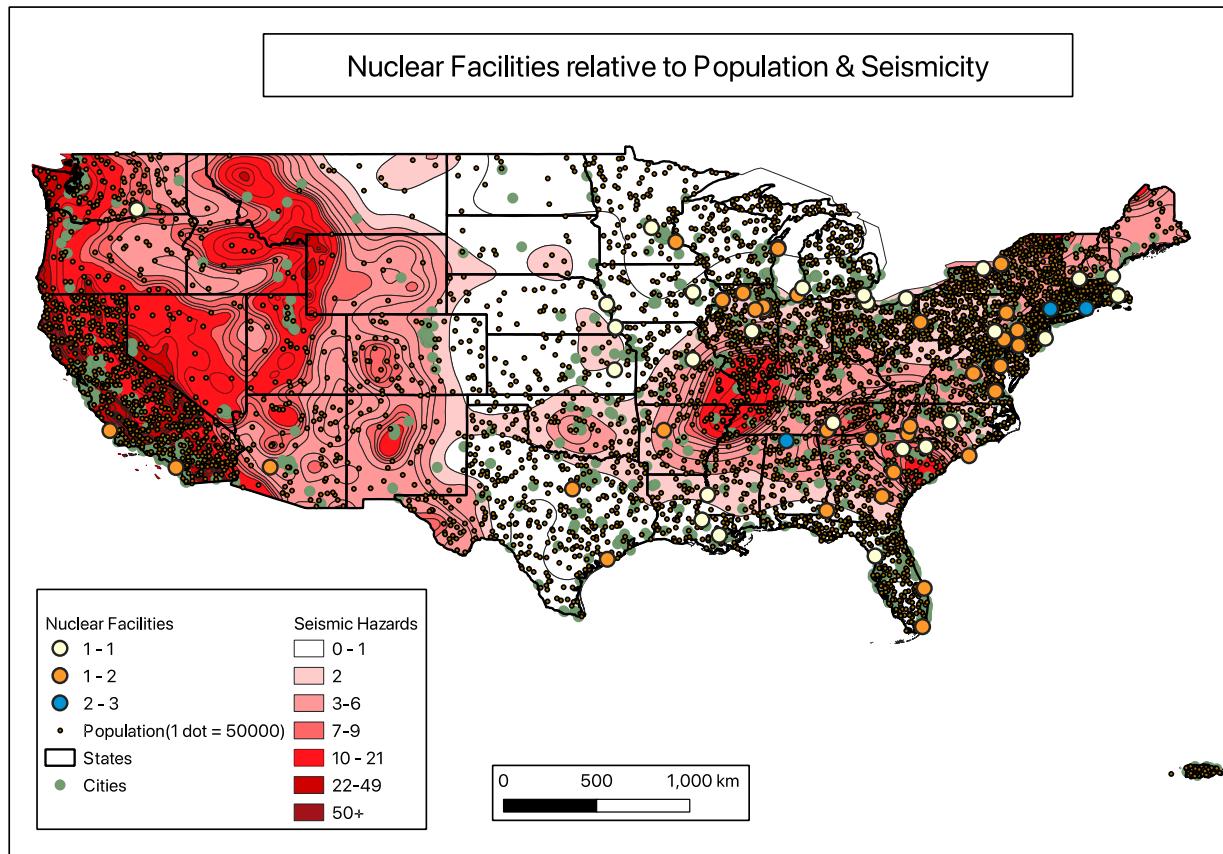
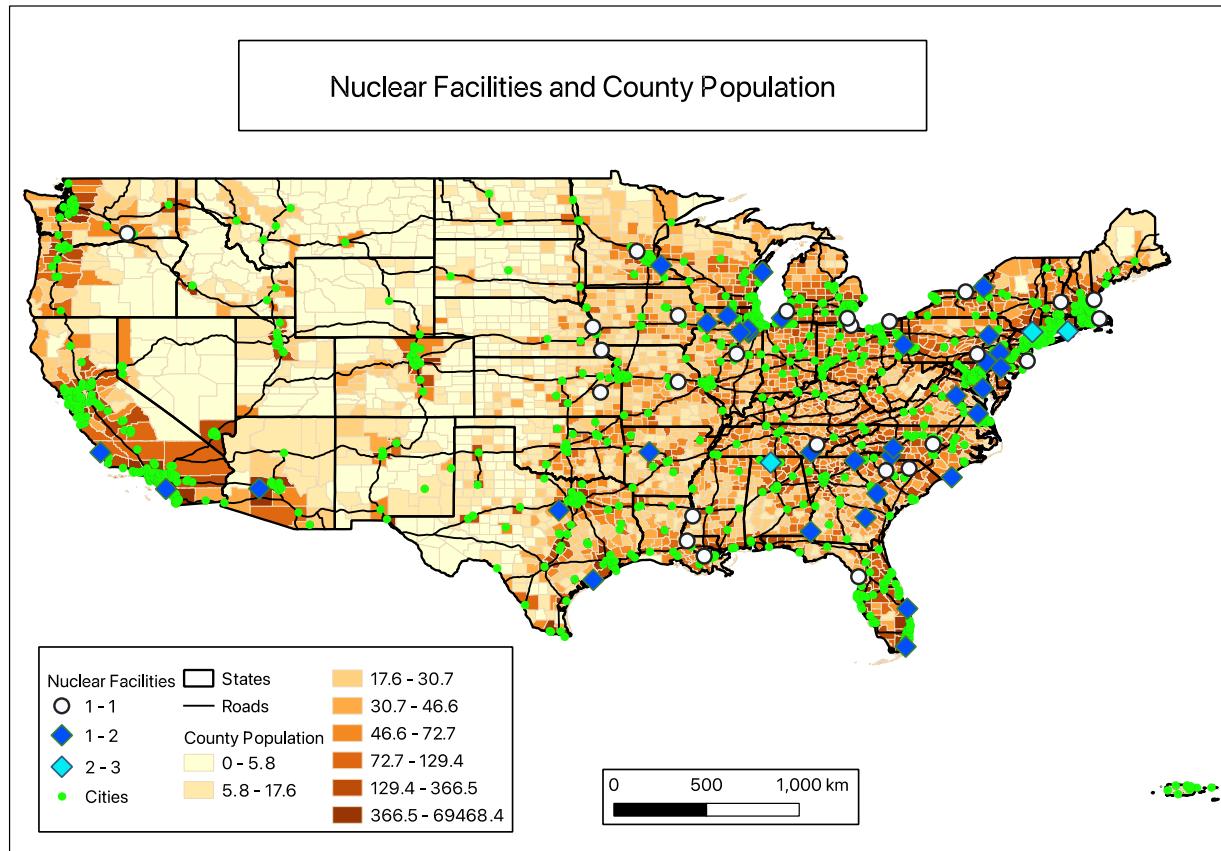


Assignment 5

Map 1



Map 2



1. In one or two sentences, describe (1 points each) ... :
 - a. The pattern of power plants relative to population?

There is a significant amount of power plants on the eastern side of the US compared to the west, middle, and southern states. The pattern is that power plants are heavily concentrated in populations that fall in the three highest quantiles ranging from 72.7-129.4, 129.4-366.5, and 366.5-69468.4.

- a. Compare dot-density state-level map to county-level thematic map with respect to the location of power plants.

With respect to the location of power plants, both dot-density state-level and county-level thematic maps show similar characteristics in that power plants are located in heavily concentrated areas of people.

1. Using the data layers in the basemap, add another layer of interest to one of your maps and describe what you see (**1 point**).

I added the road layer and it's interesting to see how interconnected the states are to each other. However, I would say that there appears to be more roads on the eastern side of the US and slowly decreases in frequency as it goes to the west side. Interestingly enough, almost all nuclear facilities are located next to or on roads.

2. Pose a question about nuclear power reactors or nuclear power reactors and earthquake risks that you could **only** answer with spatial data (that is, which you could not answer with tabular data alone)? (**1 point**) Examples: How far is each reactor from the nearest fault line? Or what is the population estimate of all persons living within 25 kilometers of a nuclear power plant in the US?

What is the level of seismic hazard for those wanting to live on the west coast with respect to nuclear facilities?

8. What are the summary statistics (count, min, max, mean, sum, and std dev) of reactors?

Count – 65

Min – 1

Max – 3

Sum – 104

Std dev (pop) - 0.576461

Std dev (sample) 0.580948

9. Which state has the most nuclear reactors? And how many reactors does it have?

Answer = Illinois. It has 6 nuclear reactor sites but 11 nuclear power plants.

10. How many states have nuclear reactors?

Answer = 31 states have nuclear reactors.

11. Find Indian Point Power Plant. What county and state is it in and how many reactors does it have?

Westchester County, NY. Has 3 reactors.