

Handout 6.1: Class Discussion Assignment 6.1

Instructor note: *In general, there are no right or wrong answers for most of these questions, as the main motivation for this exercise is to foster interaction and to emphasize the points made throughout the lecture. This discussion should require 30 minutes to one full session. Answers are provided on the following page. The answer provided for Question 1 is extensive and also constitutes important material. The article “Sociological Theories and Disaster Studies,” by Dr. Robert A. Stallings is used to address this question. The instructor may wish to provide the students with a copy (electronic or hard copy) of this article available from: <http://www.udel.edu/DRC/preliminary/249.pdf>.*

Handout 6.1: Class Discussion Assignment 6.1

1. How should we as emergency managers judge the “value” of earthquake research? How is earthquake research generally perceived by the public? Is the public generally aware of such research?
2. Is it important to communicate earthquake research efforts to the public for hazard reduction? Why? Explain.
3. What should current earthquake-related research be focusing on? What should be the mission of this research?
4. What if we could predict earthquakes within a short time period, i.e., days or hours? How might this reduce hazards and losses? What would be the implications of issuing false alarms for a predicted earthquake? How broadly should real-time data (i.e., from TriNet or ShakeMaps) be disseminated? Who should pay for the data collection systems?

Handout 6.1 Class Discussion Assignment-Answer Key

1. How should we as emergency managers judge the “value” of earthquake research? How is earthquake research perceived by the public? Is the public generally aware of such research?

Answer: See attached article on the following page: *Earthquake Research Funding - A Perception Problem*.

2. Is it important to communicate earthquake research efforts to the public for hazard reduction? Why?

Answer: Yes. Hazard reduction becomes more of a reality if this is made a public value. One of the most important issues is hazard intrusiveness – the overall amount the public is informed about and personally identify with specific hazards – as accomplished by education and outreach programs. This concept will be discussed more in Session 13 on risk communication.

3. What should current earthquake-related research be focusing on? What should be the mission of research?

Answer: Of course, hazard reduction should be a guiding light for most research activities in this area.

4. What if we could predict an earthquake within a short time period, e.g., days or hours? How would this reduce hazards and losses? What would be the implications of issuing false alarms for a predicted earthquake? How broadly should real time data (i.e., from TriNet or ShakeMaps) be disseminated? Who should pay for the data collection systems?

Answer: Prediction of earthquakes will save lives and some property, as people can locate to safer areas and shut down essential facilities. Response activities could be in place and better organized. However, damage to existing structures and lifelines will still be severe and widespread if these facilities have not been mitigated. Consequently, steady, continued efforts to mitigate existing problems areas and be properly prepared are important.

The TriNet data system is new, and data ownership, etc. has not been firmly established. Perhaps a shared cost among all benefactors would be a reasonable way in which to fund this and similar programs.

False alarms can possibly erode credibility. A case history on this issue will be presented in Session 13.

Earthquake Research Funding - A Perception Problem

(Detailed answer for question 1 above as summarized from Objective 6.5 in the course notes)

The following comments were adapted from a presentation “Sociological Theories and Disaster Studies,” by Dr. Robert A. Stallings (Dept. of Sociology, University of Southern California) , 1997. This paper was presented as the inaugural Distinguished Lecture on Disaster and Risk at the Disaster Research Center, Department of Sociology and Criminal Justice, University of Delaware, Newark, 17 April 1997. The presentation is available from: <http://www.udel.edu/DRC/preliminary/249.pdf>.

Why is there greater public concern for other threats that seemingly have less potential for future harm?

- If the “experts” are correct, we can expect nearly the same number of people to die in a single worst-case Los Angeles earthquake (the “big one”) as are murdered in the U.S. in a single year (about 20,000 people); the dollar loss to exceed the amount spent annually on the criminal justice system in the U.S. as a whole (about \$100 billion dollars); and the U.S. Gross Domestic Product (GDP) to drop instantly by five percent. Yet, even in California there is vastly greater public concern for crime than for the threat of earthquakes, or for all natural hazards combined, for that matter. Put differently, people's reaction to crime identifies it as a social problem, while their treatment of the earthquake threat suggests that it is not a social problem despite the apparent similarities in the images of each.

How can we explain this difference in perception?

- **Because people identify with crime and have awareness about their risks; they see earthquakes as “natural” problems, but they see crime as a “social” problem.**

Why is this true?

- As discussed by Stallings (1995), the earthquake threat in the US has generally been promoted by what he refers to as the “earthquake establishment” made up of technocrats and bureaucrats, including earth scientists in the National Academies and government agencies, engineers, academicians, and mid-level federal bureaucrats (primarily in the USGS, NSF, and FEMA). In other words, the advocates of the earthquake threat are “insiders” rather than “outsiders,” unlike most other problem-promoting groups. **Members of the earthquake establishment have access to decision-makers, but they themselves have no power. The threat has official recognition but low priority.** Whatever public policy successes the movement has enjoyed have been accomplished without grassroots support or a strong core of constituents (except for brief period in the 1980s). In other words, earthquake safety insiders have no external power base. Not surprisingly, the outcome of their claims-making activities to date has been less than desirable.