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| **Client:** | Cristiane Ferrarezzi | **File:** 25-039 |
| **Dept:** | Environmental and Ecological Engineering | **Faculty:**  **Student:** |
| **Date:** | 4/2/25 | **Initial Meeting:**  **Follow-up:** |
| **Consultant and Attendees:** Sumeeth Guda, Cristiane Ferrarezzi, Dr. Bruce Craig, Dr. Andrew Whelton | | |
| **Statement of Problem:**  What is the impact of the insurance companies with the disaster response during the 2025 Los Angeles fires? | | |
| **Goal of this Project:** Publication of Results | | |
| **Background:**  The client is a PhD student in the EEE department who is creating a survey to understand the needs and experiences of households who were impacted by the 2025 LA fires. This survey will ask about:   1. Property and household characteristics. 2. Experiences and attitudes when participant first returned to their property. 3. Property cleanup perceptions and activities taken. 4. Experience and interactions with insurance companies. 5. Unanswered questions and unanswered future plans.   The households and participants who will answer the survey are individuals who lived within and adjacent to the fire perimeters for both the Palisades and Eaton communities. The client formulated 19 different Hypotheses from the Survey which they will use for a journal publication. The primary reason for coming to the SCS is that they wanted statistical consulting to ensure they account for as many correlations for their journal publication. As well as learning the techniques of how to analyze and formally test each of the hypotheses. | | |
| **Progress of project at this time:** Design (No Data Collected) | | |
| **Relevant information presented at the meeting:**  The fire impact survey for the 2025 Los Angeles fires, was developed by the client Cris and her advisor, is designed to assess the effects of wildfires on local communities, focusing on key factors such as proximity to the fire, health impacts, and environmental consequences, including the specific impact on electric vehicles. The survey also considers the possibility of integrating this data with another survey for more comprehensive analysis. The survey will be conducted online through a community action group within the communities of Palisades and Eaton, CA. They will target two main groups: individuals directly impacted within the fire perimeter and those in adjacent areas who may experience secondary effects from the fires. To increase participation and ensure broader reach, additional outreach methods include door-to-door sampling and distribution of the survey link through influential community members such as the policymakers.  During the meeting, Dr. Craig and Dr. Whelton expressed concerns about potential biases in the data, particularly regarding the inclusion of FEMA’s location data which could be used to find and track the displaced community members. Since FEMA is also being assessed in the survey, its inclusion might skew the results, as the survey evaluates public opinions on FEMA’s response efforts. Another challenge is that many affected individuals rely on decentralized communication platforms such as WhatsApp, which could affect how responses are gathered. Cris noted that, unlike more targeted fire impact surveys, this study aims to capture a broad range of impact sources in a single instrument, making it a more expansive but complex survey leading to richer data. The end goal of this survey is to track how insurance companies behave with the environmental damage of two different communities of different affluence.  The survey has been finalized and is undergoing a Spanish translation to ensure accessibility to Spanish-speaking participants. It is scheduled for release on April 3, 2025, and will remain open for 30 days to capture responses, especially in case significant events or developments occur during this period. Data collection will conclude by May 1-2, 2025, with a final deadline looming due to the semester closing at SCS. The survey team is aware of the tight timeline and the need to provide preliminary findings quickly, since the policymakers would like to have an impact summary report as soon as possible for effective decision making. | | |
| **Recommendations for Design and/or Analysis:**   * Given the client's limited experience with statistical analysis and programming in R or SAS, the consultant will assist by sharing an introductory R document and offering guidance on statistical methods. * The consultant will begin with exploratory data analysis (EDA) to understand the response patterns from the survey before moving on to hypothesis testing. Since due to timing, it is not possible to analyze all 19 of the hypotheses. Hence it was recommended that the client map the survey questions to the key hypotheses to ensure that important variables are addressed. Once the hypotheses are filtered down into 4-5 representative hypotheses for analysis, the consultant will also create a dummy dataset to refine the analysis methods before applying them to the actual data. As well as explain to the client how to interpret the results. * Since Dr. Whelton wanted an impact summary report to be shared with the policymakers and affected communities to demonstrate the survey's value. Similar to their 2018 report which they created for the Campfire. It was recommended that the client highlight key findings from the report that they want to replicate in this current study. Afterwards share with the consultant regarding what findings they want to present in the new report. | | |
| **Who will carry out these actions?**  Client:   * Reduce the 19 hypotheses to 4-5 hypotheses that are important to the study. * Map the survey questions to the 19 hypotheses. * Share the 2018 impact report with the consultant containing the important statistics and insights they want in the 2025 report.   Consultant:   * Share the SCS R programming document with the client. * Once the hypotheses are collected from the client, create dummy data and an R file containing the analysis techniques to solve each hypothesis. Explain to the client how to understand the results. * Present the findings in a document similar to the 2018 Campfire impact report. | | |
| **Status:** Follow Up Needed | | |

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