Coordinated Social Science, Engineering, & Interdisciplinary Extreme Events Research

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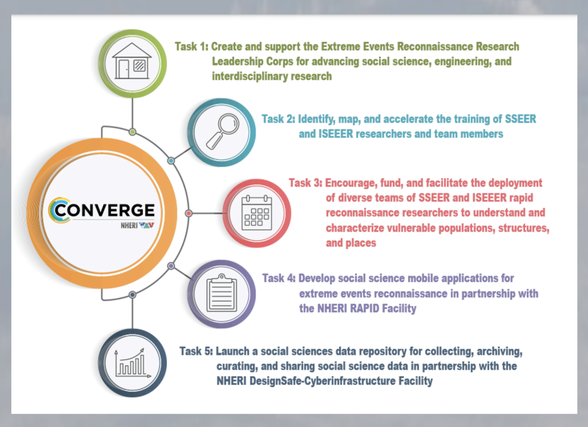
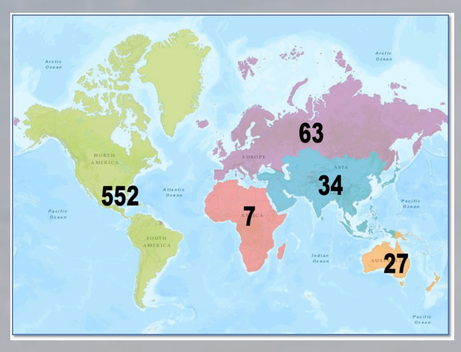
About

The CONVERGE Facility, funded by the National Science Foundation and headquartered at the Natural Hazards Center (NHC) at the University of Colorado Boulder, establishes and supports a new Extreme Events Research Leadership Corps that connects natural hazards researchers from different disciplines, develops best practice guidelines for reconnaissance research, and supports public communications in the event of a major disaster. CONVERGE advances social science, engineering, and interdisciplinary research and establishes and strengthens networks between disciplinary communities.





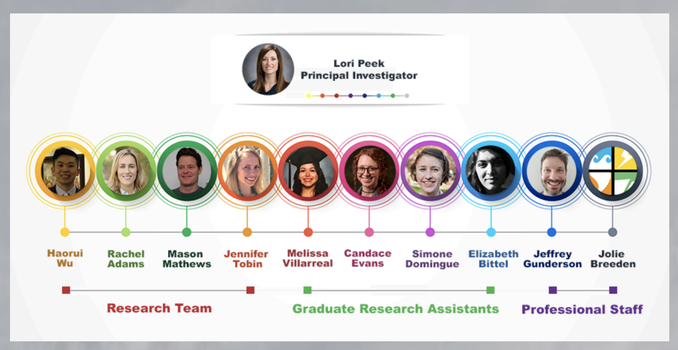
SSEER Map and Census

The Social Science Extreme Events Research (SSEER) map highlights the location of social science hazards and disaster researchers by geographic location and includes information about them, including their organizational affiliations and job titles. Future versions of this map will include researchers' disciplinary foci, methodological and topical expertise, the types of hazards and disasters they study, the events they have researched, and other information.

The NHC has also recently released the results of the SSEER 2018 Census. While this is not yet a complete census of the global social science hazards and disaster research community, it represents a first attempt to characterize the wide range of disciplinary skills and expertise among social scientists who study hazards and disasters.

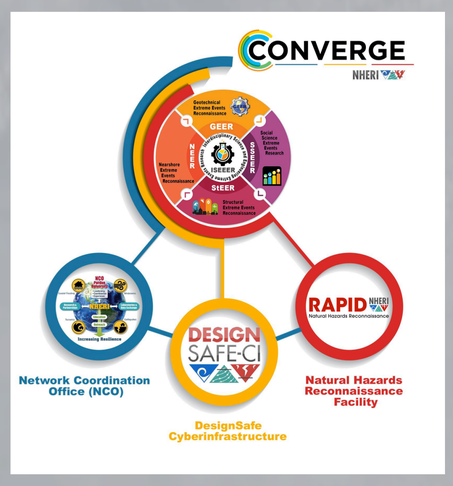
CONVERGE Team

Through the various projects and research tasks, CONVERGE allows for significant involvement of postdoctoral scholars, graduate students, and undergraduate students from several different disciplines at CU Boulder. Students have the opportunity to work as research assistants alongside the Principal Investigator, Lori Peek, as well as other staff, researchers, and faculty at the Natural Hazards Center. In doing so, CONVERGE is committed to training a diverse next generation of scientists, engineers, and leaders in the hazards and disaster research and mitigation fields. Moreover, CONVERGE facilitates relationships among these students and early-career professionals of various disciplinary backgrounds, encouraging collaboration among social scientists, engineers, and other interdisciplinary researchers.



Leadership Corps

One of the tasks of the CONVERGE initiative is to create and support the first-ever Leadership Corps for coordinating extreme events research and post-disaster field reconnaissance efforts. The Leadership Corps includes the principal investigators of the National Science Foundation-supported Extreme Events Research (EER) networks (GEER, SSEER, StEER, NEER, and ISEEER) and the leaders of the National Science Foundation-Natural Hazards Engineering Research Infrastructure (NSF-NHERI) Network Coordinating Office, RAPID Reconnaissance Facility, DesignSafe, and CONVERGE.



Research Networks

The National Science Foundation currently supports five Extreme Events Research coordinating networks, referred to as EERs. CONVERGE is home to two of these—SSEER and ISEEER.

Social Science Extreme Events Research (SSEER) identifies and connects social science researchers working in hazards and disasters to one another, as well as to affected and at-risk communities in order to amplify and advance the work they do.

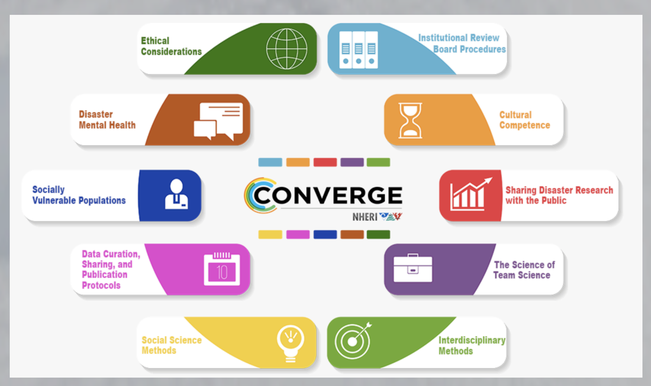
Interdisciplinary Science and Engineering Event Research (ISEEER) connects members of the National Science Foundation-supported Extreme Events Research (EER) networks. ISEEER also acts as a hub for resources dedicated to interdisciplinary methods and approaches to hazards and disaster research.

Briefing Sheets

The CONVERGE Quick Response Disaster Research Briefing Sheets Series is designed to provide researchers with information on best practices for conducting research at all stages of the disaster cycle. This series will consist of short, freely accessible publications that capture the complexities of extreme events and the history, ethics, and practice of quick response research.

Training Modules

The purpose of the CONVERGE Training Modules, which will be produced over the next five years, is to help prepare individual researchers and interdisciplinary teams to carry out extreme events research that is coordinated, comprehensive, coherent, ethically grounded, methodologically sound, and scientifically rigorous. The information in these modules is designed to accelerate the training of hazards and disaster researchers, with a special emphasis on students and emerging and situational researchers, as well as those interested in joining or leading interdisciplinary teams.



Partnerships

The Natural Hazards Center has several partnerships with the purpose of expanding the mission of CONVERGE.

Bill Anderson Fund (BAF) & NSF INCLUDES Minority SURGE Capacity in Disasters
These two nationally-recognized programs work to expand the inclusion of historically underrepresented students in the hazards and disaster fields, ensuring the diversity of our next-generation leaders.

NHERI RAPID Facility at the University of Washington
In collaboration with the NHERI Natural Hazards Reconnaissance Facility (RAPID), CONVERGE is working to develop the social science components for mobile post-disaster data collection via the RAPID app.

DesignSafe Cyberinfrastructure at the University of Texas-Austin
CONVERGE is partnering with DesignSafe to develop the first ever social science and interdisciplinary data model for publishing hazards and disaster data.

Center for Environmental Journalism
This partnership helps the Center to craft messages and communicate about research team deployment during crises, as well as issue lists of subject matter experts and of rapid response researchers who have deployed to events.

Acknowledgements

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