

➤ **The Northridge earthquake registered magnitude 6.7.**

It struck at 4:31 a.m. on January 17, 1994. Its epicenter was located in the San Fernando Valley, 1.5 kilometers from the campus of California State University, Northridge, and about 32 kilometers west-northwest of downtown Los Angeles. The earthquake occurred 19 kilometers below the earth's surface on a buried thrust fault with a duration of 15 seconds.

➤ **The Northridge quake was the most destructive since the San Francisco quake of 1906.**

Direct estimated losses totaled about \$25.7 billion; half of this was to wood-frame homes. With secondary economic impacts included, the total estimated loss was \$40 billion. Fifty-seven fatalities were attributed to this earthquake, but about 11,000 individuals were treated and released from emergency rooms, and another 1,000 had injuries that required hospital admission. Ninety-five percent of the damage was located in Los Angeles, with 80 percent of this in the San Fernando Valley. The earthquake caused the collapse of seven freeway bridges and damaged 250 others. Six thousand commercial and industrial structures and 4,000 municipal buildings, schools, universities, and medical facilities also were damaged.

➤ **Damage to residential buildings was extensive.**

Low-rise, wood-frame construction sustained the greatest damage in the earthquake. Fifteen "ghost towns," neighborhoods where 90 percent of the housing units were damaged and vacant, were created by the quake. There were 7,000 single-family homes, 5,000 mobile homes, and approximately 49,000 apartments destroyed or severely damaged. In total, almost 450,000 units (84% of which were multifamily units) were inspected and found to be damaged. A full tally of insurance claims revealed that about 300,000 single-family homes suffered extensive minor damage.

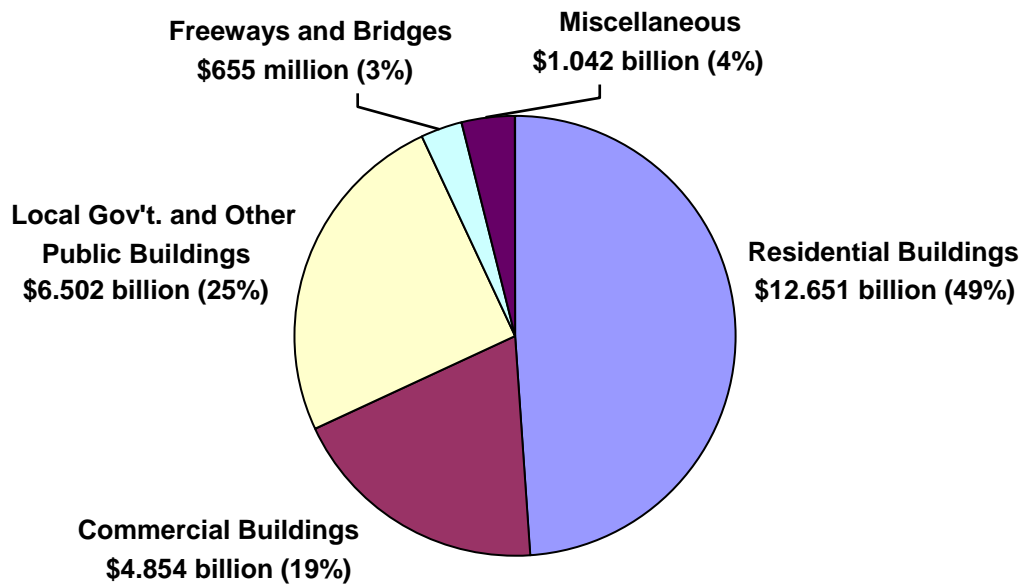
➤ **Larger, older structures suffered most severely.**

The most dramatic building failures were seen in older, concrete-frame buildings, including the Kaiser Medical Building, the Northridge Fashion Mall, and the parking garage at Cal State Northridge. Less visible but equally important was the failure of welded connections in 100 steel-frame buildings. The most common failure was the collapse of "soft first-stories" in apartment and condominium buildings built on top of open ground-floor parking.

➤ **The earthquake was the same size and in approximately the same location as the 1971 San Fernando (Sylmar) earthquake.**

The Northridge quake caused much more physical damage because of the density of urban development in the intervening twenty-three years. However, deaths and injuries were limited because the quake occurred early in the morning on a holiday, Martin Luther King Jr.'s birthday.

Northridge Earthquake Capital Losses (\$25.7 billion total)



Number of Residences Destroyed or Damaged, Northridge Earthquake (Building Inspections Only)

	Red Tagged (Severe Damage)	Yellow Tagged (Severe Damage)	Green Tagged (Minor Damage)	Total
Single-Family	1,000	6,000	57,000	64,000
Multifamily	15,000	34,000	327,000	376,000
Mobile Homes	5,000	0	4,000	9,000
TOTAL	21,000	40,000	388,000	449,000

Source: *Disaster Hits Home: New Policy for Urban Housing Recovery* (University of California Press, 1998), by Mary C. Comerio, Professor of Architecture and Chair, Department of Architecture, University of California, Berkeley.