Mitigation – New Infrastructure

• Performance-based Design
  – Engineers
  – Seismic hazard
  – Social Science
  – Public
  – Decision makers

• Performance (holistic)
  – Structure, foundation
  – Contents

• Disclosure/Ratings
  – Public (purchase)
  – Finance/Insurance
  – Community
  – Flood, Liquefaction/Fire

• Shelter-in-place
  – Home, work, or ?
  – Utilities (elect, gas, H2O…)

Mitigation – New Infrastructure

• New performance objectives
  – Cost effective repair of buildings, bridges, etc
  – Different design life
  – Costs

• Do we achieve our objectives or are they predictable
  – Data from instrumented buildings

  – Use of instruments and sensors for data collection to improve modeling, reduce uncertainty, health monitoring

• Blind Predictions
  – Recent experience
  – Post-earthquake assessments of infrastructure

• Social issues, education and trust (uncertainty)