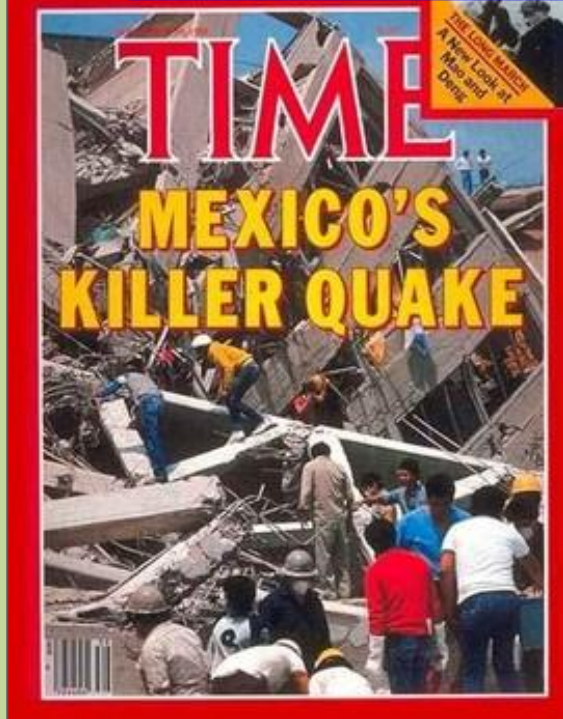


Photo Credit: <http://meatcityjumbo.com/mexico-s-killer-quake>



How Cities Plan for,
Respond to, and Recover
from Earthquakes in
Mexico City and Los
Angeles

Chelsea Richer

May 12, 2014

Dept. of Urban Planning

Planning for the Exceptional

Los Angeles Times

CIRCULATION:
LUSK DAILY / 1,521,197 SUNDAY

TUESDAY, JANUARY 18, 1994
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DAILY 35¢
DESIGNATED AREAS HIGHER

33 Die, Many Hurt in 6.6 Quake L.A. Area Freeways Buckle, Buildings Topple

Sylmar Jolted by Ghosts of Horror Past

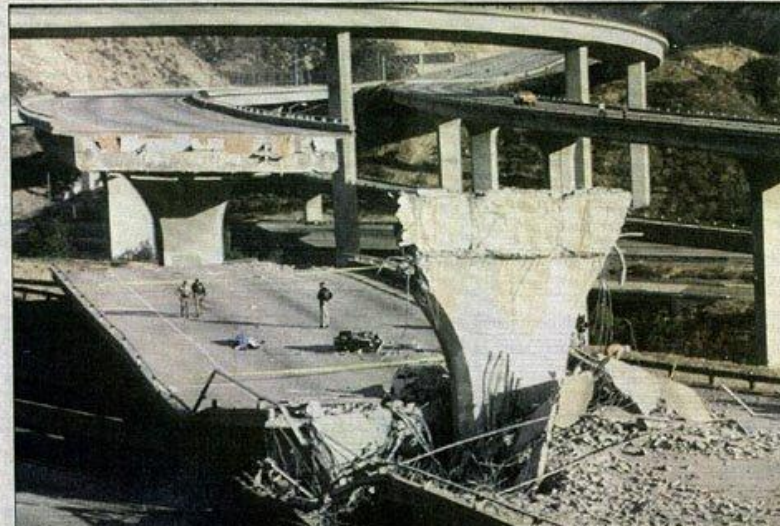
■ **History:** The city that crumpled under a 6.5 quake in 1971 remembers well the terror that came when the earth gave way. On Monday, it seemed like it was cursed.

By CRAIG TURNER
and RICHARD E. MEYER
TIMES STAFF WRITERS

Beate Housa had nearly conquered her fear when she felt it again.

That's why it was so terrifying. It was happening again. She and her husband, David, were in bed, like the last time. In a mobile home, just like the last time. It was, in fact, the same mobile home, at the same trailer park.

"This one felt much worse," she said afterward, calm but able to remember every tremor, then the shaking, then the violence. "It was



■ **Disaster:** Epicenter is in Northridge, where three-story apartment complex pancakes. Ruptured gas lines erupt in fire in strongest tremor in city's modern history.

By TRACEY KAPLAN
and GREG KRICKORIAN
TIMES STAFF WRITERS

A deadly magnitude 6.6 earthquake—the strongest in modern Los Angeles history—ripped through the pre-dawn darkness Monday, awakening Southern California with a violent convulsion that fastened freeways, sandwiched buildings, ruptured pipelines and left emergency crews searching desperately for bodies trapped under the rubble.

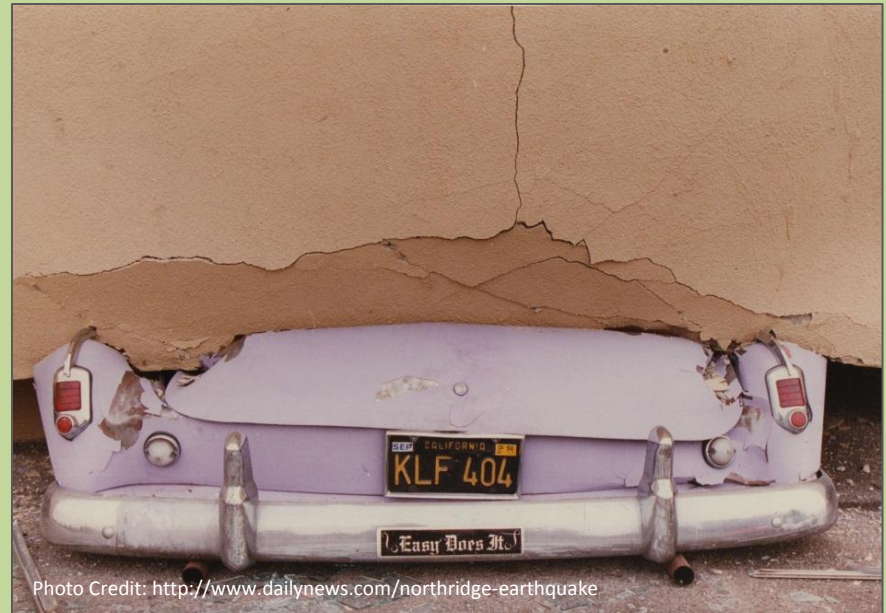
The 10-second temblor, which was not the long-dreaded Big One but erupted so ferociously that it initially seemed every bit as intense, was blamed for at least 33 deaths—nearly half of which occurred when a three-floor apartment complex near the epicenter in Northridge collapsed into two stories.

Triggered by a fault that awoke the northern San Fernando Valley between two mountain ranges like a vise, the 4:31 a.m. earthquake swamped hospitals with hundreds of injured victims and left thousands more homeless.

Photo Credit: <http://myemail.constantcontact.com/CD2-News-Vol--5--Issue-1.html?soid=1105979720716&aid=Jr-caux1GA>

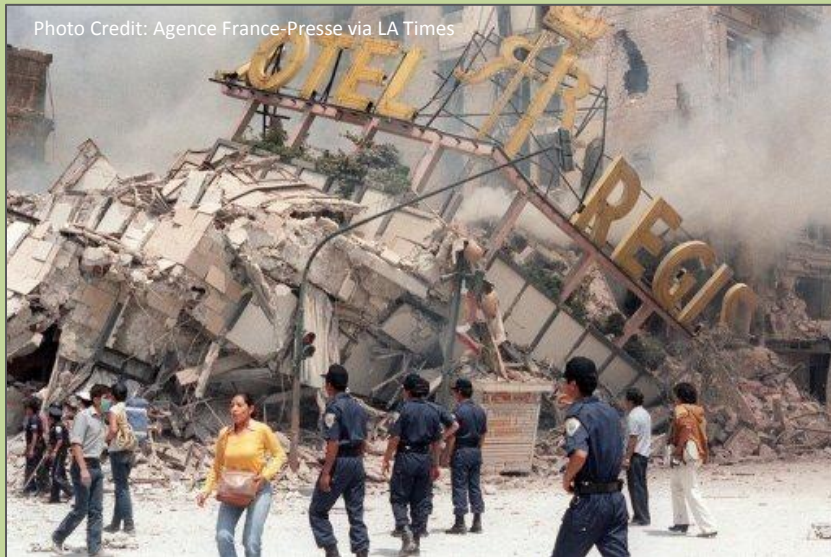
Outline

- Earthquakes and urbanized spaces: why should we care?
- Background
 - Mexico City, 1985
 - Los Angeles, 1994
- Agency Response
 - Housing
 - Transportation
- Fast-Forward
 - Mexico City, 2014
 - Los Angeles, 2014
- Where do we go next? Recommendations



Earthquakes and Urbanized Spaces

- 75 million Americans in 39 states
- 370 million people world-wide
- Cities concentrate people and economic resources, which result in bigger disasters



Mexico City, 1985

- September 19, 7:15am
- 8.1 magnitude
- 2 minutes
- 9,500 fatalities
- ~\$5 billion in reconstruction

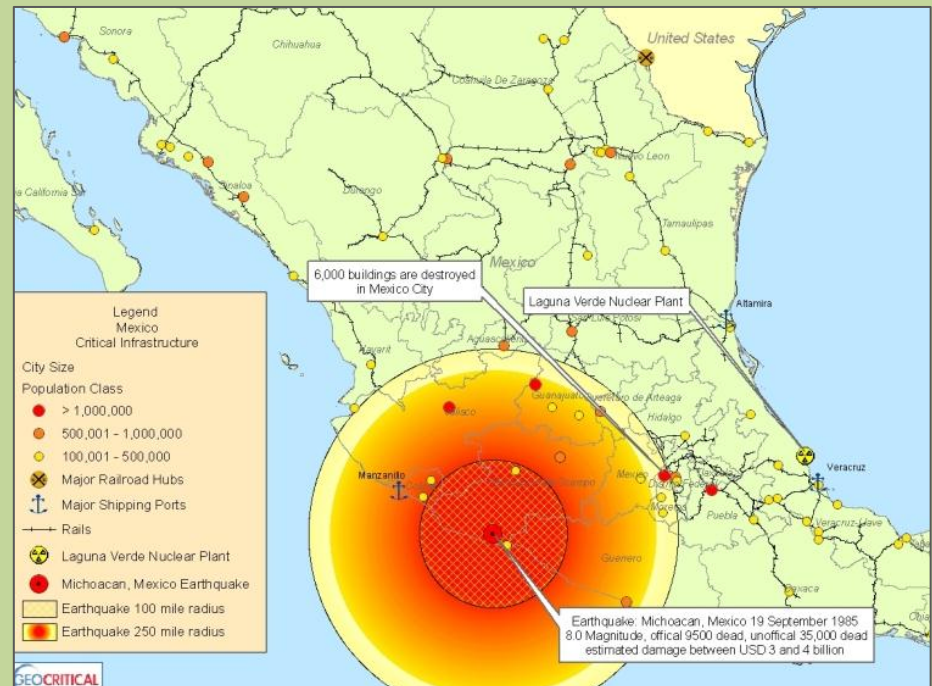
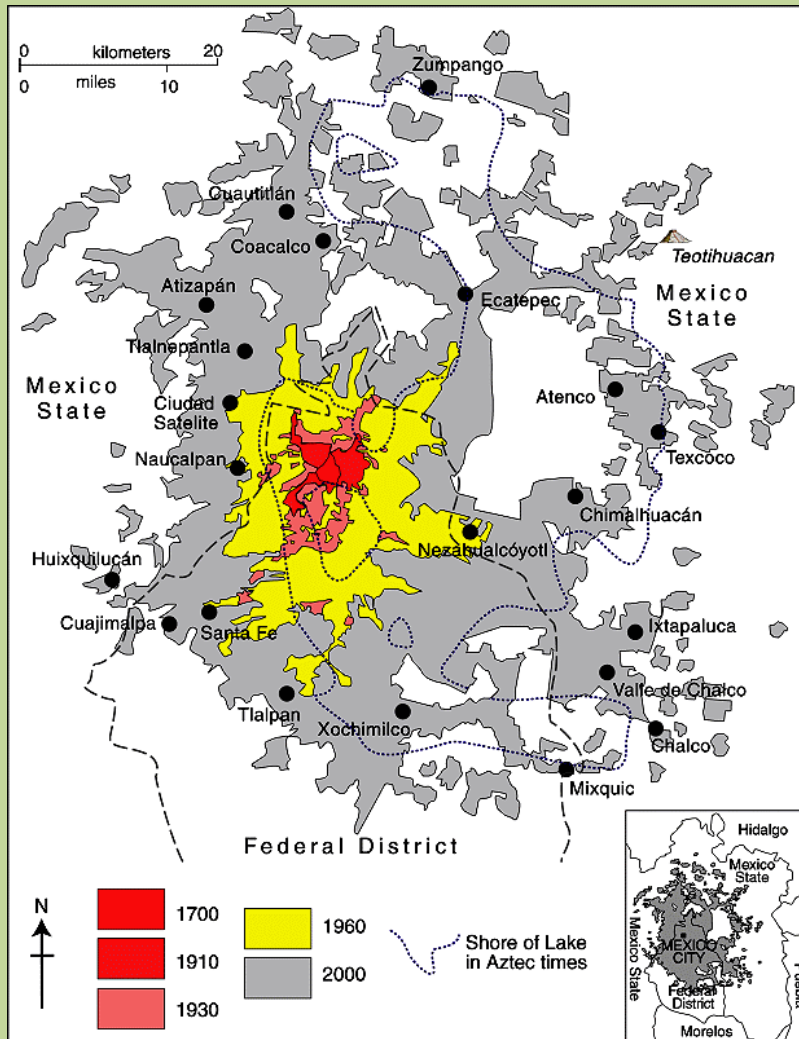


Photo Credit: Rhoda and Burton, Geo-Mexico; The Yucatan Times.

Los Angeles, 1994

- January 17 at 4:30am
- 6.7 magnitude
- 60 fatalities
- \$13-\$20 Billion in damages

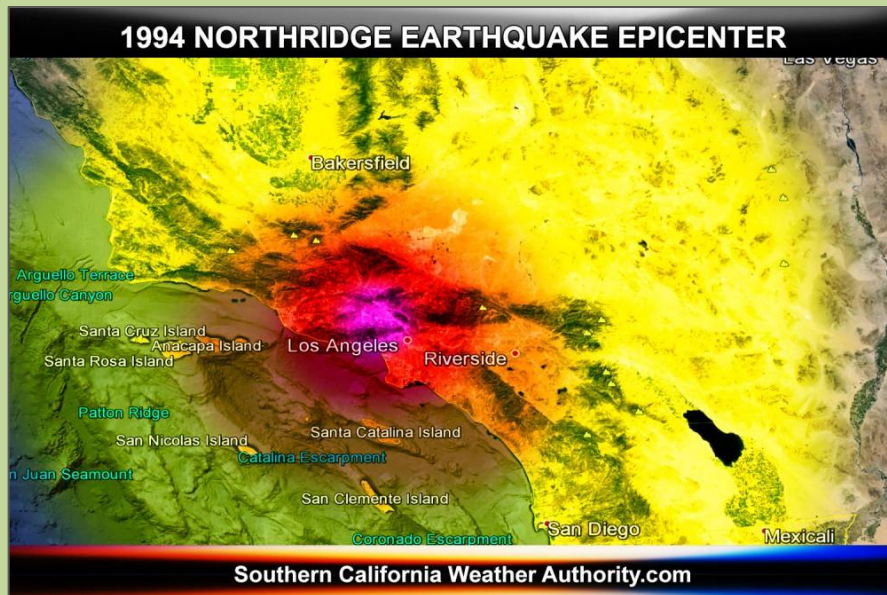


Photo Credit: Southern California Weather Authority; Damien Newton, Streetsblog



Interagency Response: Housing

Five “Critical Outputs”	<i>Mexico City: RHP program</i>	<i>Los Angeles: Ghost Town program</i>
Rapid action	4000 units built in two years	7000 units built in two years
Massive funding	\$392 million committed	\$200 million committed
Community outreach	negotiated agreement	community partnerships
Improved conditions	tenure shift to ownership	neighborhood stability
Institutional coordination	vertical integration in housing sector	horizontal integration with multiple sectors



Interagency Response: Transportation

- Vertical vs. Horizontal Integration
- Resource-sharing, standard operating procedures, cooperation
- Declaration of emergency

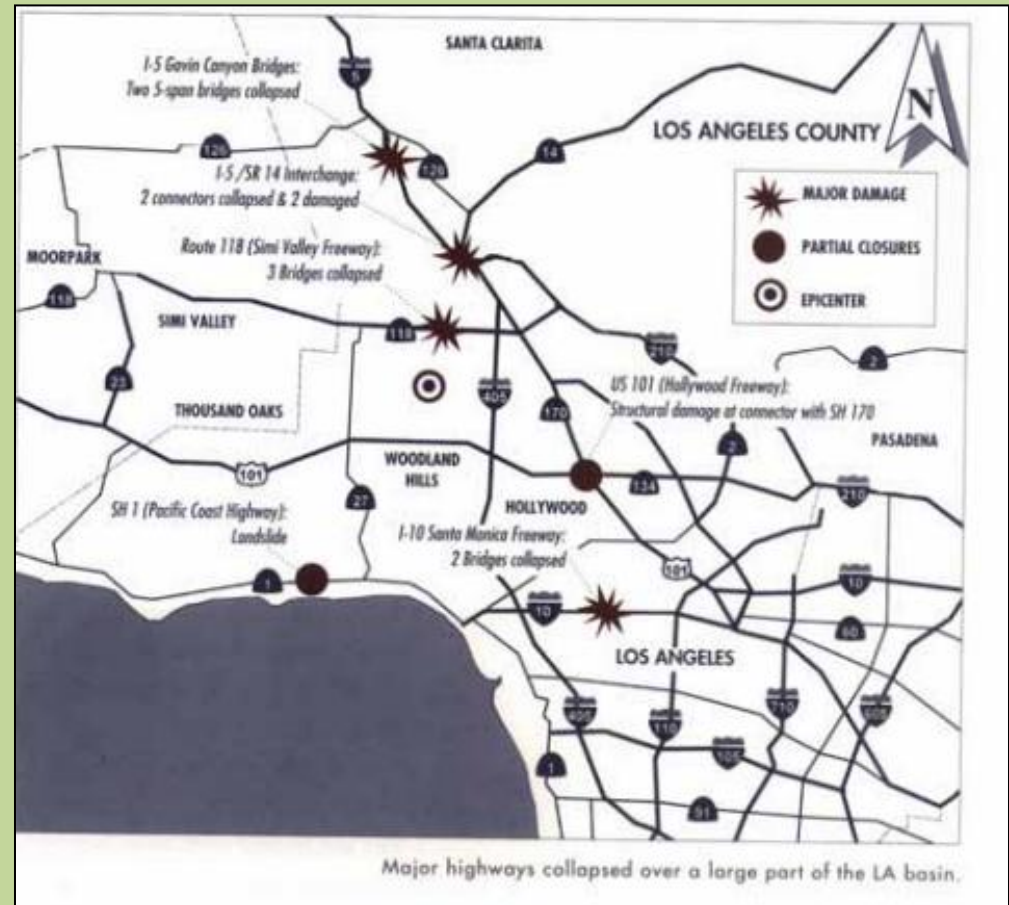


Photo Credit: Wachs and Kamel

Mexico City, 2014



Photo Credit: AFP via News.com.au

Los Angeles, 2014



Where do we go next?

- Technological advancement and investment
- Social implications of policies
- Continued and reinforced vertical and horizontal integration
- Interaction between earthquakes and climate change

Earthquakes and Climate Change

- Compounded vulnerabilities
- Exaggerated risks
- Interacting policies

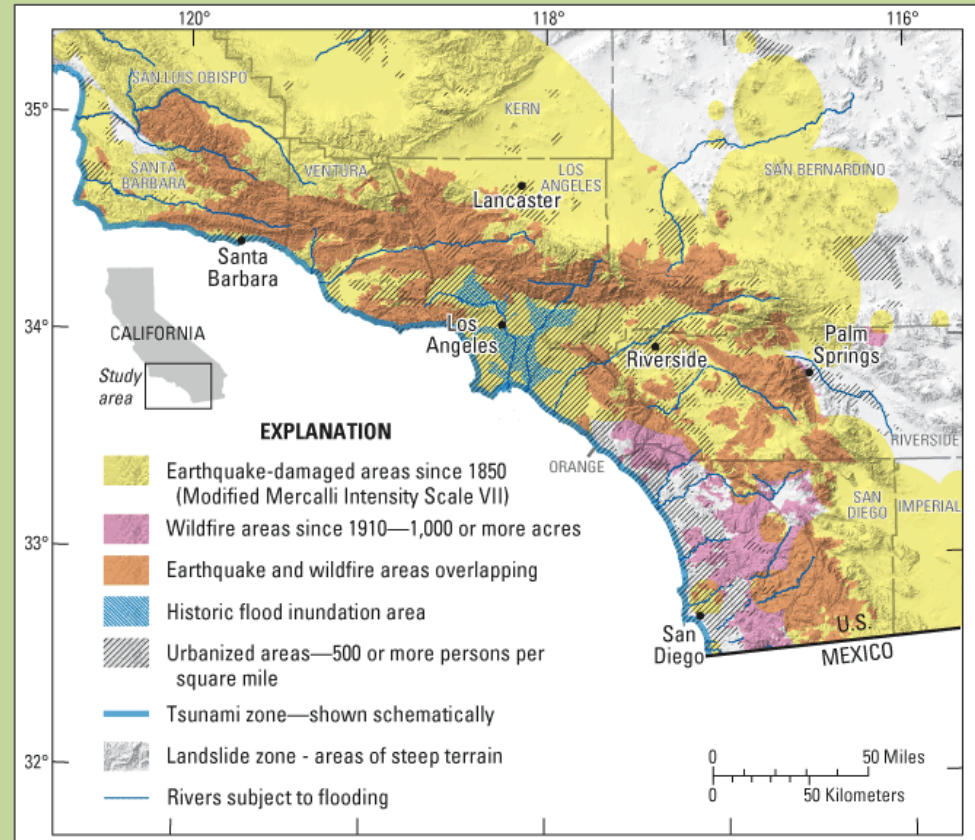


Photo Credit: USGS

Summary

- Earthquakes and urbanized space
- Mexico City 1985 and Los Angeles 1994
- Agency response
- Policy and planning in 2014
- Recommendations for future work

Thank you!