

**Native Americans in an urban place:  
a geospatial perspective  
on the 1994 Northridge, California earthquake**

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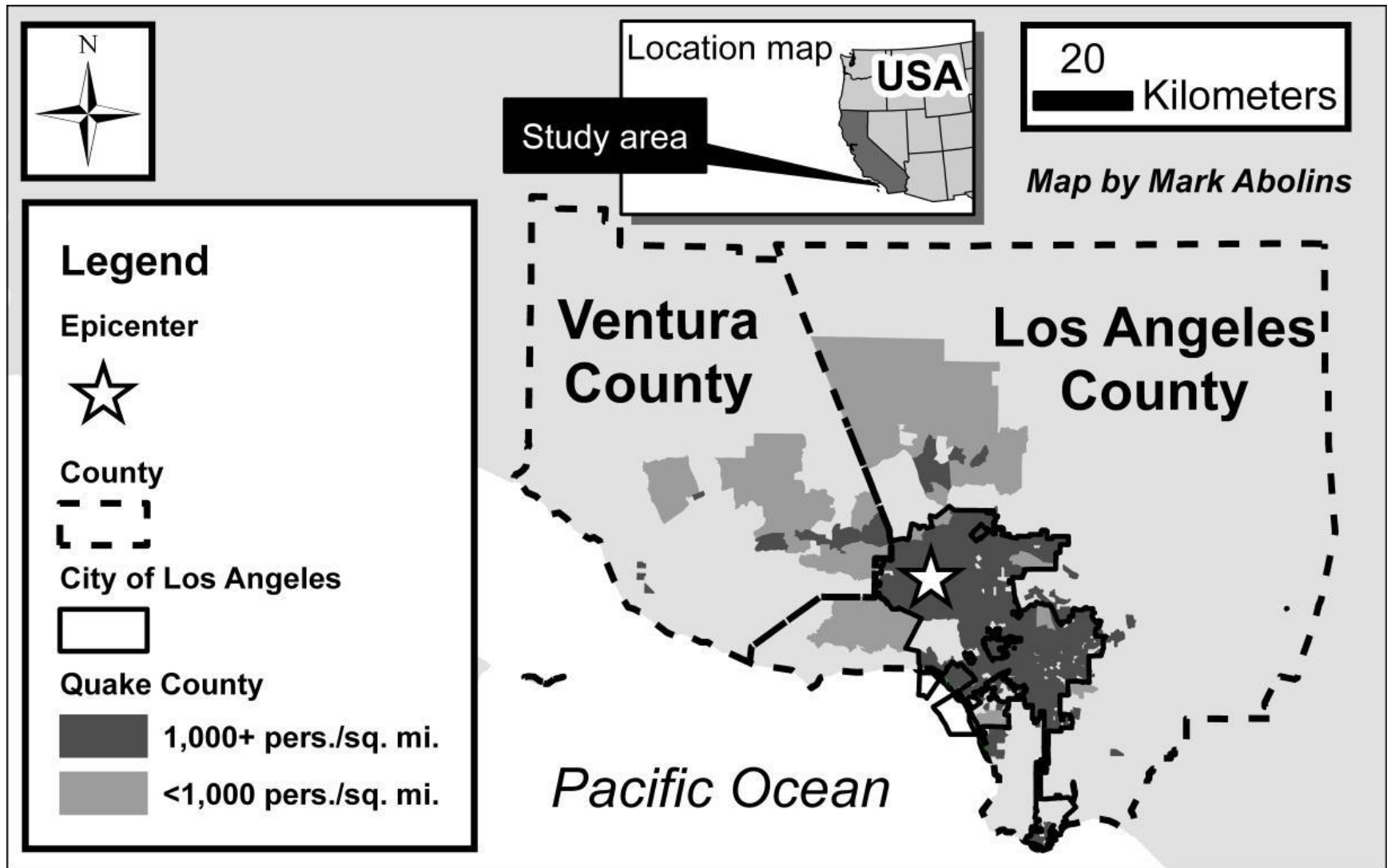
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# 1994 Northridge, CA Earthquake

- Approximately 18,000 Native Americans lived in census tracts in which at least one building was yellow- or red- tagged because of damage.
- Of these census tracts, 94% had population densities exceeding 1,000 persons per square mile.

# 1994 Northridge, CA Earthquake

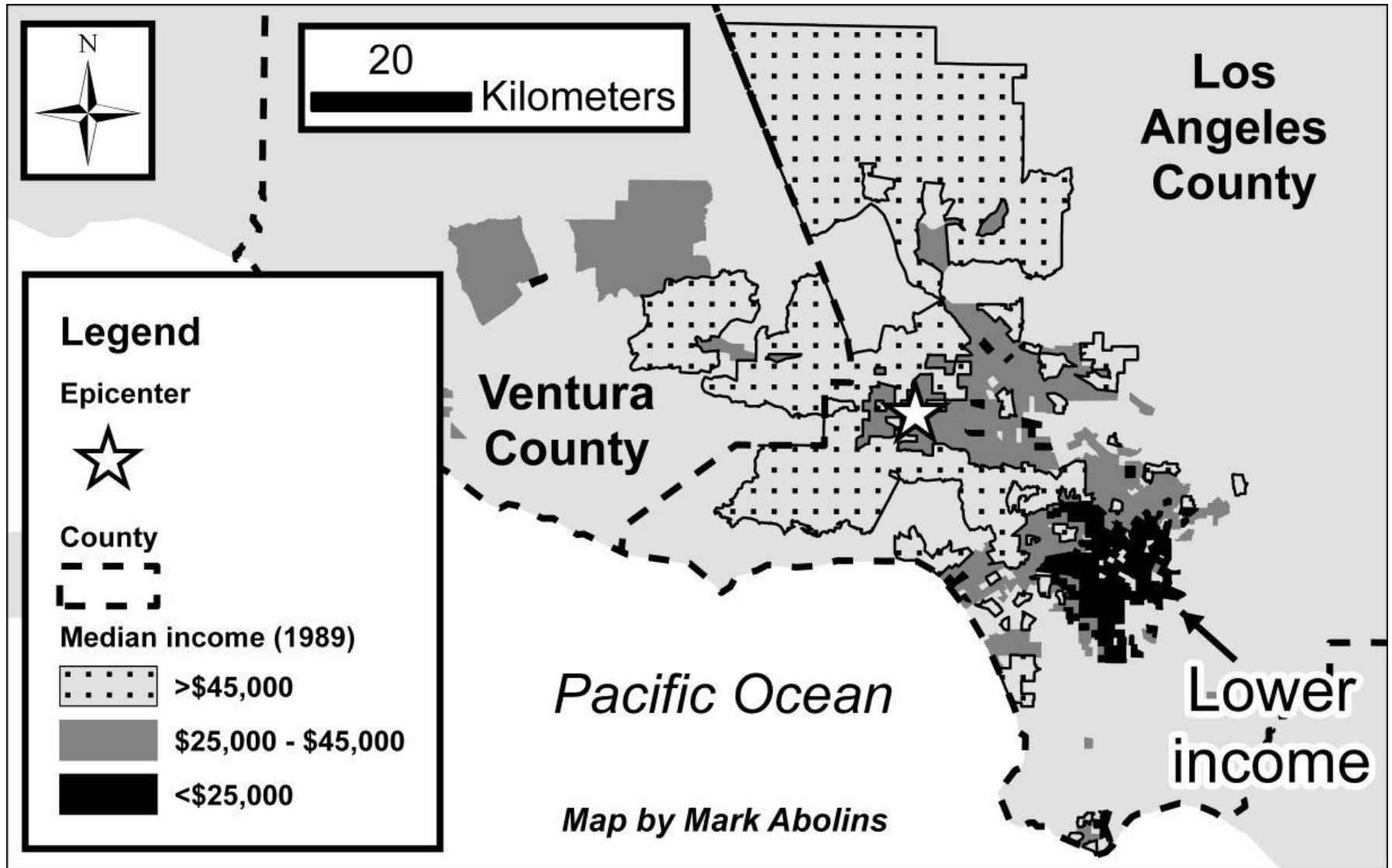


1990 Census tracts containing at least one building yellow- or red- tagged as a result of damage from the 1994 Northridge, California earthquake.

# 1994 Northridge, CA Earthquake

- More than 40% of the Native Americans were concentrated in census tracts having median household incomes of less than \$25,000/year .
- These census tracts were located in a largely-contiguous area (“lower income area”) within the City of Los Angeles a little more than 20 km southeast of the epicenter.

# 1994 Northridge, CA Earthquake

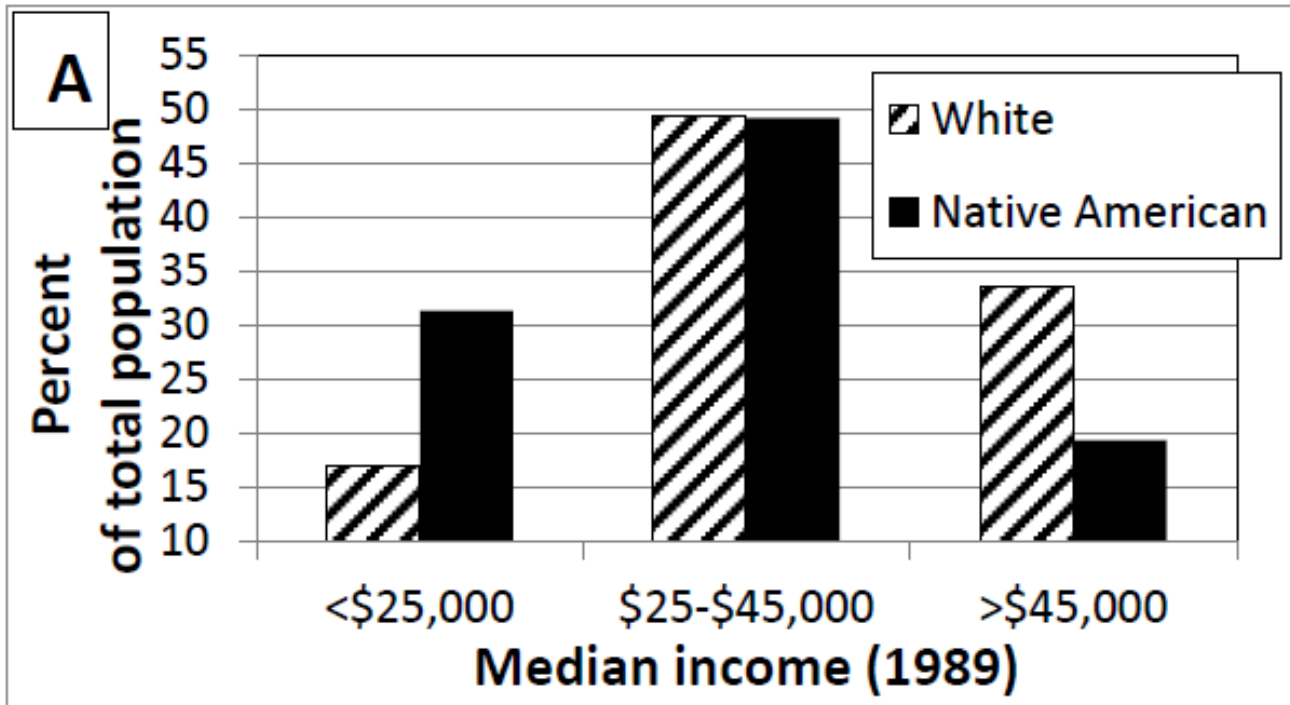


1990 Census tracts having a 1989 median household income of less than \$25,000 per year and containing at least one building yellow- or red- tagged as a result of damage from the 1994 Northridge, California earthquake.

# 1994 Northridge, CA Earthquake

- Relative to white residents, these Native Americans were likely at greater risk of harm because a disproportionate number were almost certainly lower income, had more children, lived in female-headed households with at least one child, rented, and lived in or near older buildings.

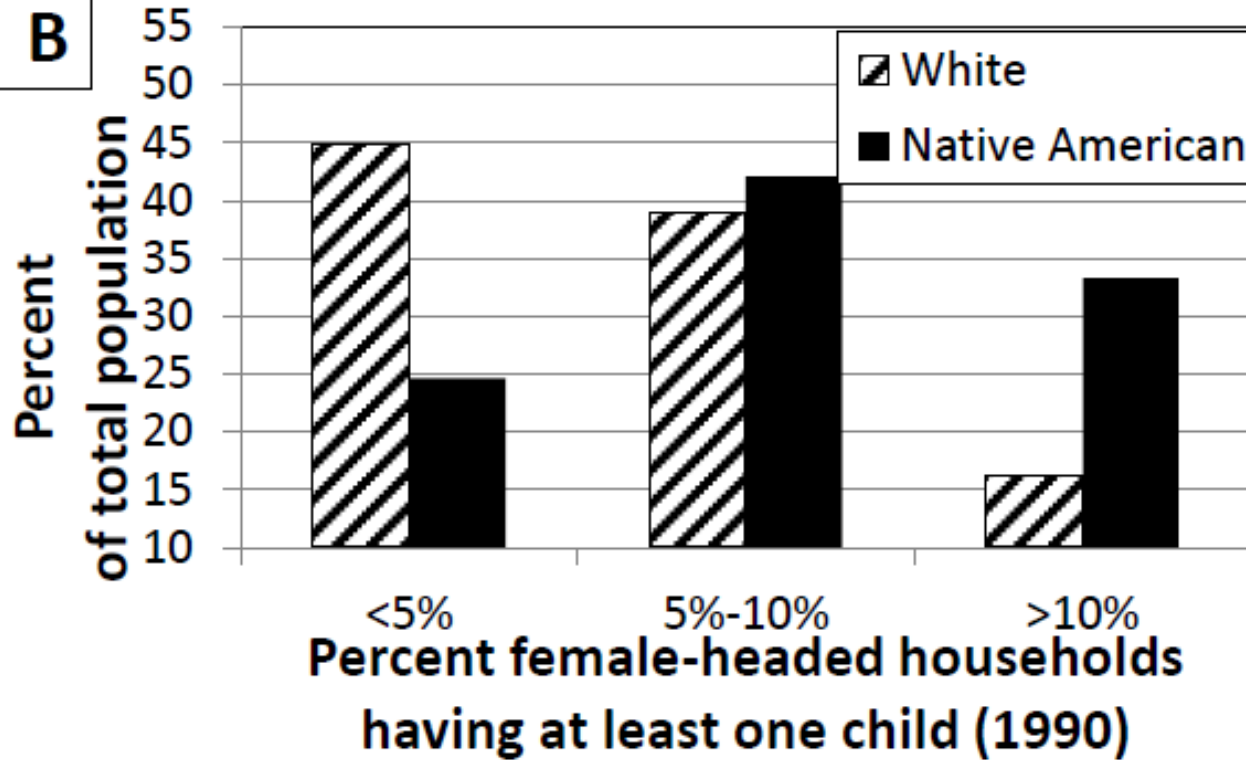
# 1994 Northridge, CA Earthquake



(A) Percentage of white and Native American populations in census tracts having lower, middle, and higher median 1989 household incomes. See Figure 4 for a map of lower, middle, and higher income census tracts.

# 1994 Northridge, CA Earthquake

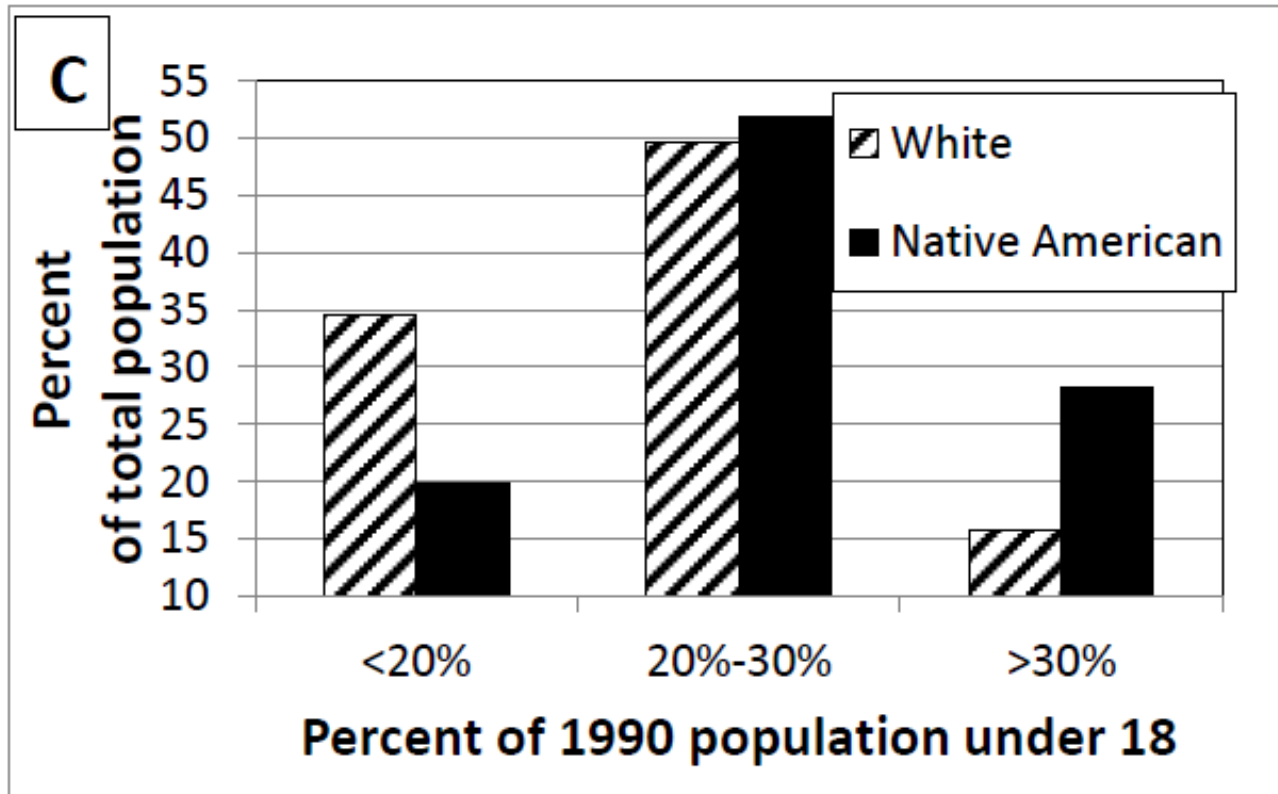
**B**



**(B)** Percentage of white and Native American populations in census tracts having lower, middle, and higher percentages of households headed by a female and including at least one child.

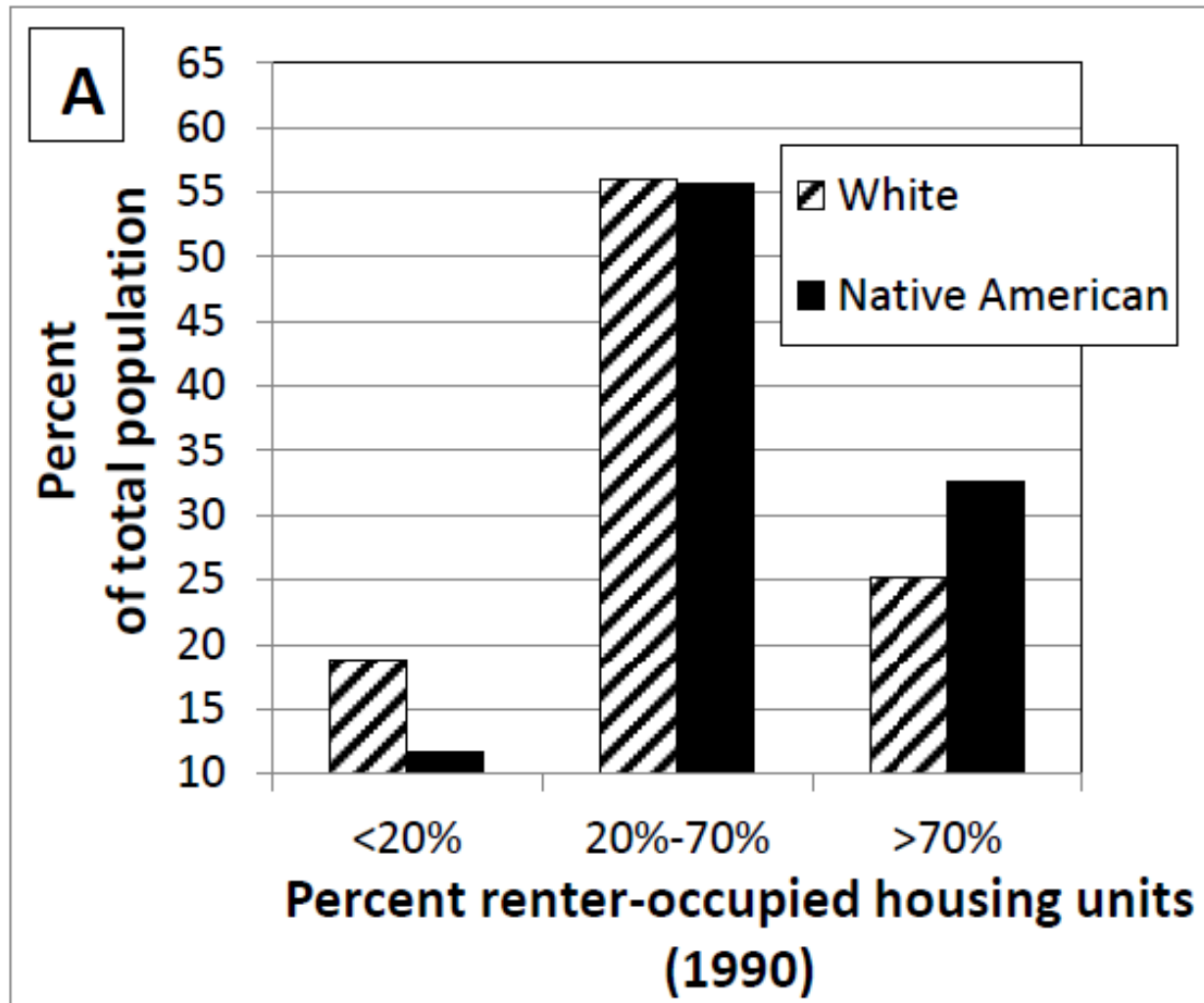


# 1994 Northridge, CA Earthquake



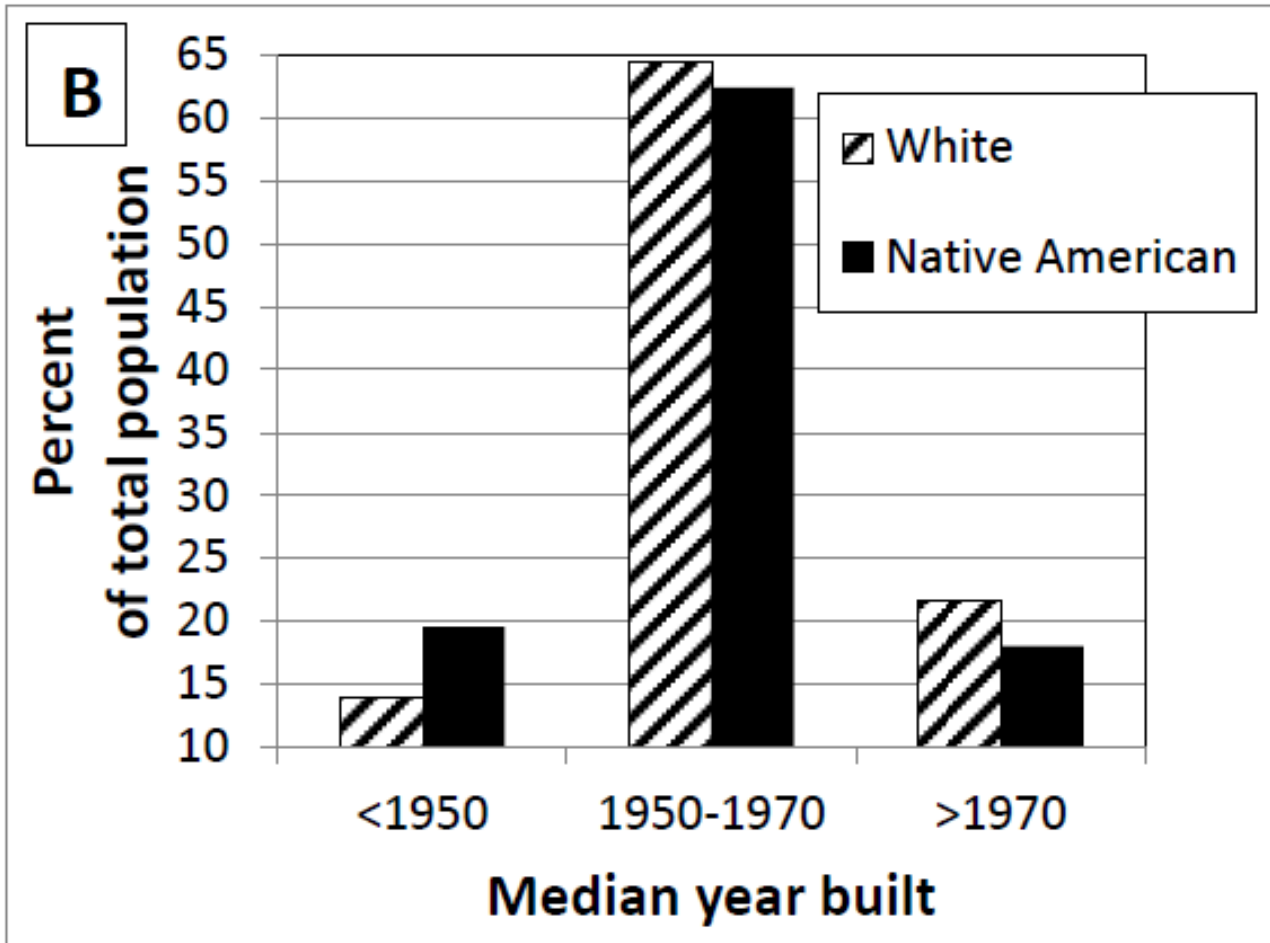
(C) Percentage of white and Native American populations in census tracts having lower, middle, and higher percentages of children.

# 1994 Northridge, CA Earthquake



(A) Percentage of white and Native American populations in census tracts having lower, middle, and higher percentages of renter-occupied housing units.

# 1994 Northridge, CA Earthquake



**(B)** Percentage of white and Native American populations in census tracts having different ages of housing units. Age of housing units is median year units in census tract were built.

# 1994 Northridge, CA Earthquake

- The geology of the lower income area amplified shaking, leading to Modified Mercalli Intensities of VI-IX with VII most widespread.
- Undergraduates can reproduce this investigation or complete similar investigations exploring the impact of disasters on Native Americans and other groups.

# 1994 Northridge, CA Earthquake

## **ACKNOWLEDGEMENTS**

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