2019 NSF WORKSHOP

Connecting Large Facilities and Cyberinfrastructure

Rachel Adams
Postdoctoral Research Associate
Natural Hazards Center
University of Colorado Boulder
The Natural Hazards Center

**Mission**: We are the National Science Foundation-designated information clearinghouse for the societal dimensions of hazards and disasters. We are dedicated to reducing disaster harm through:

1. translating and sharing hazards and disaster research and information;
2. building connections between researchers, non-profit and private sector professionals, the media, policy makers, and local, state, and federal officials;
3. advancing social science and interdisciplinary knowledge, with a special emphasis on the most vulnerable populations and places; and
4. training and mentoring the diverse next generation of hazards and disaster professionals.
CONVERGE is a new National Science Foundation-Natural Hazards Engineering Research Infrastructure (NSF-NHERI) facility dedicated to:

- **identifying** and **coordinating** researchers and research teams;
- **advancing** hazards and disaster research;
- **encouraging** the publication of data and data collection instruments and protocols (DesignSafe Cyberinfrastructure + CONVERGE);
- **supporting** and **accelerating** training and mentoring;
- **funding** virtual reconnaissance, field research, and the development of novel research instruments and data collection protocols;
- **accelerating** the development of mobile applications for social science data collection (NHERI RAPID);
Workforce Development:

• NSF Enabling Program
  https://hazards.colorado.edu/resources/nsf-enabling-program
• Nested mentoring among postdoctoral research associates, graduate research assistants, and undergraduate interns
• NHC’s Annual Workshop and Researcher’s Meeting
Workforce Development:

- The Bill Anderson Fund Fellows
- NSF INCLUDES–Minority SURGE Capacity in Disasters
  [https://www.surgedisasters.com/](https://www.surgedisasters.com/)
CONVERGE Training Modules

• Free, online courses designed to accelerate the training of diverse hazards and disaster researchers, including students and early career researchers
• 30-60 minutes to complete and includes quiz and certificate of completion

Children

Children are dependent on adults for shelter, safety, and sustenance, and thus rely on others to prepare for, respond to, and recover from disasters. In addition, their still-developing bodies and minds make them highly susceptible to dangerous infections and diseases that can result from exposure to hazardous conditions such as contaminated water, polluted air, and radiation. Children are at risk for a range of negative psychological outcomes and behavioral issues.

Older Adults

Older adults experience higher rates of chronic health issues and disabilities, and are more likely to live in isolation, have little economic and social capital, require assistance in daily living, and have limited access to Internet and social media, through which disaster-related information is commonly disseminated. Disastrous events can also trigger certain psychological and emotional reactions among the elderly, such as fear of the unknown and reluctance to leave pets, property, and other possessions.

Here are some additional resources that can be used to support hazards and disaster research on vulnerable populations.

These resources include key readings, standardized measures, secondary datasets, and other web resources.

Measures:
• CDC's Social Vulnerability Index (SVI)
• University of South Carolina's Social Vulnerability Index (SoVI)

Web Resources:
• Communicating Risk in Public Health Emergencies: A WHO Guideline for Emergency Risk Communication (PIRC)
• Disaster Ready
• Emergency Preparedness and Response for Vulnerable Populations
• UNICEF Task Team on Inclusion of Persons with Disabilities in Humanitarian Action
• Understanding Older People and Their Needs in a Humanitarian Context

Secondary Datasets:
• CDC's Social Vulnerability Index (SVI)
• FEMA's Hazus
• Global Risk Data Platform
• The American Hotspots Project

Key Readings:
• Children
  - Children and Disasters
  - Children with Disabilities in the Context of Disaster: A Social Vulnerability Perspective

Did You Know?
4,509 children were missing or separated from their families during the first three months following Hurricane Katrina.

https://converge.colorado.edu/training-modules
Cyberinfrastructure for Hazards and Disaster Data Publication
Social Science and Interdisciplinary Data Model

- Planning Documents and Research Protocols
- Interview Guides, Questionnaires
- Audio Recordings
- Photos
- Data
Thank you!

hazards.colorado.edu
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Rachel Adams: rachel.adams-1@colorado.edu