COMMENTS ON THE HISTORY
OF EARTHQUAKE CASUALTY ESTIMATION

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It is a pleasure to have this opportunity to give my comments on the history and background of earthquake casualty estimation. It is also an opportunity to meet again with some of the persons who have been actively engaged in these endeavors for about 20 years.

Earthquake Casualties and Vulnerability Studies

To my knowledge, the first major report which included estimated earthquake casualties was prepared by NOAA for the Office of Emergency Preparedness in 1972 under the title of "A Study of Earthquake Losses in the San Francisco Bay Area: Data and Analysis." Consultants to this study who are also invited participants to this workshop include Frank McClure and Henry Lagorio. Robert Olson was the project officer for the Office of Emergency Preparedness, now known as FEMA.

I well recall the beginnings at a meeting in Santa Rosa, California, where some of the consultants met with Bob and his boss, Mr. O'Callaghan (who later became Governor of Nevada). These were primeval days in vulnerability studies. For example, high officials of one public utility exerted considerable pressure on us to remove all statements regarding possible damage to their facilities since their designs were earthquake resistive. The need for death and injury estimates were a necessary component of this and subsequent vulnerability studies, but persons with this kind of experience were unknown. The casualty estimates were developed principally by the design professionals, that is, persons such as structural engineers and architects.

About 90 pages of the 1972 study were devoted to earthquake casualties, impacts on hospitals, nursing homes, blood banks, and health care professionals. The available data and methodology development for quantifying the losses and their impacts were stated in that report. As head of the consulting group, I can say that the casualty estimates were the best available, but certainly very far