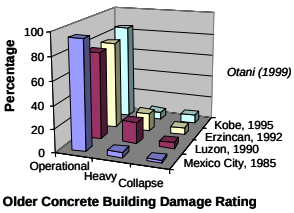
Mitigation of Collapse Risk in Older Concrete Buildings

A NEESR Grand Challenge Project

Project Aim



Casualties in earthquakes are concentrated in a few building types, including older nonductile concrete. This project will improve engineering and policy tools to target truly dangerous buildings for mitigation.

Education and Technology Transfer

Courtesy PEER Education Program

The NEES-GC project will include an undergraduate student intern program to engage a diverse group of students in research activities.

Working with EERI and ATC, we have established the Concrete Coalition to assist in developing inventory and policy data and to advocate risk reduction activities for older nonductile concrete buildings.

Project Team

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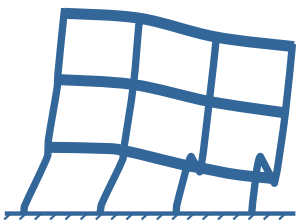
Research

- *Regional pilot studies based on improved inventories will define the risk.*

- *Laboratory and field experiments on columns, joints, and complete soil-foundation-structure systems will define collapse tendencies of existing construction.*



- *Improved collapse simulation capabilities will be developed, including improved models useable in engineering practice.*

Courtesy T. Kabeyasawa

- *Exploration of simple and inexpensive retrofitting techniques to prevent collapse.*

The Pacific Earthquake Engineering Research Center
headquarters at the University of California, Berkeley
for more information see http://peer.berkeley.edu

Poster by J. Moehle (UCB)