Wildfires

Group Members:
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Project Objective:
Our objective with this project is to demonstrate both the increase in severity and frequency of wildfires in Washington, Oregon, and California using data collected between 1992 - 2015. With this project we are attempting to provide meaningful visualizations of the data that can be interpreted by all people to increase awareness of climate change's effect on the west.

Project Approach:

The project will consist of two phases, the research phase and the implementation phase. During the research phase, we will start by exploring what data is being collected for wildfires in the United States and how each of these data points come together in an overall description of the fire. Through this, we hope to gain understanding enough to critique the charts and figures being presented to the public and design more impactful formats to display this information. In this phase we will also investigate the tools available for analyzing and visualizing large datasets and select one to create a visualization with. At the end of this phase, each team member will have selected the tool they wish to use while working with the wildfire dataset.

The second phase of this project will be a set of visualizations using the wildfire data set designed to support the national Fire Program Analysis system. This data set consists of geospatial and temporal data from fires between 1992 and 2015 in the United States. Each team member will be responsible for generating a visualization using the tool they selected in phase one of the project. To better scope this project, we will be restricting our visualizations to only California, Oregon, and Washington. At the end of phase two, we will have generated four different visualizations on the data set using different tools and design strategies.

At the end of this project, we would like to compare the visualizations that were made during phase two to what figures are being supplied by wildfire reporting services to determine if we were able to show more vividly the change in wildfires in the west.

Team Structure:
Phase one of this project will have all team members working together to collect sources on wildfire data collection and visualization tools. Once we have built our knowledge base and selected our tools, the team will split up to work on individual implementations using the same wildfire data set. Sara will work with GeoPandas. Joshua will work with GeoPandas and geoplot. Jacob will work with PowerBI using ArcGIS to create an interactive heat map of wildfires. We are striving to have all three group members equally contribute to the work of this project. Jacob will serve as team lead in order to keep the project on track and make sure milestones are completed.

Project Milestones:

1. Sources will be collected about current wildfire data reporting and visualization tools
2. All group members will select a visualization tool to work with
3. First visualization will be made with the selected tool.
4. A midpoint review will take place, with group members critiquing current visualizations and providing suggestions for improvement
5. Visualizations will be finalized and assembled to compare to the charts collected during phase one of the project.