Final Project Report

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1 Introduction

1.1 Problem Statement

So far, our simulations have considered the Net Present Value of home elevation under the assumption that homeowners will pay for their home elevation out of pocket. In reality, people have to chose between paying out of pocket (if this is even something they can afford), taking out a loan, or saving up.

Each of these options has tradeoffs in upfront cost and in NPV. In this paper, we will analize these tradeoffs.

1.2 Selected Feature

Describe the feature you have selected to add to the existing decision-support tool. Discuss how this feature relates to the problem statement and its potential to improve climate risk assessment.

2 Literature Review

Provide a brief overview of the theoretical background related to your chosen feature. Cite at least two relevant journal articles to support your approach (see Quarto docs for help with citations). Explain how these articles contribute to the justification of your selected feature.

3 Methodology

3.1 Implementation

You should make your modifications in either the `HouseElevation` or `ParkingGarage` module. Detail the steps taken to implement the selected feature and integrate it into the decision-support tool. Include code snippets and explanations where necessary to clarify the implementation process.

3.2 Validation

As we have seen in labs, mistakes are inevitable and can lead to misleading results. To minimize the risk of errors making their way into final results, it is essential to validate the implemented feature. Describe the validation techniques used to ensure the accuracy and reliability of your implemented feature. Discuss any challenges faced during the validation process and how they were addressed.

4 Results

Present the results obtained from the enhanced decision-support tool. Use tables, figures, and visualizations to clearly communicate the outcomes. Provide sufficient detail to demonstrate how the implemented feature addresses the problem statement. Use the `#| output: false` and/or `#| echo: false` tags to hide code output and code cells in the final report except where showing the output (e.g.g, a plot) or the code (e.g., how you are sampling SOWs) adds value to the discussion. You may have multiple subsections of results, which you can create using `##`.

5 Conclusions

5.1 Discussion

Analyze the implications of your results for climate risk management. Consider the context of the class themes and discuss how your findings contribute to the understanding of climate risk assessment. Identify any limitations of your approach and suggest potential improvements for future work.

5.2 Conclusions

Summarize the key findings of your project and reiterate the significance of your implemented feature in addressing the problem statement. Discuss the broader implications of your work for climate risk management and the potential for further research in this area.

6 References