



## Hazard Reduction & Recovery Center

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**“Household adjustment to earthquake hazard: A review of research.”**

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Seismic risk has become an increasing concern since the 1971 San Fernando earthquake. Government at all levels has tried to reduce risk, but households also need to act to limit casualties, property damage, and social/economic disruption. Hazard reduction provides modest protection at impact, seen through strapping water heaters to walls before an earthquake to prevent property destruction. On the other hand, emergency preparedness supports active reactions after impact, like establishing supplies of bottled water and canned food before an earthquake, which allows people to survive disruptions in food distribution.

### **Findings**

The study looked at 23 studies, confirming theoretical predictions that households' adoption of earthquake hazard adjustments is connected with their understandings of the danger and different adjustments, demographic traits, and social influences. It finds that adopting seismic adjustment increases after a warning of an expected earthquake. Citizen beliefs about the elements that influence their decisions are only correct in some scenarios. Reduction and preparedness adjustments are influenced by previous hazard responses, especially information seeking. According to the Protective Action Decision Model, awareness of a threat is introduced by environmental cues like sights or sounds, the observations of others, or messages from informal, news media, or official sources that are seen in terms of expertise and trustworthiness. Threat perception inspires people to look for a response for protection of themselves and property without changing normal activities.

### **Implications**

Perceived personal protection responsibility had a big effect on the adoption of seismic adjustments. It is important for future research to recognize the differences between past adjustments and goals of adopting future adjustments. Individual states are usually most directly connected to seismic adjustment because the activity could only be temporary. Adjustments are usually positively correlated if the information and other resources gained in the process of adopting one adjustment make it easier to do so. This implies that an adjustment perceived as having more success and less resource requirements might serve as a starting point to adoption of adjustments that are seen as less efficient and more resource heavy.