California boasts the world’s sixth largest economy with a $2.4 trillion GDP and nearly 40 million residents. It is also famous for its earthquakes, with the risk of widespread economic and social devastation at any moment. The best way to guard against this threat is to make our cities safer by identifying and retrofitting our vulnerable structures. The U.S. Geological Survey estimates that a 7.8-magnitude earthquake in Southern California would result in more than 1,800 deaths, 50,000 injuries and $200 billion in damage. The odds are against us. The likelihood of a 6.7+ and 7.5+ temblor within the next 30 years are more than 99 and 46 percent respectively.

The displacement of tens of thousands of residents can have a devastating impact on a society. This situation is further complicated when the homes lost reflect a large proportion of a community’s affordable housing. The potential impacts on businesses large and small is particularly troublesome when considering that many of these enterprises occupy the very buildings that are at risk of failure during an earthquake.

Legal precedent now places liability on building owners, as in the case of an unreinforced masonry building in Paso Robles where the courts found the owners liable for the deaths of two occupants even though the building technically complied with the city’s retrofit ordinance. Other lawsuits stemming from the collapse of balconies and decks also show that building owners may be held responsible for a structure’s safety even if local jurisdictions have not passed specific ordinances requiring identification or mitigation of unsafe conditions.

The urgency to address these concerns has prompted a new movement called the Seismic Resilience Initiative, (SRI). This working group, led by the U.S. Resiliency Council, includes BizFed, California Building Officials, practicing California structural engineers and others, and is receiving technical assistance from the California Seismic Safety Commission, Office of Emergency Services, and Department of Insurance. Its mission is to promote statewide policy that will identify buildings that are known to present a heightened seismic risk of death, injury and damage based on their age, structural system, size and location.

Researchers at Caltech recently determined that for every dollar spent in retrofitting soft-story structures, property owners could expect to save up to seven dollars, not including loss to contents, alternate living expenses or deaths and injuries. West Coast cities recognize the economic value of preserving and retrofitting structures. Los Angeles, San Francisco, Berkeley and other cities throughout California have adopted earthquake retrofit ordinances, requiring seismic fortification of wood-frame soft-story buildings and non-ductile concrete structures.

Resilience isn’t just good for society, it’s good for business.

Important legislation inspired by SRI and introduced Feb. 15, 2018 by California Assemblyman Adrin Nazarian, a longtime advocate for earthquake preparedness, aims to help cities identify buildings that could be at significant risk during a major quake, and to establish funding sources to help cover the costs to cities impacted by the law. AB 2681 will provide a “snapshot” of California’s vulnerabilities and the potential impacts we face as a state; and it will spotlight communities where there is an urgency to address the matter. Text of the bill can be found here. The legislation includes:

1. Developing criteria to identify seismically vulnerable building types.
2. Directing building departments to develop an initial list of potentially vulnerable buildings.
3. Notifying building owners that they may have potentially vulnerable buildings.
4. Directing noticed owners to assess the vulnerability of the structure.
5. Building and maintaining a statewide data repository of potentially vulnerable buildings.
6. Identifying possible funding mechanisms to offset costs to building departments.

For more information or to support the Seismic Resilience Initiative, please visit www.usrc.org.
FAQ About AB 2681

1. **What is AB 2681?**
   Introduced by California Assemblyman Adrin Nazarian, AB 2681 calls for the identification of California’s most seismically vulnerable buildings. AB 2681 is not a mandate to retrofit any buildings. Rather, it will provide a statewide snapshot of the tangible risks facing our communities. There are five categories of buildings determined to be more at risk of damage:
   - **Soft-story:** Wood-framed buildings with an open ground level, built prior to 1978.
   - **Unreinforced Masonry:** Brick not braced with rebar or another reinforcing material.
   - **Tilt-up:** Pre-1970s concrete walls with weak roof connections that can collapse.
   - **Non-ductile Concrete:** Pre-1978 rigid concrete structures that can collapse in a quake.
   - **Steel Moment Frame:** Pre-1994 multistory towers can sustain fracturing at welded points.

2. **What is the urgency?**
   California has more than a 99% chance of a M 6.7+ earthquake within the next 30 years, according to the USGS. USC researchers say “The Big One” could be the costliest natural disaster in U.S. history, causing more than $113 billion in property damage, $68 billion in business disruption and $11 billion in other costs.

3. **Won’t identification of building as potentially vulnerable increase an owner’s liability?**
   Owners are already responsible for injuries on their properties. Most real estate transactions require a structural assessment, which identifies seismic vulnerabilities. Owners who have not had their structures assessed are not immune from liability. AB 2681 gives stakeholders information about a building’s potential risks, allowing them to take more responsibility themselves.

4. **Won’t identification of a building as potentially vulnerable decrease its value?**
   Restaurants post letter grades indicating health code compliance; new vehicles sold must post their crash performance ratings. The public’s right to make informed decisions outweighs the owner’s profit margin in these cases. Why wouldn’t the same be true of the buildings in which we live and work?

5. **How can we really know if a building is vulnerable in an earthquake? Not all buildings are going to collapse.**
   Engineers and scientists, with evidence of thousands of buildings damaged in past earthquakes, have proven that certain classes of buildings are highly vulnerable to earthquakes. Just because not all smokers get lung cancer doesn’t mean the science is not clear that smoking is dangerous to your health.

6. **Does AB 2681 require identified buildings to be retrofitted?**
   AB2681 is limited to the evaluation and identification of potentially vulnerable buildings. It leaves mitigation requirements to each jurisdiction, which can at their discretion develop resilience strategies that balance all the needs of the community.

7. **Is AB 2681 an unfunded state mandate?**
   No. AB 2681 provides that, if the Commission of State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to statutory provisions.

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8. Aren’t the cities that approve building permits responsible if they are damaged in an earthquake?
Building departments have always been immune from liability for building performance, even if they granted permits. Older codes may not have produced buildings that will be safe in earthquakes, in the same way that older cars – which are still allowed on the road – lack many important safety features found in new vehicles.

9. This bill is too big a leap. Can’t we start with something smaller?
AB 2681 simply expands on existing statewide regulations. SB 547, passed in 1987, requires identification of unreinforced masonry buildings; AB 2681 extends this to other vulnerable building types. Of the approximately 28 million Californians affected by AB 2681, more than one-quarter already live in cities with identification and/or retrofit ordinances.

10. Why are there exemptions to the bill for local, state and federal buildings and for hospitals and schools?
Local jurisdiction owned buildings are not exempt from AB 2681. State buildings are exempted because they are already required by state law to identify and evaluate their owned properties in a manner similar to the requirements of the bill. Schools and hospitals also are already under state mandated requirements to identify and evaluate potentially vulnerable buildings. Federal properties do not fall under the jurisdiction of the state.