ABSTRACT OF THE DISSERTATION

Toward an Understanding of the Gap between Earthquake Science and Local Policy in Orange County, California

by

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The objective of this study is to measure the extent to which earthquake-science was being used for earthquake loss mitigation by local-level governments in Orange County, California as of 2003. A list of earthquake-science research products that have usefulness in mitigating earthquake losses may be compiled using (1) General Plan Guidelines issued by the State of California’s Office of Planning and Research, and (2) the Communication, Education, and Outreach Program of the Southern California Earthquake Center. In the context of local-level planning, the safety element chapter of each city’s general plan is the overarching document that contains text, graphics, and figures that together comprise a set of programs, goals, and policies for the purpose of mitigating earthquake losses. By comparing the list of research products to the content of safety elements, this research moved toward an understanding of the extent and nature of the gap between science and policy, in the context of local government. The study followed a descriptive line of empirical inquiry procedures by administering an enumerative survey to a cross-section of one group of archived safety element documents whose analyzed content was recorded in a tabular review format. A non-probability,
purposive sample of thirty-four participants was selected for this study. Each participant represents one of the thirty-four official cities in Orange County, California as of the end of 2003. The content of each participant’s safety element chapter was analyzed in two phases. The first phase determined which earthquake-science research products were utilized by cities. The second phase extracted the programs, goals, and policies from the safety elements and then classified them according to emergent categorical schemes, which were enumerated in a descriptive, summary form. This study (1) identified the general use of earthquake-science research as a group of products used by city planners, (2) enumerated the extent to which specific products were being used, and (3) summarized the general status of cities’ safety elements regarding the expectation of being periodically revised and updated.