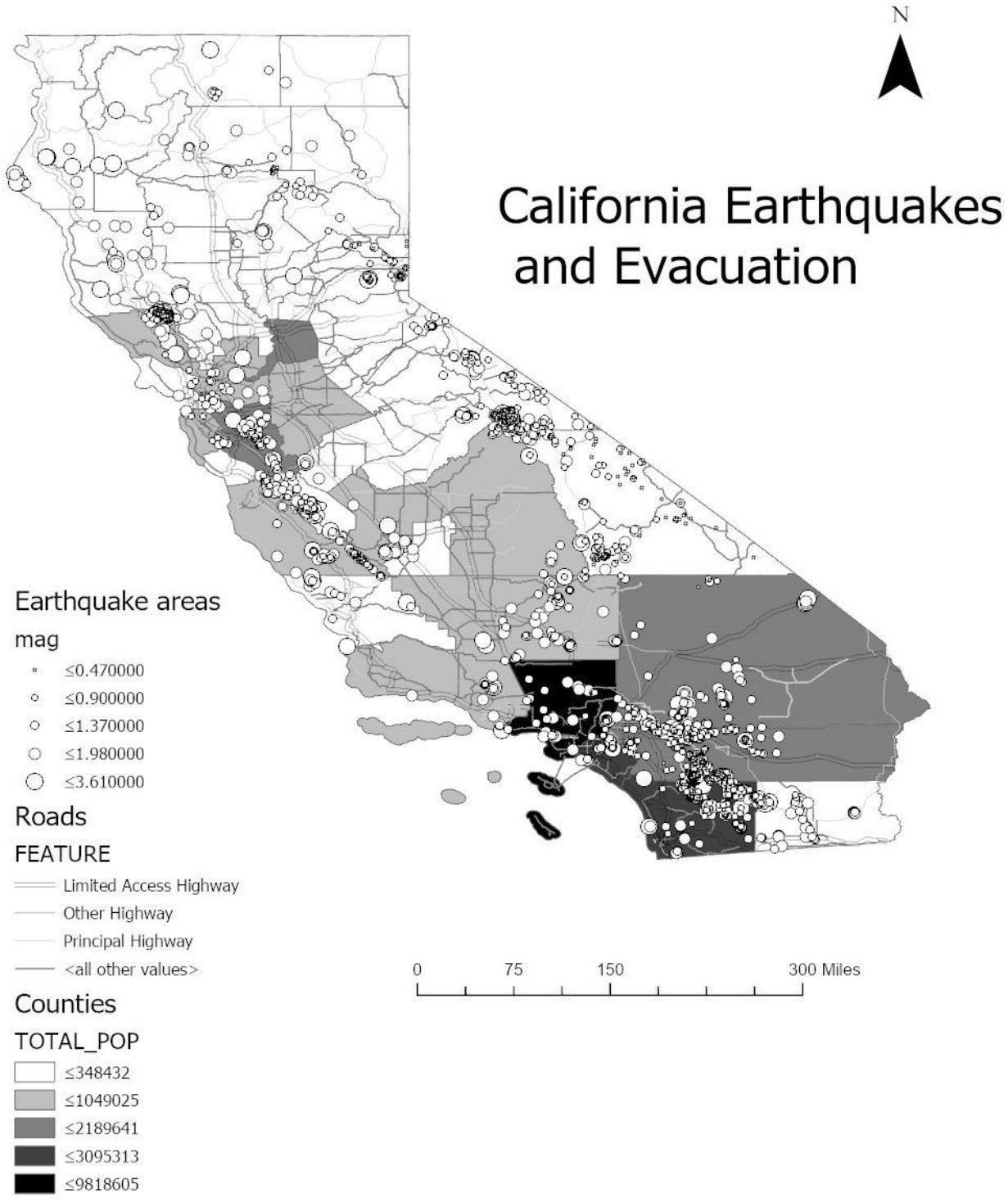
Lab 03 Basic Cartography- Sachin Mohan Sujir



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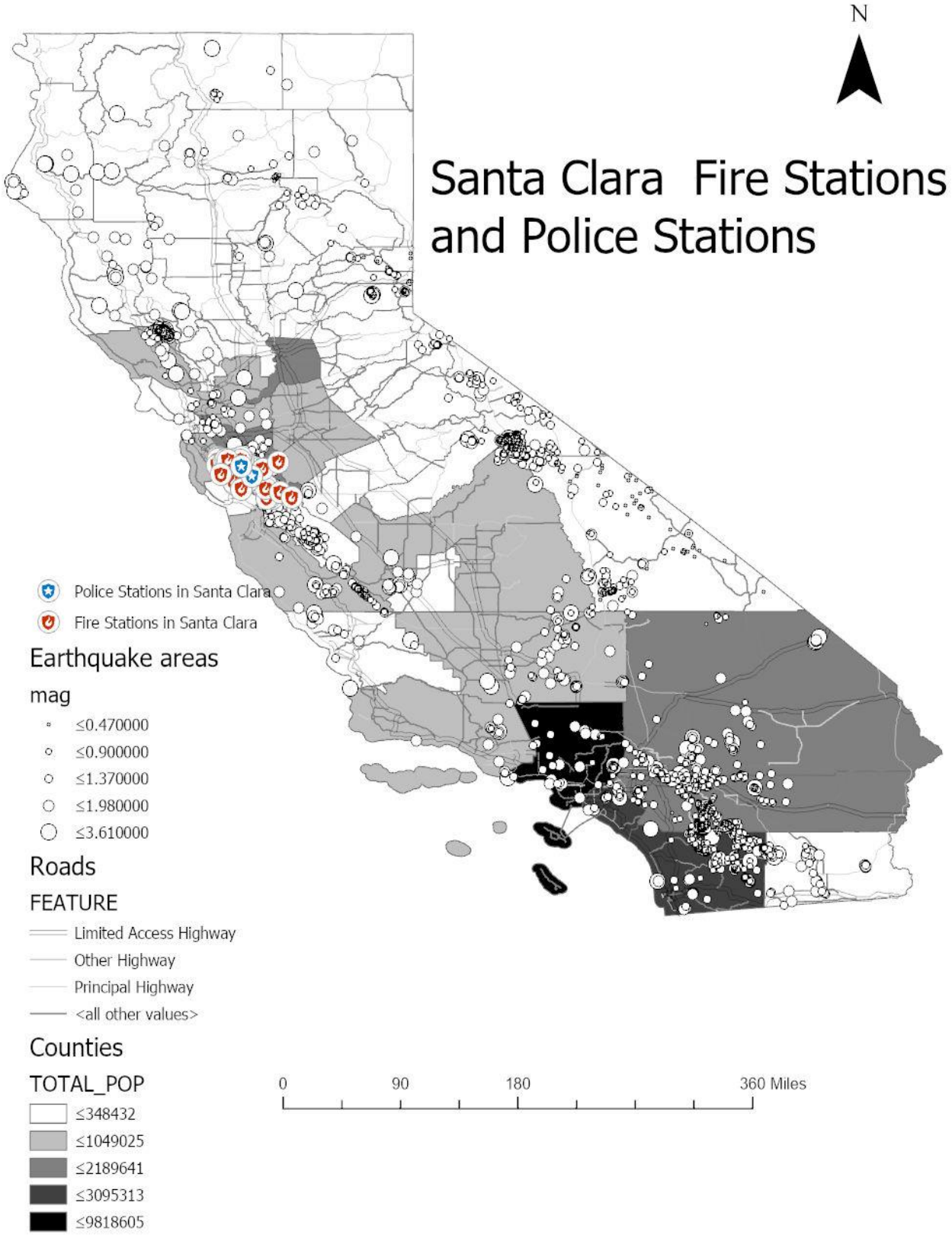
For this lab I have implemented option 1 and option 2.



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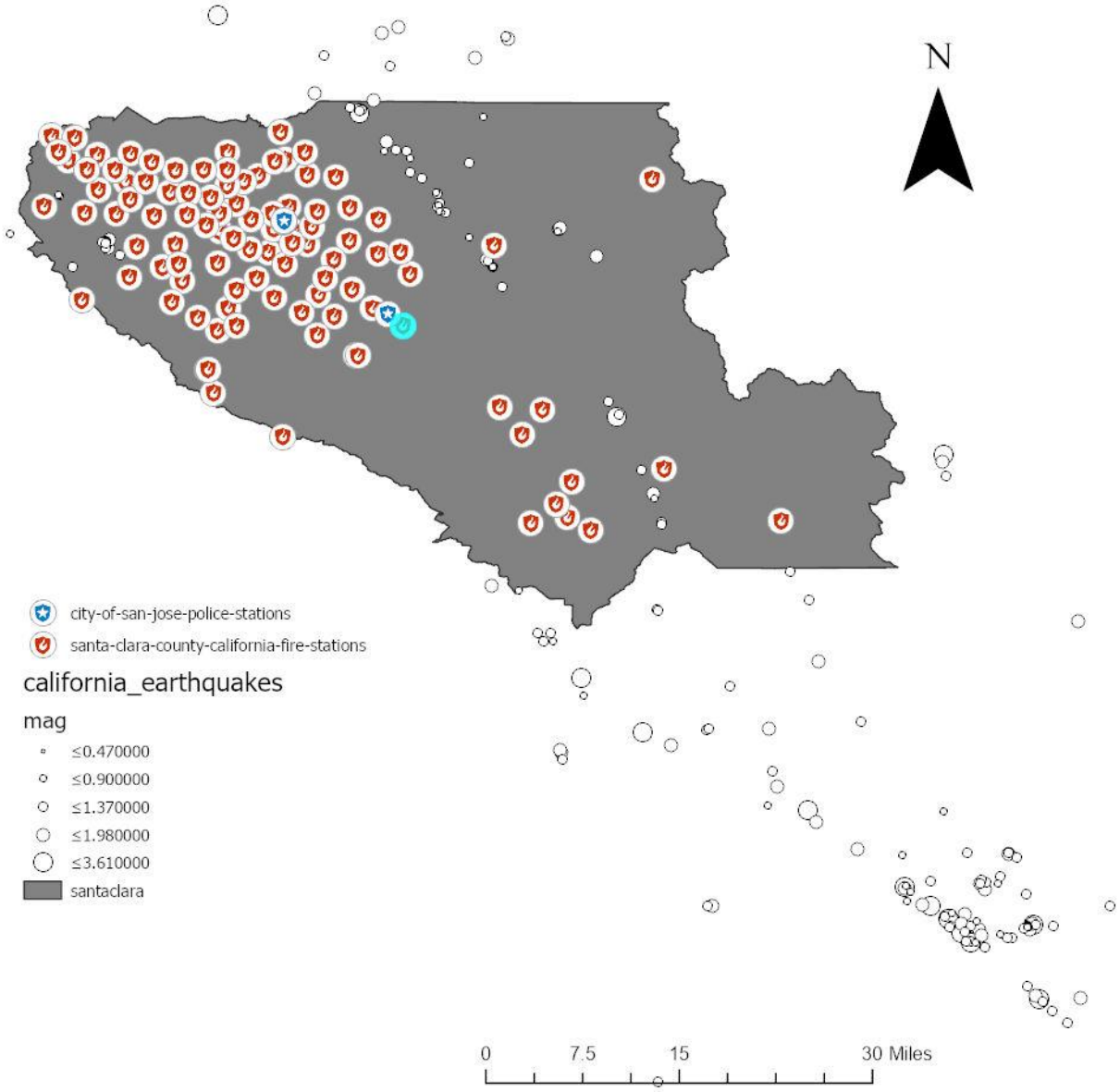

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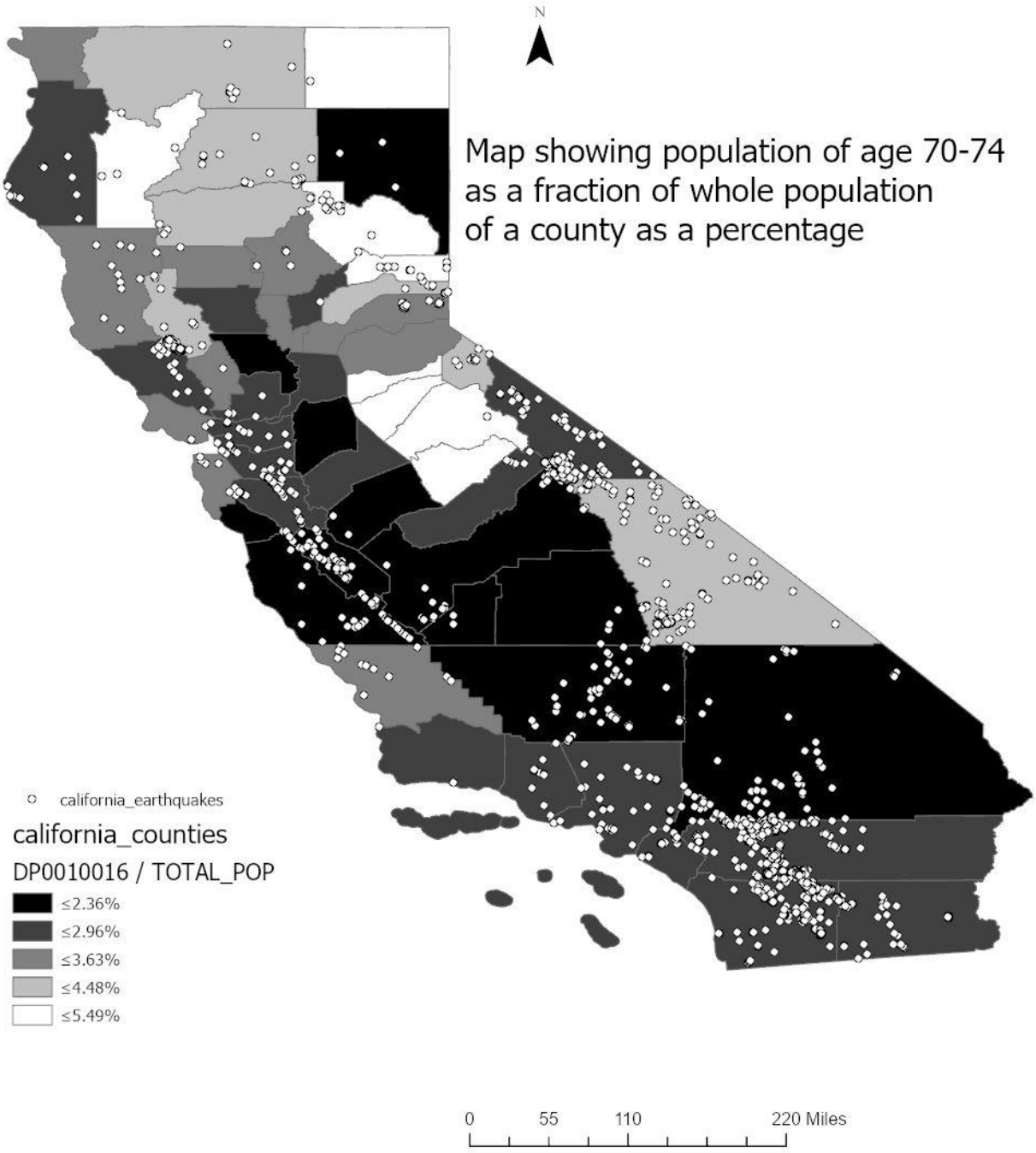

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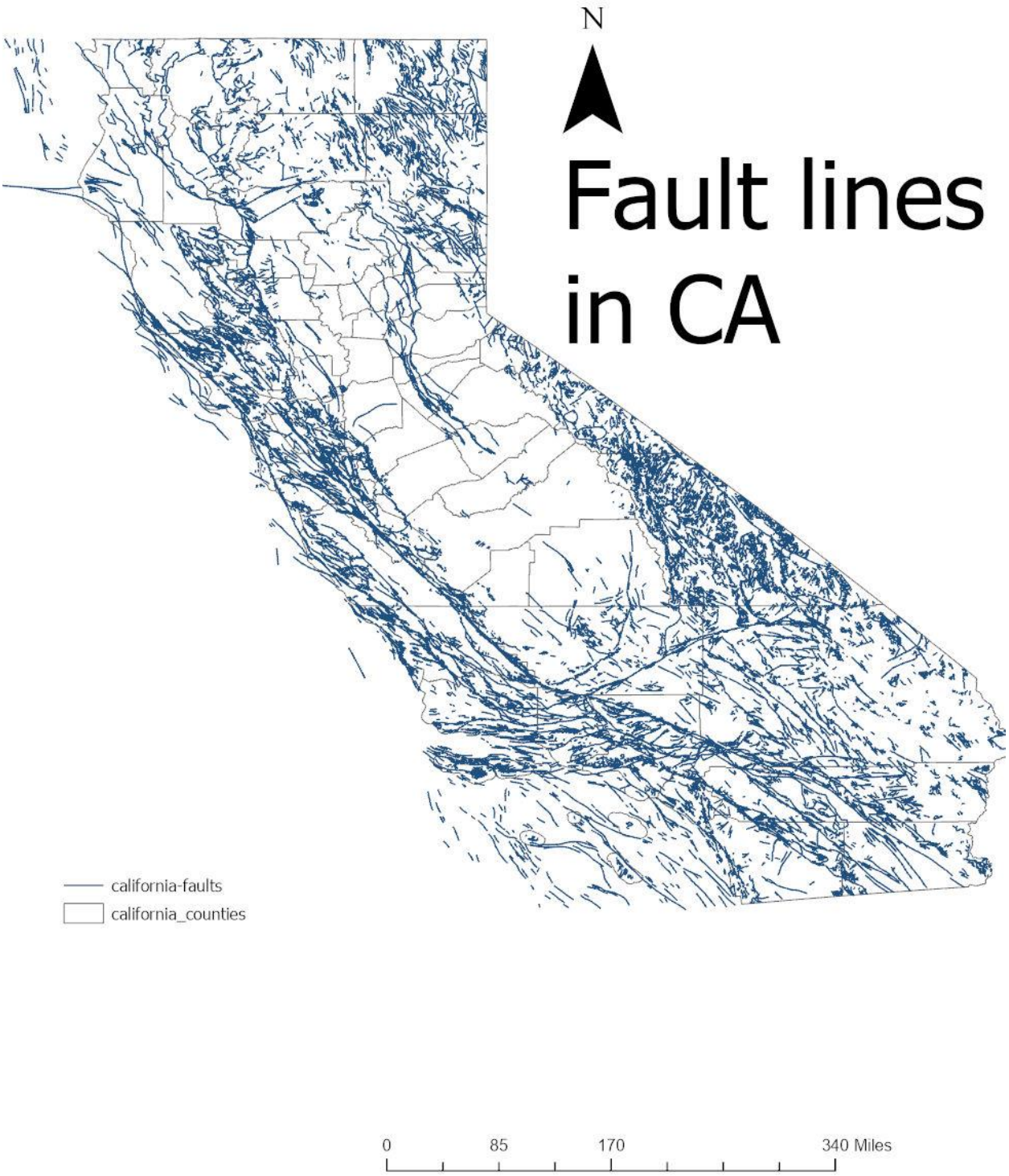

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In option 1 I have showed the emergency services like fire stations and police stations in Santa Clara county, one of the most popular counties in CA. I got the data set from a public domain Koordinates. I have also shown a map that has fault lines in CA - those which are prone to earthquakes.

In option 2 I have shown the population of people with age 70-74 to the total population of the respective counties in percentage. I used symbolization and normalization with Tot_Pop for this.

Discussion:

1. **What area of California are most susceptible to earthquake hazards in terms of earthquake frequency, magnitude and population density?**

   The southern most part of California are the most susceptible to earthquake hazards as a cluster is formed in the region with higher density. The second most regions is the central part towards the west- somewhere around San Jose and Santa Clara counties.

2. **Limited access highways can move the largest number of people. What area of California would be most susceptible to earthquakes causing damage to Limited access highways?**

   Like previous answer the limited access highways in the south like Riverside county, San Bernardino county, San Jose counties will have higher damage and are susceptible to earthquake causing damage.

3. **What spatial patterns do you see emerging in your map? What might those patterns imply for disaster management issues?**

Riverside county, San Jose county, San Francisco county and counties in south are more susceptible to earthquakes. There is a point pattern emerging in the map. Based on these patterns, the areas that are more prone to earthquakes can have pre-implemented measures in order to save lives and damage during an earthquake. And San Francisco being a costal place there are possibilities of a tsunami. These patterns can be used to take measures in advance like having emergency systems near schools and counties that have more elderly people to help them evacuate during an earthquake. As observed in the Faultline map the southern region and the eastern region have more fault lines and are more prone to an earthquake.