

# THE STATE OF KNOWLEDGE IN THE SOCIAL SCIENCES ABOUT HOW TO MOTIVATE THE PUBLIC TO PREPARE FOR DISASTERS

Dennis S. Mileti  
Professor Emeritus  
University of Colorado at Boulder  
Cell: 303-520-3400  
Email: dennis.mileti@colorado.edu

Where we are today, based on the conclusions from the cumulative social science research record, is that relatively strong, conclusive, and replicated science-based evidence exists regarding what it takes to teach the public what they need to know, and how to motivate the public to take actions to prepare for possible future hazardous events and disaster. This record of scientific evidence provides a more effective basis for increasing public knowledge and motivating public preparedness than alternative popular approaches, for example, those based on good intentions, intuition, and limited personal experiences. A synthesis of what is known based on the social science research evidence accumulated to date is presented in this paper. The key question is behavioral: “how do you help people in the public to stop, listen, and get ready for future disasters that most of them think won’t really happen, and, if they do, will happen to other people and not them?” Most people think that way because they think that they are not at risk to high consequence low probability events. This perception of being safe is reinforced every day that a disaster does not occur.

**Preparedness behavior motivated most by disaster experience.** Perceptions of “being safe” change to perceptions of “being at risk” immediately after a disaster. In fact, experiencing a disaster has the strongest effect among all factors to motivate people to prepare for future disasters. Research on what has been popularized as “the window of opportunity” has found that the strong effect of experiencing an actual disaster on motivating survivor preparedness declines as time from the event passes because perceptions of safety re-emerge and rise to pre-disaster levels typically within an approximate two-year period after the event.

**Two key motivators in the absence of disaster.** In the absence of an actual disaster, the social science research record identifies two other factors as the strongest motivators *by far* of household preparedness action-taking. The first is “information received from official sources” about preparedness. To be effective, information must: come from multiple sources, be communicated over multiple channels of communication, focus on what actions to take, explain how those actions cut future losses, and be consistent (say the same thing) across the different messages received. The role of consistency across different messages in motivating public preparedness was not evidenced in a recently completed major study on public preparedness, but this is not reason to exclude it from the list of important factors to consider since its importance has been documented in multiple other studies. The second factor is

“unofficial information observed, heard or received”. The impact of “seeing” others prepare and mitigate is generally a stronger motivator for preparedness and mitigation action-taking than receiving information about the need to take actions.

**How people convert preparedness information received into preparedness actions.** A recently completed “mega-study” of motivating public preparedness provided two major contributions to social science knowledge. First, the study was based on all the households in the U.S., and it confirmed the findings of studies previous studies that were performed on small populations in unique parts of the country. This lends great increased validity to existing conclusions. Second, it clearly identified the general social process that people go through to convert received preparedness information into actual household preparedness actions. This process can be described as follows.

***Information received*** and ***information seen*** are the two key factors that motivate the public to prepare. These two factors have “direct” effects on increasing household preparedness and mitigation. The more people hear, read, and see, the more they do to get ready. These factors also “indirectly” affect household preparedness. They do this by increasing people’s ***knowledge*** and their perceived effectiveness or ***efficacy*** of recommended actions, and by increasing discussions (sometimes called ***milling***) with others about earthquake preparedness and mitigation. These factors, knowledge, perceived effectiveness, and milling, in turn, also increase household preparedness and mitigation.

### **Conclusions On The Importance of Providing Information**

These conclusions are very good news. In the absence of an actual disaster (which is the strongest way to get people’s attention and motivate preparedness actions), the two major determinants of household preparedness are both “pliable.” Policies and programs can be developed that increase information dissemination in ways that increase earthquake preparedness and mitigation. Moreover, the information to action-taking relationship is linear: the more information disseminated to households, the more they prepare and mitigate; the less information, the less preparedness and mitigation.

In comparison to information received and seen, most other factors do not matter much. Other factors either are not related to household preparedness and mitigation, or their effects either disappear or remain but are reduced to such small levels when the information factors just described are included and “controlled” in multivariate statistical models. These other factors include the increased probability of a future event (which is certainly useful to know about for other reasons) and demographic characteristics (which can constrain what people can afford, but have little effect on readiness motivation).