CSTE Workshop

May 18, 2021

Mobilizing Social Science and Public Health Researchers in Major Disasters

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University of Colorado Boulder

converge.colorado.edu | hazards.colorado.edu

University of Colorado **Boulder**

Post-disaster research can be classified as:

- Early Reconnaissance (days to ~2 weeks)
- Emergency Response and Early Recovery (days to ~3 months)
- Short-Term Recovery (3 months to ~2 years)
- Longer-Term Recovery and Reconstruction (2 to ~10 years)

Common Goal:
Collect Perishable Data

National Research Council, 2006

The Importance of Quick Response Research

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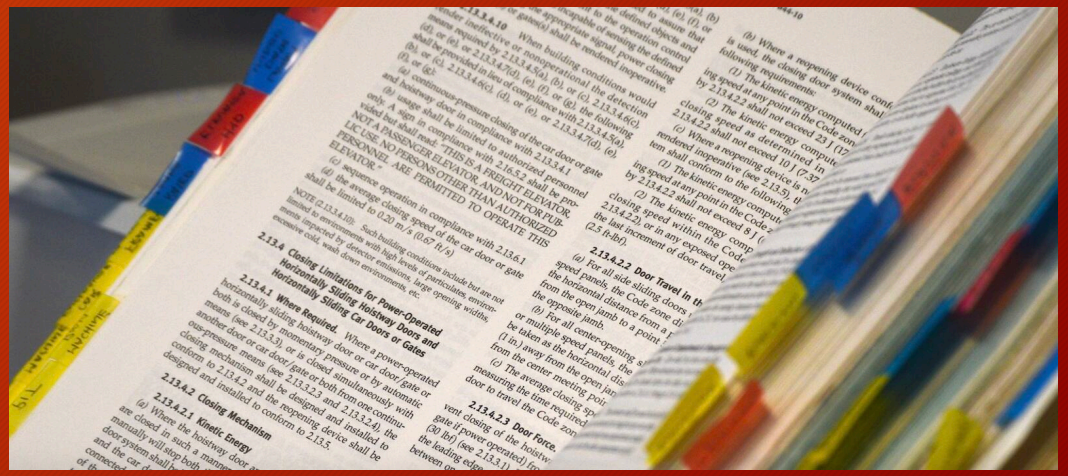
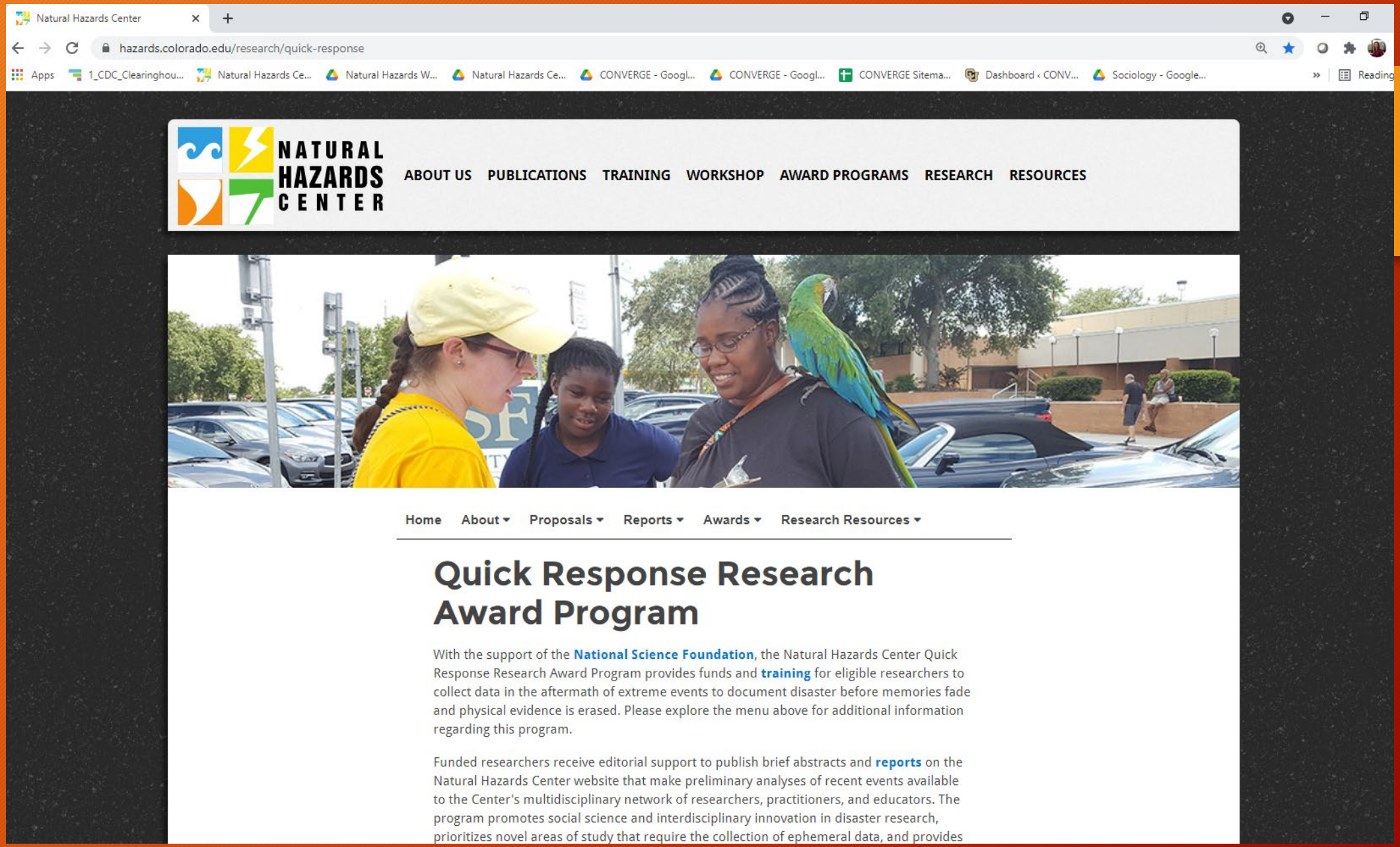
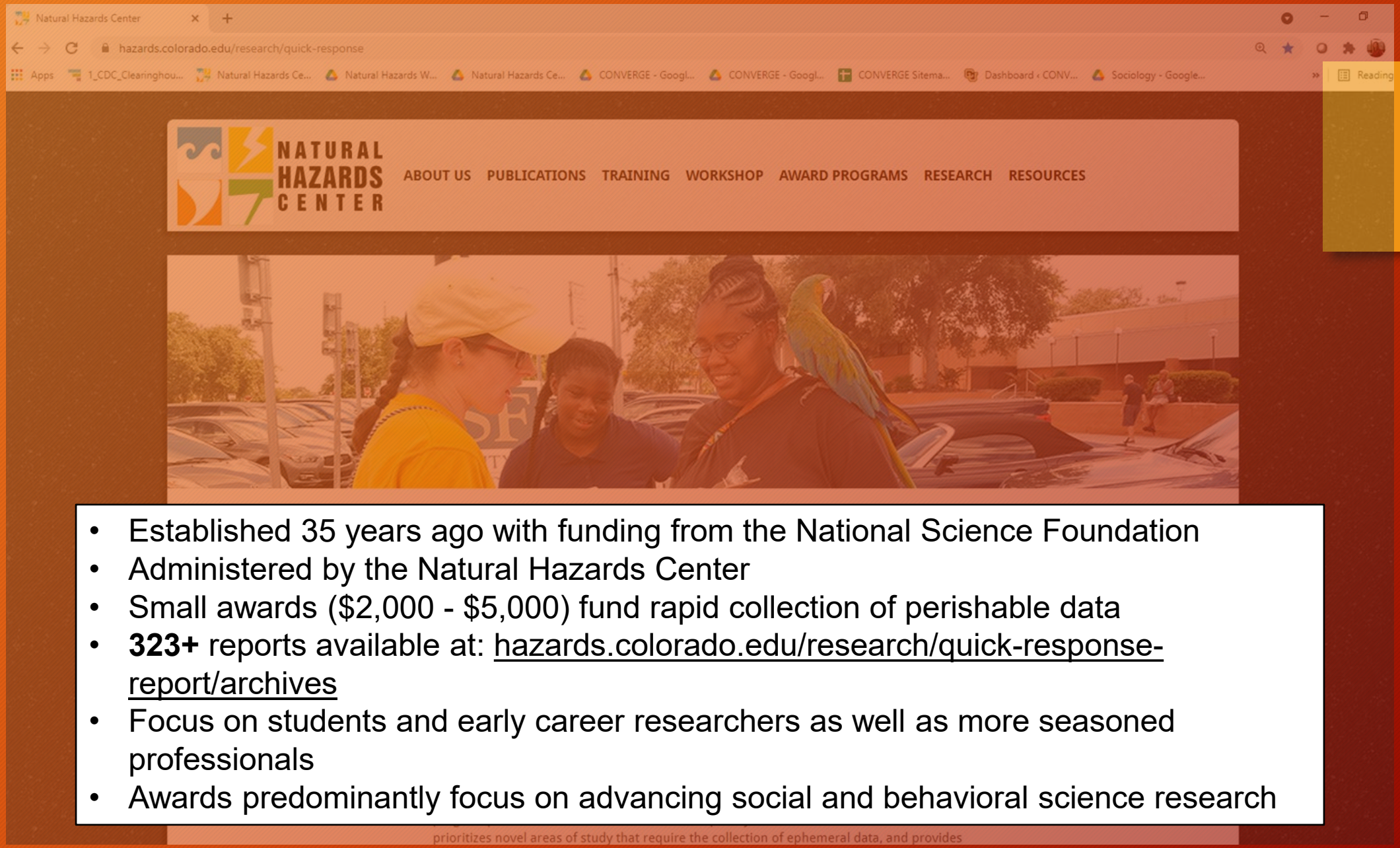


The Importance of Quick Response Research

1. 70+ years of post-disaster research has led to knowledge breakthroughs and a robust body of research evidence
2. Those efforts—unapologetically applied—have led to fundamental changes in policy and practice
3. This research, often funded through federal agencies, has helped develop multiple generations of the hazards and disaster workforce



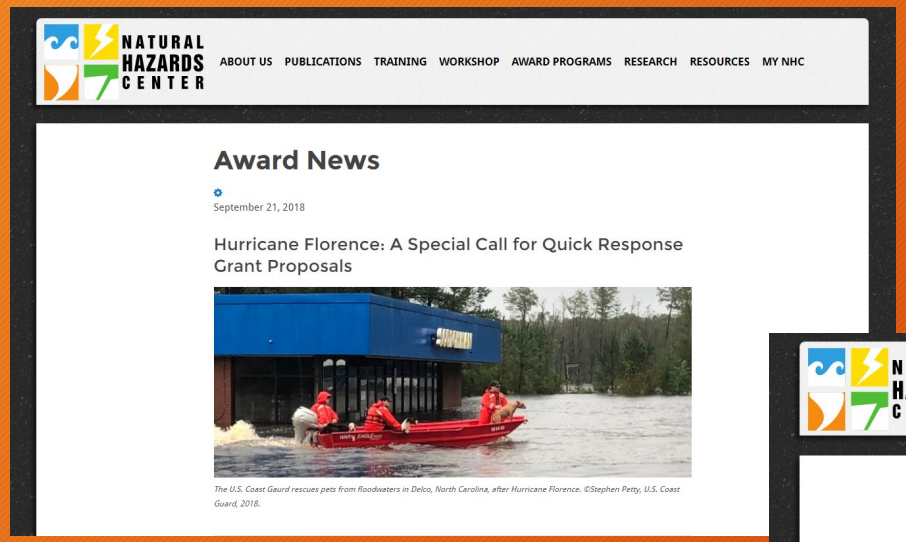
hazards.colorado.edu/research/quick-response

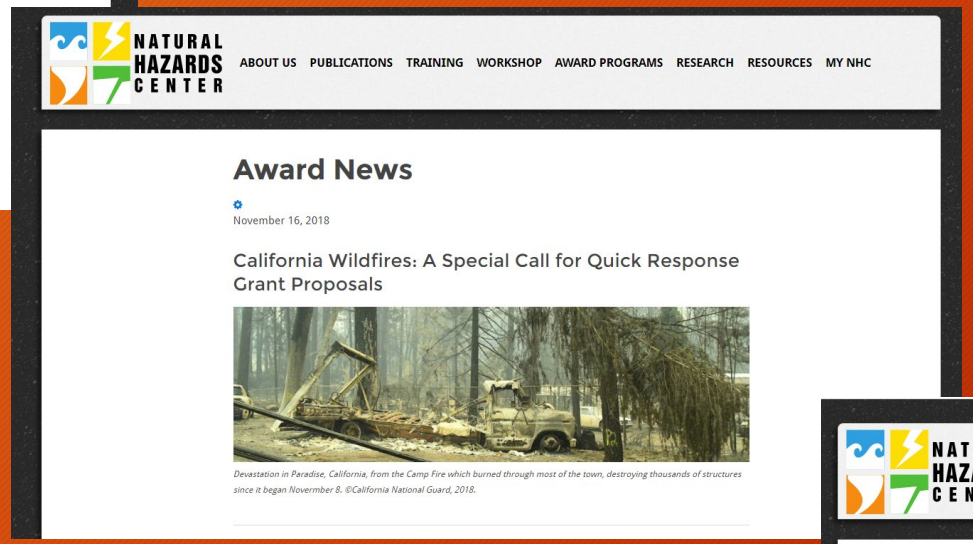


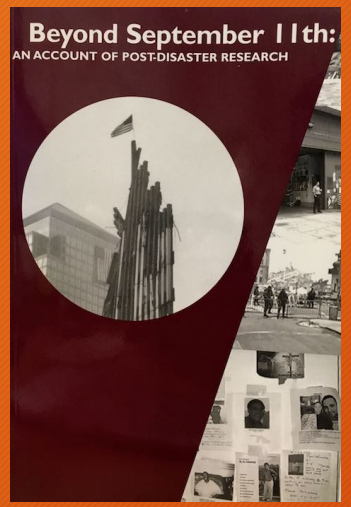
- Established 35 years ago with funding from the National Science Foundation
- Administered by the Natural Hazards Center
- Small awards ($2,000 - $5,000) fund rapid collection of perishable data
- **323+** reports available at: hazards.colorado.edu/research/quick-response-report/archives
- Focus on students and early career researchers as well as more seasoned professionals
- Awards predominantly focus on advancing social and behavioral science research

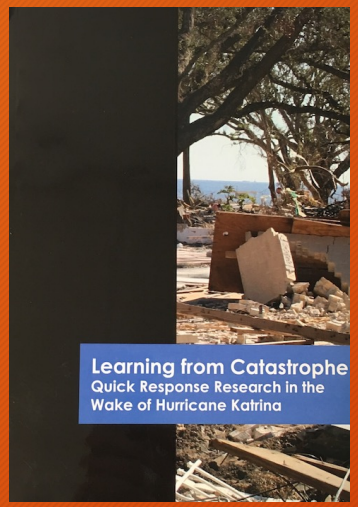
hazards.colorado.edu/research/quick-response

Special Calls for Major Disasters

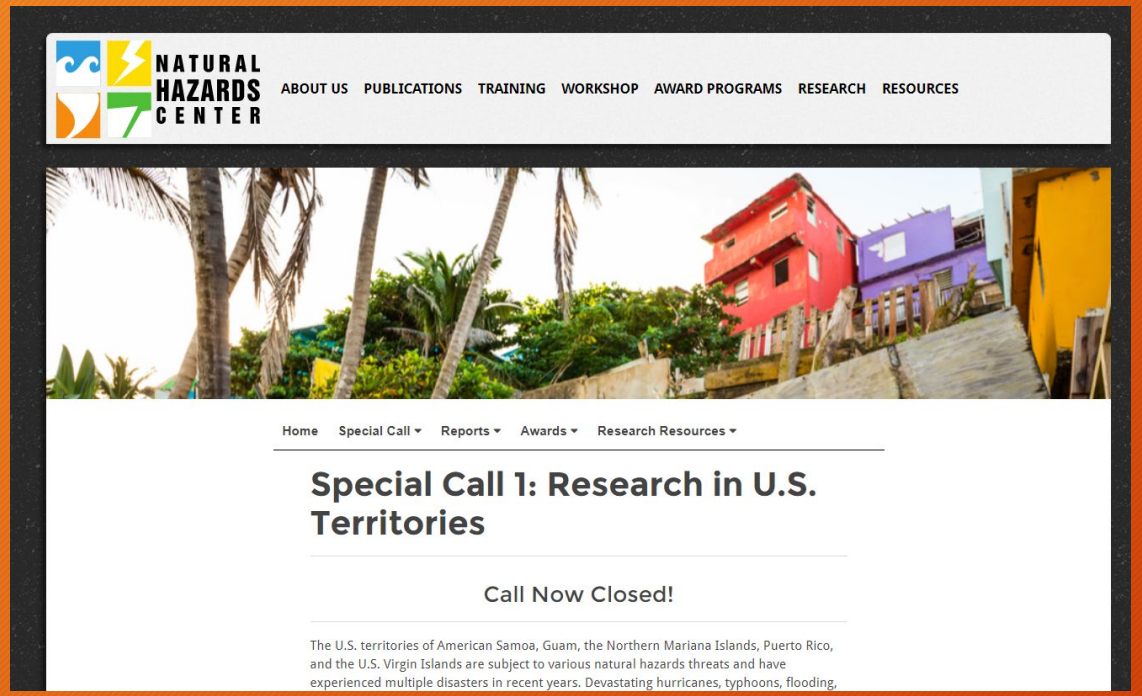








hazards.colorado.edu/news/award-news/quick-response



2020 – Special Call for Research in U.S. Territories in Partnership with the CDC and NSF

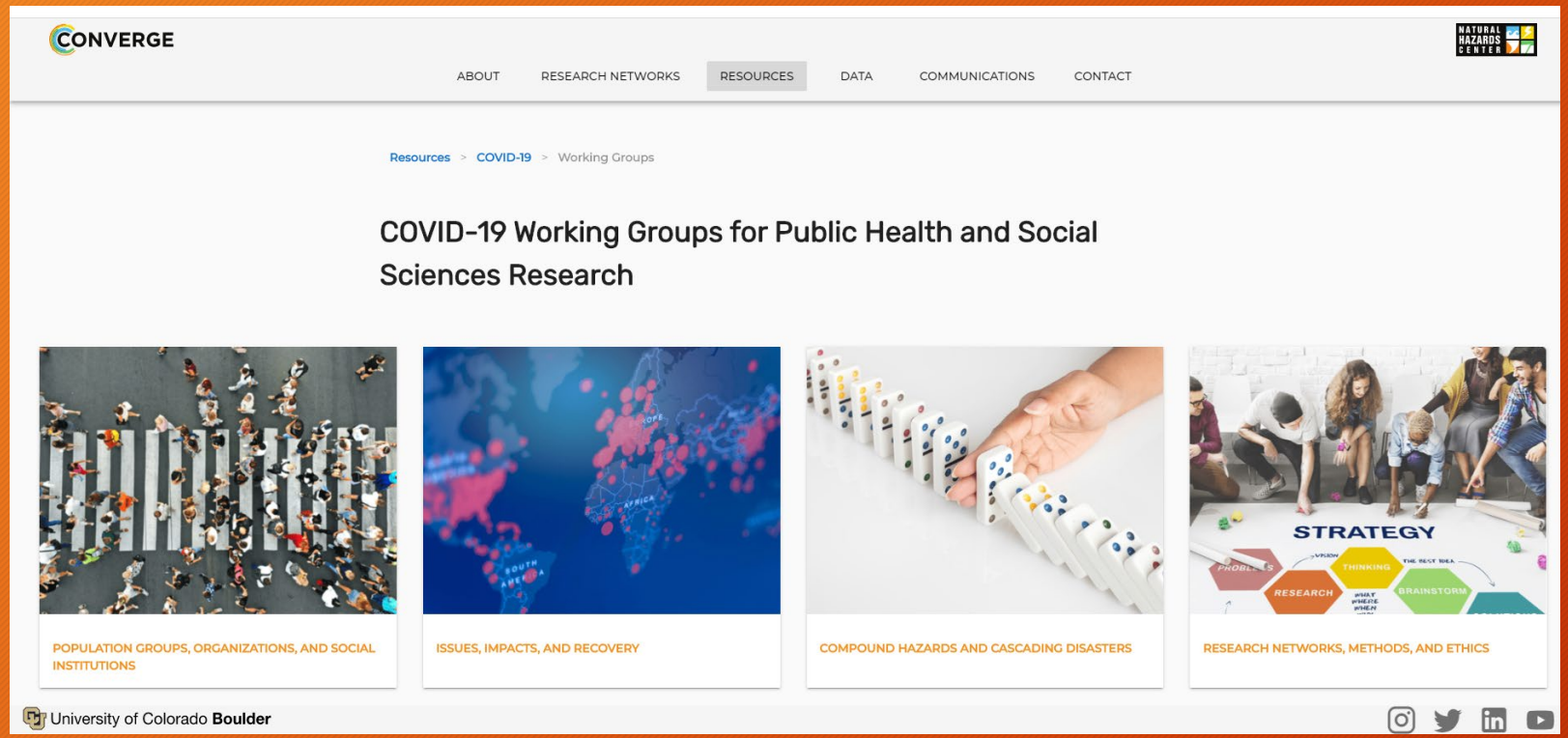
- 15 projects - $25,000 - $50,000
- 50+ public health and social science researchers from Puerto Rico, U.S. Virgin Islands, Guam, and the mainland U.S.
- 2 virtual convenings
- Final research reports w/ actionable summaries focused on public health implications

hazards.colorado.edu/research/quick-response-in-us-territories/funded-proposals

2020-22 – 4 Special Calls for Weather Ready Research in Partnership with the NOAA and NSF

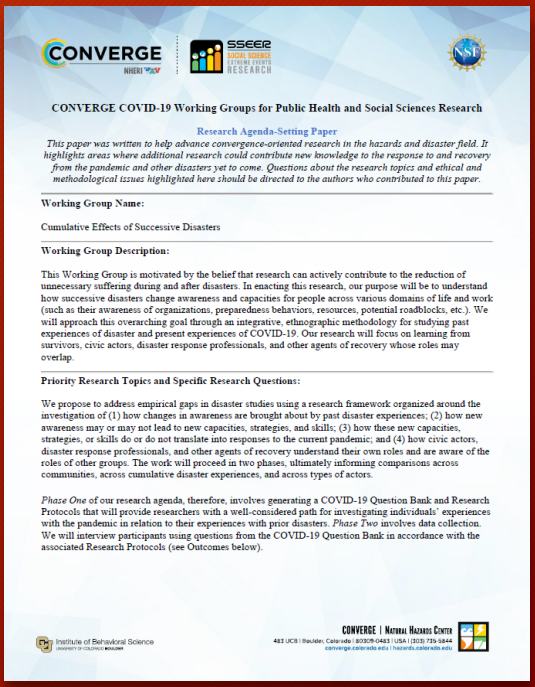
- 100 projects - $2,500 - $7,500
- Focus on weather-focused research as defined in the Weather Act
- Striving to build a social science Weather Ready Research Community
- Final research reports and data publications

hazards.colorado.edu/research/weather-ready-research/index



CONVERGE COVID-19 Working Groups for Public Health and Social Sciences Research

- 1 Special Call - $1,000 per Group
- Funded **90 Working Groups** involving over **1,300 Researchers** Globally
- **(1)** Population Groups, Organizations, and Social Institutions; **(2)** Issues, Impacts, and Recovery; **(3)** Compound Hazards and Cascading Disasters; **(4)** Research Networks, Methods, and Ethics
- Final Research Agenda Paper



CONVERGE COVID-19 Working Groups for Public Health and Social Sciences Research

Research Agenda-Setting Paper

This paper was written to help advance convergence-oriented research in the hazards and disaster field. It highlights areas where additional research could contribute new knowledge to the response to and recovery from the pandemic and other disasters yet to come. Questions about the research topics and ethical and methodological issues highlighted here should be directed to the authors who contributed to this paper.

Working Group Name:

Cumulative Effects of Successive Disasters

Working Group Description:

This Working Group is motivated by the belief that research can actively contribute to the reduction of unnecessary suffering during and after disasters. In enacting this research, our purpose will be to understand how successive disasters change awareness and capacities for people across various domains of life and work (such as their awareness of organizations, preparedness behaviors, resources, potential roadblocks, etc.). We will approach this overarching goal through an integrative, ethnographic methodology for studying past experiences of disaster and present experiences of COVID-19. Our research will focus on learning from survivors, civic actors, disaster response professionals, and other agents of recovery whose roles may overlap.

Priority Research Topics and Specific Research Questions:

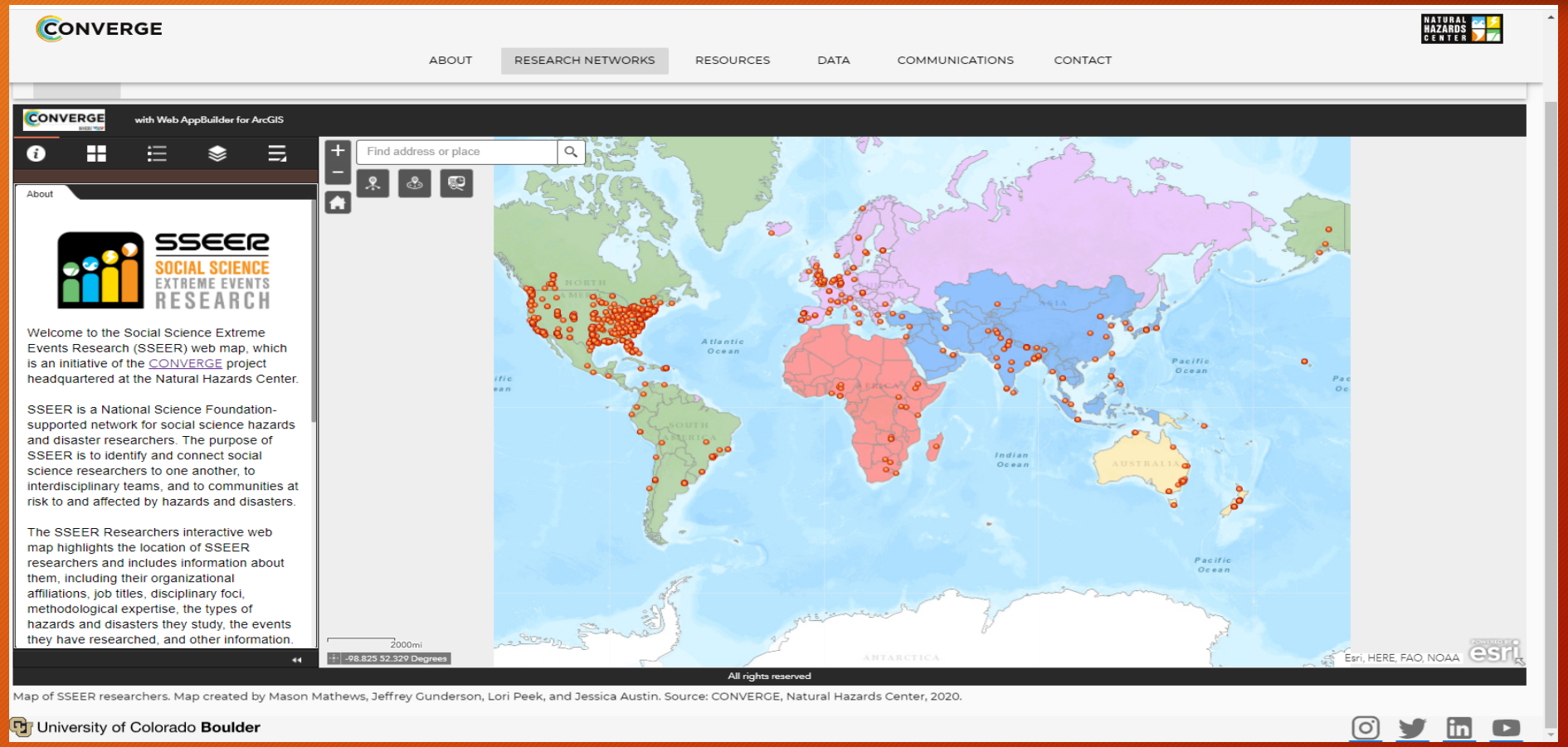
We propose to address empirical gaps in disaster studies using a research framework organized around the investigation of (1) how changes in awareness are brought about by past disaster experiences; (2) how new awareness may or may not lead to new capacities, strategies, and skills; (3) how these new capacities, strategies, or skills do or do not translate into responses to the current pandemic; and (4) how civic actors, disaster response professionals, and other agents of recovery understand their own roles and are aware of the roles of other groups. The work will proceed in two phases, ultimately informing comparisons across communities, across cumulative disaster experiences, and across types of actors.

Phase One of our research agenda, therefore, involves generating a COVID-19 Question Bank and Research Protocols that will provide researchers with a well-considered path for investigating individuals' experiences with the pandemic in relation to their experiences with prior disasters. *Phase Two* involves data collection. We will interview participants using questions from the COVID-19 Question Bank in accordance with the associated Research Protocols (see Outcomes below).

converge.colorado.edu/resources/covid-19/working-groups

Advancements in the Quick Response Research Program

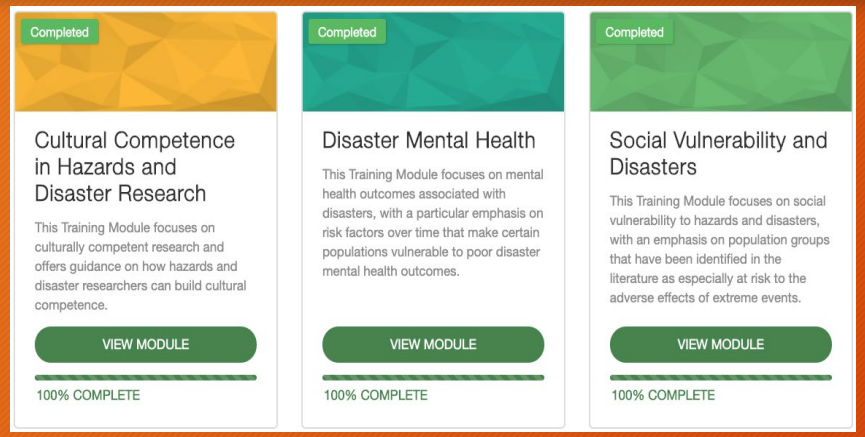
(1) Identifying and Mobilizing Researchers



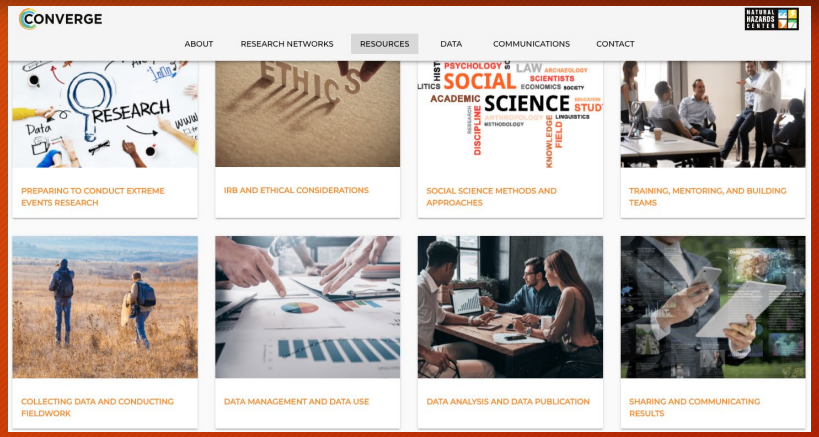
SSEER
SOCIAL SCIENCE EXTREME EVENTS RESEARCH

converge.colorado.edu/research-networks/sseer

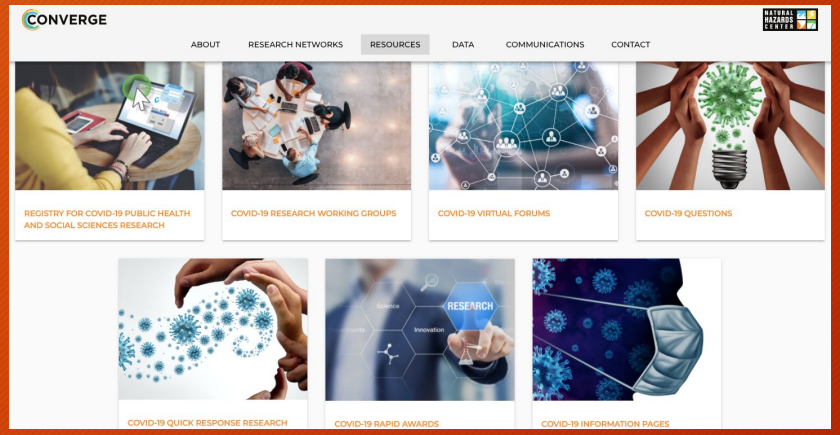
(2) Educating and Training Researchers



CONVERGE Training Modules



Extreme Events Research Check Sheets



Webinars, Workshops, and Event-Specific Resources

converge.colorado.edu/resources

CONVERGE

NATURAL HAZARDS CENTER

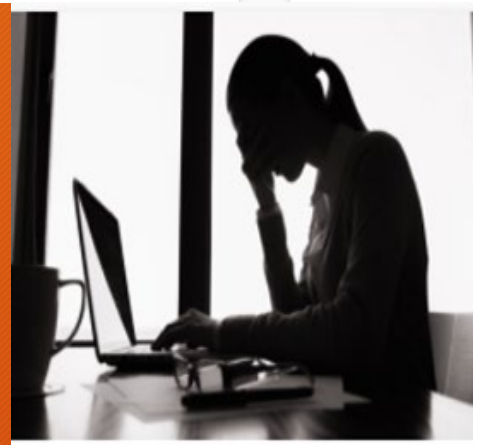
ABOUT | RESEARCH NETWORKS | RESOURCES | DATA | COMMUNICATIONS | CONTACT

SOCIAL VULNERABILITY AND DISASTERS

DISASTER MENTAL HEALTH

CULTURAL COMPETENCE IN HAZARDS AND DISASTER RESEARCH

INSTITUTIONAL REVIEW BOARD (IRB) PROCEDURES AND EXTREME EVENTS RESEARCH



CONDUCTING EMOTIONALLY CHALLENGING RESEARCH

UNDERSTANDING AND ENDING GENDER-BASED VIOLENCE IN FIELDWORK

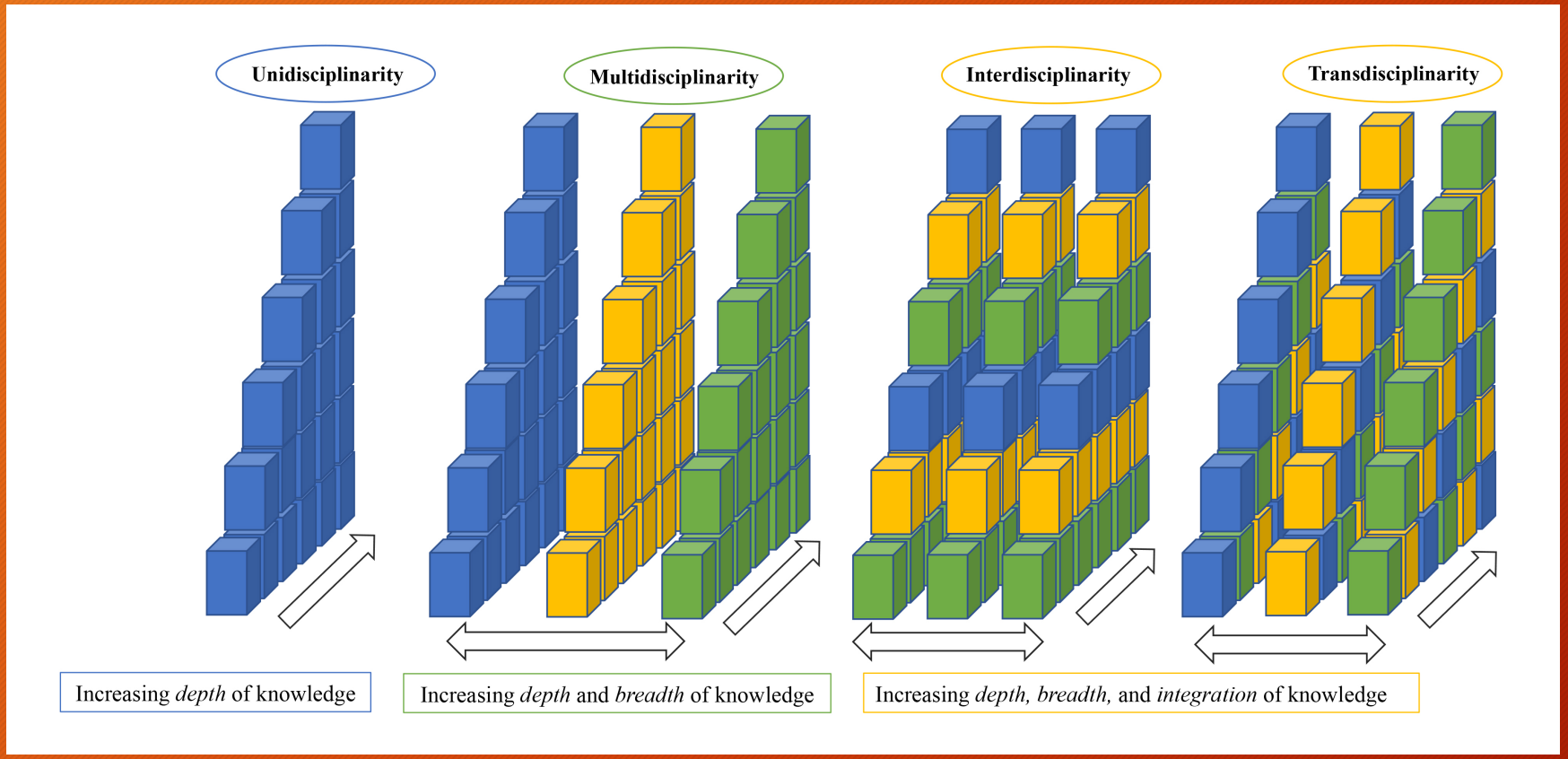
BROADER ETHICAL CONSIDERATIONS FOR HAZARDS AND DISASTER RESEARCHERS

NSF

- ★ Free!
- ★ Online
- ★ 30-60 minutes to complete
- ★ 3,000+ registrants to date!

converge.colorado.edu/resources/training-modules

(3) Advancing Interdisciplinary, Convergence Research



frontiers in Built Environment

ORIGINAL RESEARCH
published: 07 July 2020
doi: 10.3389/fbuil.2020.00110

A Framework for Convergence Research in the Hazards and Disaster Field: The Natural Hazards Engineering Research Infrastructure CONVERGE Facility

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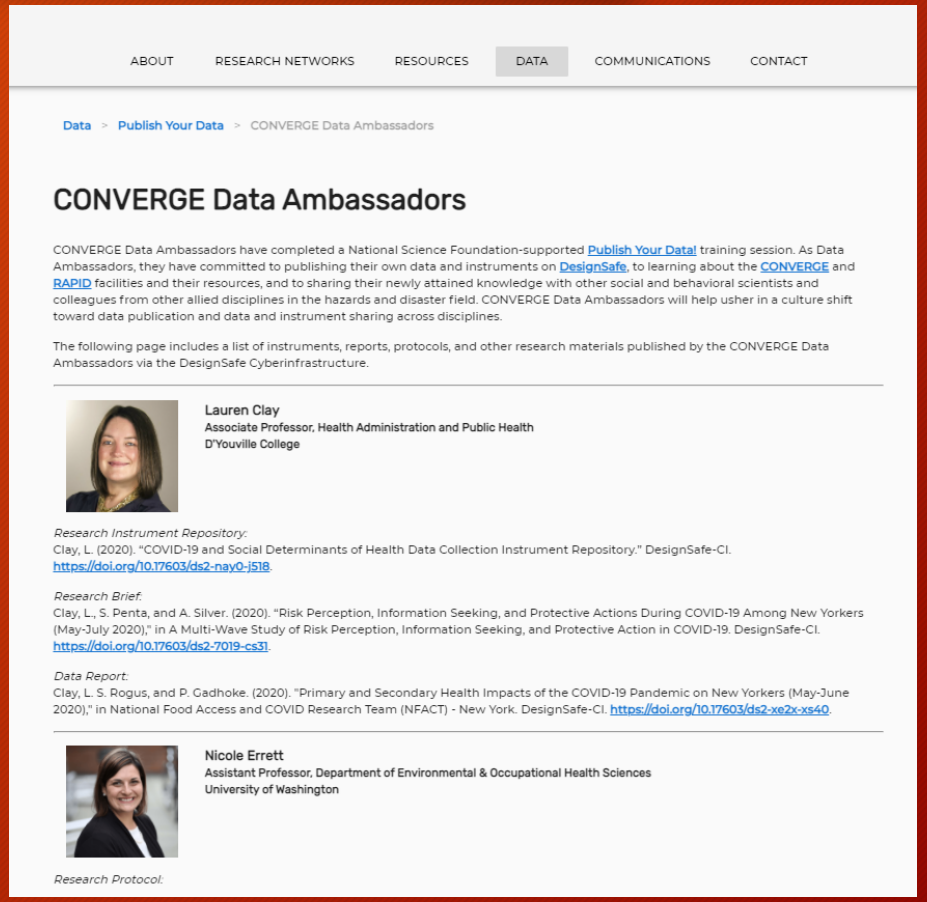
The goal of this article is twofold: to clarify the tenets of convergence research and to motivate such research in the hazards and disaster field. Here, convergence research is defined as an approach to knowledge production and action that involves diverse teams working together in novel ways – transcending disciplinary and organizational boundaries – to address vexing social, economic, environmental, and technical challenges in an effort to reduce disaster losses and promote collective well-being. The increasing frequency and intensity of disasters coupled with the growth of the field suggests an urgent need for a more coherent approach to help guide what we study, who we study, how we conduct studies, and who is involved in the research process itself. This article is written through the lens of the activities of the National Science Foundation-supported CONVERGE facility, which was established in 2018 as the first social science-led component of the Natural Hazards Engineering Research Infrastructure (NHERI). Convergence principles and the Science of Team Science undergird the work of CONVERGE, which brings together networks of researchers from geotechnical engineering, the social sciences, structural engineering, nearshore systems, operations and systems engineering, sustainable material management, and interdisciplinary science and engineering. CONVERGE supports and advances research that is conceptually integrative, and this article describes a convergence framework that includes the following elements: (1) identifying researchers; (2) educating and training researchers; (3) setting a convergence research agenda that is problem-focused and solutions-based; (4) connecting researchers and coordinating functionally and demographically diverse research teams; and (5) supporting and funding convergence research, data collection, data sharing, and solutions implementation.

Keywords: convergence research, natural hazards, disasters, interdisciplinary, transdisciplinary, training, Science of Team Science, research coordination networks

frontiersin.org/articles/10.3389/fbuil.2020.00110/full

(4) Publishing Findings *and* Research Instruments, Protocols, and Data



ABOUT RESEARCH NETWORKS RESOURCES DATA COMMUNICATIONS CONTACT

Data > Publish Your Data > CONVERGE Data Ambassadors

CONVERGE Data Ambassadors

CONVERGE Data Ambassadors have completed a National Science Foundation-supported Publish Your Data! training session. As Data Ambassadors, they have committed to publishing their own data and instruments on DesignSafe, to learning about the CONVERGE and RAPID facilities and their resources, and to sharing their newly attained knowledge with other social and behavioral scientists and colleagues from other allied disciplines in the hazards and disaster field. CONVERGE Data Ambassadors will help usher in a culture shift toward data publication and data and instrument sharing across disciplines.

The following page includes a list of instruments, reports, protocols, and other research materials published by the CONVERGE Data Ambassadors via the DesignSafe Cyberinfrastructure.

Lauren Clay
Associate Professor, Health Administration and Public Health
D'Youville College

Research Instrument Repository:
Clay, L. (2020). "COVID-19 and Social Determinants of Health Data Collection Instrument Repository." DesignSafe-CI. https://doi.org/10.17603/ds2-nay0-j518.

Research Brief:
Clay, L., S. Penta, and A. Silver. (2020). "Risk Perception, Information Seeking, and Protective Actions During COVID-19 Among New Yorkers (May-July 2020)," in A Multi-Wave Study of Risk Perception, Information Seeking, and Protective Action in COVID-19. DesignSafe-CI. https://doi.org/10.17603/ds2-7019-cs31.

Data Report:
Clay, L. S. Rogus, and P. Gadhoke. (2020). "Primary and Secondary Health Impacts of the COVID-19 Pandemic on New Yorkers (May-June 2020)," in National Food Access and COVID Research Team (NFACT) - New York. DesignSafe-CI. https://doi.org/10.17603/ds2-xe2x-xs40.

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Research Protocol:

converge.colorado.edu/data/events/publish-your-data/data-ambassadors

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CONVERGE
NHERI

hazards.colorado.edu/signup
converge.colorado.edu/signup

NATURAL HAZARDS CENTER

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