**GIS Lab 3**

**Options Selected**

**Option 1 -** *Find and incorporate additional relevant datasets into the map. Ideas include fault lines, census tracts, evacuation shelters, fire and police department locations and anything else that might be relevant to earthquake activity. Stylize these layers accordingly in terms of figure/ground relationships and visual hierarchy.*

**Option 3 -** *Have the map focused on a specific California county, as opposed to the state level like was done in the previous steps. A map of a specific county could show all of the available road types for a more detailed analysis of evacuation options in case of earthquake activity. Use an inset map to show the area of interest within the state of California.*

**Answers to Discussion Questions**

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

**Answer 1 → San Bernardino County seems to be most susceptible to earthquake hazards when we consider the earthquakes and the population density for the area.**

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?

**Answer 2 → Kern County, Fresno, San Bernardino would all be susceptible to earthquakes causing damage to Limited access highways thus reducing movement drastically.**

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

**Answer 3** → **Clustered patterns seem to be one of the most seen in a number of regions for earthquakes when considered by magnitude. It implies that people in such areas need to have the highest level of preparedness and ability to handle such situations. Especially in the areas of Southern California. In some parts of Northern California there seems to be a random pattern for the earthquakes. This may be due to how the landscape is for that region. Population is low in these areas, but evacuation can become a task if processes are not thought through beforehand.**

**Maps Created**

I have created two maps, one for California Earthquake Hazards and another for focusing more on San Francisco. You can find the other map on the following page.



