible research questions might examine variation in engagement across IMTs as well as in type of OER beyond large landowner
- Practice
 - Continue to shift the “line”
 - Incorporate frontline staff

This project is directed by

- Branda Nowell, Ph.D. (Principal Investigator)
- Toddi Steelman, Ph.D. (Principal Investigator)



- Research Funding Provided by:



This research is part of a larger initiative funded by the National Science Foundation, Joint Fire Science Program, and the USFS Northern Research Station. All views and conclusions in this document are those of the authors and should not be interpreted as representing the opinions or politics of the US Government. Mention of trade names or commercial products does not constitute their endorsement by the US Government.