

Centralized Data – Earthquake Engineering

centralized data on lessons learned and research – public and private

The internet and other communication advancements provide the opportunity to share effectively observational data from post-earthquake reconnaissance activities and measured records from carefully performed laboratory experiments. The effective sharing of data would allow a community of researchers to build upon each others' work and enable engineers and scientist to use collected data to evaluate numerical simulations of earthquake processes and effects.

To enable effective sharing of data, a robust and efficient data collection, documentation, archiving, and retrieval system is required. Efforts to collect field data and experimental research must be supported to produce the data required to advance earthquake preparedness. Funding for these activities must support and require comprehensive documentation of the field studies or experiments. The archiving and retrieval methodologies should allow straightforward and efficient insertion and withdrawal of data.

NEES has initiated an experimental database system for NEES experiments. All federally funded experiments should be required to submit data to NEES so that the Nation can develop its experimental database in earthquake engineering and science.

Field observations and data are not typically collected, documented, or archived in a systematic manner. A central observations and data repository should be developed. It should allow discipline-specific data entry, because this is how data are typically collected, but it should integrate the collected data so that multi-disciplinary research teams can utilize these observations and data to investigate comprehensively the effects of earthquakes and developed enhanced tools for earthquake simulations.