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Topic: Los Angeles' Sea Level Vulnerability Index

Peer Review Assessment

1. Is the question clearly stated and well-motivated?

Absolutely, the question is looking to determine which areas of Los Angeles would be the most at risk to flooding, in a geographical sense, but also that of socio-economic criteria as well. I like how the motivation stems from being a local of Los Angeles and answering a question that seeks to help the city. The only feedback I really have in motivation and introduction is just providing more information if the flooding damage assessment/risk is due to hurricanes, rising sea levels, storm water runoff, etc.... It's mentioned that flooding causes the most damage as a natural disaster, but is that due to hurricanes, for example?

2. Does the data analysis help you understand the context?

The author has mentioned that the coding will come in the next month of the semester, and I imagine a large part of it will be done by the coding review, but I think with the data sets and information intended to be added in, that it will make for a great analysis. I like how the author broke down what he is going to include for the social vulnerability, and physical vulnerability assessment.

One thing I found interesting is that a minority language/status of speaking English less than well is considered for social vulnerability, as per the Center of Disease control. This isn't something that the paper needs to add btw, but I like how it makes me wonder if by 2050, speaking Spanish will be crucial in LA, in addition to speaking English.

3. Are the methods clearly defined?

The author will use ACS data, sea level data and land/raster data in R, and create three maps that assesses the physical vulnerability, social vulnerability, and a combination classification map identifying census tracts with both physical and social vulnerabilities.

4. Are the data and methods well-designed to answer the question? Any gaps?

The data is well-designed to answer the question, and I can see how the coastal vulnerability ranking is calculated, but it would be helpful to include how the social vulnerability will be calculated. For instance, what are the rankings and numbers used to classify what is a low or high for the number of renters? Or the lack of vehicle access? The methods section just needs to show how the scores are calculated, such as a formula or model.

****This is only from reading the paper, I see how the presentation has much more information on how the calculations are done, along with some results already!**

5. What would be a good extension for the analysis?

Honestly, this is a great analysis and topic (for both the paper and the presentation). I see that there is a social vulnerability index in the presentation, and I think it would be great to add what the identified neighborhoods are by name, for both the extreme low and the extreme highs, and say what really differentiates them.

Also as stated before, maybe showing the model or how the scores/calculations are done in the methods section will add some clarity on how its calculated. I'm wondering if there a regression that can be included as well, to illustrate what features are significant, but that could be further research after this project. The physical and social features are used to calculate the vulnerability scores, but is there a way to determine which ones are significant?

6. What would be a good extension for the presentation?

As above, adding in and identifying the neighborhoods of the social vulnerability index that are on the highs and lows of the model, with some distinguishing features, can add some context to the city of LA for non-residents.

7. How is the structure of the paper?

The paper follows a classic research paper format, with introduction, motivation and literature review, methods, results, and conclusion/recommendations. There's not much more to say on this, it's done well.

8. Any advice for structuring it?

I don't have any advice on structuring it, but maybe future considerations can be looking into how virtual twins play a role in city planning, and maybe there's a possibility of this research evolving into model simulations and assessments with a virtual twin city of LA. This could be a direction to look into for recommendations after the data analysis is done, and the author has his findings.