

Partner Profile – Evan Reis

Evan Reis is the Executive Director and Co-Founder of the US Resiliency Council (USRC).

Reis co-founded the nonprofit in 2011 as a way to educate building stakeholders and the public about the gap between the growing sustainability movement and true resilient-based design. His goal is to teach others that many buildings are built to have a low impact on the environment, but they aren't built for the environment to have a low impact on them.

Reis has a bachelor's and master's degree in structural engineering from Stanford University. He played a key role in establishing the university's long-term seismic resilience program following the 1989 Loma Prieta Earthquake.

A: The USRC was founded in 2011 as an outgrowth of a committee that was developing a way to rate buildings relative to their earthquake performance. Following a FEMA funded workshop that brought together stakeholders such as, owners, lenders, insurers, government, designers, and builders, it was clear that there was a strong demand for a credible rating system. The rating system needed to consider damage and recovery time in addition to building safety so that rational, social, and economic decisions could be made about design and retrofit.

The USRC was established, much like the USGBC was for sustainability, to provide a technically credible, objective, and meaningful process for measuring building performance in earthquakes and other natural hazards. It was also established to promote the value of investing in more resilient design to both the public and private sector.

The USRC received technical support from more than 40 leading earthquake engineering companies, as well as all the major earthquake engineering professional organizations including: ATC, EERI, PEER and SEAOC. Today the USRC has more than 75 members and is one of the key contributors to the growing discussion of resilience nationwide.

Q: How did you get interested in research/disaster safety/response and recovery/resilience?

A: Following the 1989 Loma Prieta Earthquake, I was heavily involved in seismic retrofit work at my alma mater, Stanford University. I was exposed directly to owners and the decision-making process around investing in rehabilitation of buildings. This gave me a broader perspective of how decisions are made, what measures of performance are important to owners, and that to be an effective consultant, I needed to look at my involvement with clients beyond just the completion of an individual project.

I discovered I could be of even more value if I could advise them on topics such as, how to structure earthquake insurance programs, or how to establish post event business continuity programs.

Q: What do you see to be the future of earthquake science/engineering/research/outreach/response and recovery to increase resiliency? What do you think is moving the cause of resilience forward?

A: Traditionally, the engineering profession, and to a large extent the engineering research sector, has been focused on isolated projects, whether they be the design of a building, testing of materials or development of new analysis tools. This has often pigeonholed the

community in a “back office” that neither lets the public see the amazing things we are doing, nor exposes the young people in our profession to the community, national, and global impact our professions have. The result is lower fees, more competition and rapid attrition of engineering students and young professionals.

From the USRC’s perspective, the future of earthquake engineering and science will be to move from prescriptive or even performance-based design of individual buildings, to resilience-based design. A resilience-based design looks at the central place that building performance, and those who design those buildings, have in the ability of cities, companies and families to not only survive, but thrive after extreme events. Tying buildings to the broader social and economic well-being of stakeholders is key to raising demand for more resilient structures, increasing the profile and value of engineers and researchers, and motivating young people to stick with this “noble profession.”

Q: Can you tell us about a specific project your organization is working on in earthquake safety/science/engineering/research/resilience/outreach field?

A: The US Resiliency Council’s mission includes bringing all building stakeholders together to identify practical, cost effective strategies to promote resilience-based design. To that end I am excited about two efforts that the USRC will be working on in 2019.

The first, in a collaboration between Fannie Mae and the Enterprise Community Partnership, the USRC will explore establishing a pilot *Resilience Advantage Mortgage*, a concept developed by the National Institute for Building Sciences. This will entail neighborhoods in Los Angeles receiving mortgage rate reductions for building affordable, multifamily housing to meet resilient standards. This could become a model going forward for other communities.

The second project is a policymaker’s forum that will be held in Vancouver in October that will bring together leaders from the Pacific Northwest, to work intensely over a day to explore and develop strategies that combine lessons learned and success stories from the attendees and subject matter experts. The event will be co-hosted by the USRC, EERI and the BC and Vancouver local governments.

Q: Do you have any other comments or words of wisdom for our readers?

A: The mantra that the USRC keeps in mind when building support for resilience is “Fear + Hope and a Plan.” As important as it is for the public to be aware of the risks of earthquakes and other natural hazards, if real action is going to be taken to reduce those risks, it is just as essential to assure people that there are ways to achieve success that are cost effective, supportable by all stakeholder groups, and mean that they don’t need to just throw up their hands in resignation and pass the problem on to another generation.