

SSEER Virtual Forum: 2019 California Earthquakes **Participant Questions, Shared Information, and Resources**

Questions

Question from Jeannette Sutton: Can you please share the methods that you have used to collect the data for each of the phases?

Answer from Erica Fischer and Manny Hakhamaneshi: In phase one, we are looking mostly to news media and Twitter/Instagram accounts of various agencies and government officials. We also receive immediate reports from local entities (e.g., universities), which are distributed to the engineering community. We can track live recovery information posted by utility companies, as well as incident reports from fire departments. Phase two is very similar to phase one; however, there is more data available. If they are available, we also use draft reports from relevant agencies (e.g., United States Geological Survey). In phase three, we still use those reports, but we also examine local codes and regulations, and reach out to local contacts (e.g., water officials, sewer officials, etc.). In phase four, we collect data from reconnaissance teams. In phase five, we have processed the data from reconnaissance teams and generally have more reports available from official agencies, but we also look into how local codes and regulations have potentially changed, as well as local data such as population displacement.

Question from Bertha Cecilia Garcia Cienfuegos: Can we integrate this type of perspective into projects from Peru?

Answer from Erica Fischer and Manny Hakhamaneshi: Absolutely; VERT works with researchers and activates for events across the globe. *(Please see the “Resources” section for the VERT sign-up sheet.)*

Question from Lauren Clay: In the business continuity or other data collected, do you have information on food stores? If so, how many, and is it a comprehensive list?

Answer from Erica Fischer and Manny Hakhamaneshi: We haven't homed in on specific categories of businesses to look at how many were damaged. However, we did see some pictures of stores that were damaged due to products falling off shelves.

Question from Nira Agrawal: Can you please talk about the demographics in the impact area?

Answer from Erica Fischer and Manny Hakhamaneshi: We generally prepare teams with demographic information later in the process. We haven't looked much into the demographics of the Ridgecrest area, but we do know that many of the buildings are newer. We also have some demographics of Trona: female 55%, male 45%; average age 30-32; average household income \$55K, individual income \$22k.

Question from Sara Hamideh: Are resources available for collecting primary population dislocation data through quick surveys?

Answer from Jennifer Tobin: The Natural Hazards Center's Quick Response Research Grant Program offers \$2,000 to \$5,000 grants to collect perishable data after an event. Researchers can apply anytime. Also, the new Center's new Mitigation Matters Research Grant Program will offer \$1,500 to 2,500 grants to support mitigation related data collection



or analysis activities. (Please see the “Resources” section for links to the Quick Response and Mitigation Matters programs.)

Question from Sara McBride: There was a town hall last night...do we have any feedback or questions or concerns from residents about it?

Answer: What I heard as a primary concern was aftershocks as residents wanted to know if it is safe to return to their residence. The USGS probabilistic aftershock model was shared with them, and the probability of another >6 earthquake in the next week is less than 10%.

Question from Shelley Olds: From the preparedness perspective, is anyone taking an assessment of chaos (and damage) within people’s homes? I’m thinking about how to encourage preparedness within a home.

Answer: We’re unsure if anybody has looked at this for this event specifically, but research has been undertaken about this topic, and specific to earthquakes. We encourage members to get in touch with Shelley if you have specific information.

Shared Information

Comment from Mirelsa Modestti: In 2017, I led research on communication during and after Hurricane María in Puerto Rico at Universidad del Sagrado Corazón. At present, I am starting a research project on tsunami knowledge, preparedness, and communication in Puerto Rico's 44 coastal municipalities. I am interested in investigating government communication and civic education regarding preparedness, family plans, and personal response in earthquake prone areas. I would love to be involved in any research on that subject in California.

Comment from Ann Gordon: We’ve found that Southern California residents are not familiar with drop, cover, and hold on. A lot of folks are still standing in doorways, running out into the street and they report feeling fear and panic mostly. [Note from SSEER: This is actually an important area for further investigation among social scientists. In particular, given the amount of messaging that has occurred in Southern California, it is a crucial empirical question to understand how awareness of recommended protective actions - and the propensity to take them - varies by region and also by population demographics and social context.]

Comment from Sharyl Rabinovici: I’m a Bay Area-based social scientist studying public policy regarding disasters. My interests are performance of single-family homes, and changes in attitudes about mitigation or insurance after these experiences, and earthquake early warning (potential behavioral response, potential benefits, etc., especially in this rural area). It would be nice for this group to consider emerging questions, followed by a few direct calls among those interested to advance issue-specific thinking.

Comment from Mark Benthien: The Earthquake Country Alliance and Great ShakeOut Earthquake Drills (coordinated by the Southern California Earthquake Center) are very interested in studies of self-protective actions, populations with disabilities and access and functional needs, and other vulnerable population aspects, and how neighbors came to each other’s aid. Such information will inform our messaging in California and elsewhere.



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Comment from Nicole Errett: We are starting a new public health working group with EERI's Learning from Earthquakes program. If you are interested in public health reconnaissance in future earthquakes, please contact me: nerrett@uw.edu

Resources

- Presenter contact information
 - Lori Peek (Principal Investigator, SSEER): lori.peek@colorado.edu
 - Erica Fischer: erica.fischer@oregonstate.edu
 - Manny Hakhamaneshi: manny.hakhamaneshi@dot.ca.gov
 - Jennifer Tobin: jennifer.l.tobin@colorado.edu
- Join Virtual Earthquake Reconnaissance Team (VERT):
<https://docs.google.com/forms/d/1LahBBEuP0gUXazYBZ7tLmx2JCBmO8F0oG2FG0IibRWo/edit>
- Natural Hazards Center Quick Response Research Grant Program: <https://hazards.colorado.edu/research/quick-response>
- Natural Hazards Center Mitigation Matters Research Grant Program:
<https://hazards.colorado.edu/research/mitigation-matters>
 - Sign up to receive Small Grant Program alerts about special calls for proposals:
<http://hazards.colorado.edu/signup>
- SSEER Sign Up: converge.colorado.edu/join-sseer
- SSEER Researchers Interactive Web Map: <https://hazards.colorado.edu/sseer/researchers-map>
- SSEER 2018 Census: <https://converge.colorado.edu/research-networks/sseer/researchers-census/2018>
- Offer of resources from Ann Gordon: I am the Director of the Babbie Center at Chapman, in the heart of Orange County. I would like to offer VERT, SSEER, and other researchers our campus resources, including office space and housing, free of charge. We can host on short notice. Also, we are collecting data in the Ridgcrest area.
Email: agordon@chapman.edu
- From Mark Benthien: Consensus-developed messaging for what to do before, during, and after an earthquake:
<http://www.earthquakecountry.org/sevensteps>

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