# DAP 2 Final Project

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## Research Question (Hallie)

## Approach

### Data

Our datasets come from the LA County Open Data Website, a public data repository with many datasets measuring data on a municipality level regarding a broad range of topics. We chose this source because of the breadth of available information which allowed us to explore a unique connecton, namely safe play places and other quality of life (QOL) factors, and for ease of merging the datasets because of common nominal variables to identify the municipalities.

Safe play places are defined as "Percentage of Children (Ages 1 to 17 Years) With Easy Access to a Park, Playground, or Other Safe Place to Play." We viewed this as a unique quality of life indicator as its temporal connection to the other QOL measures we explored may go in both directions.

The links to the data dictionaries for each of the 3 data sources used can be found in the README.txt file. ## Analysis Our plan for this analysis was to create visualization tho demonstrate patterns in the data that may be of intrique for further rigorous examination. In this regard, we feel we have succeeded in creating charts, including a Shiny application, that display novel and interesting patterns worth further exploration.

### Coding

Our data analysis and visualization used the packages Pandas for data cleaning and transformations, Altair for visualizations, and Shiny to create the interactive application.

# Plots

## Plot 1


Figure 1: Exploring Life Expectancy and Median Income by Safe Play Place Access

This plot shows the relationship between Median Income and Life Expectancy with each point being a single municipality, grouped by whether that municipality had below or above average safe play place access. You can see two distinct trends for each group, with the below average group having a higher rate of change by median income and both a lower floor and ceiling of both QOL metrics.

## Plot 2

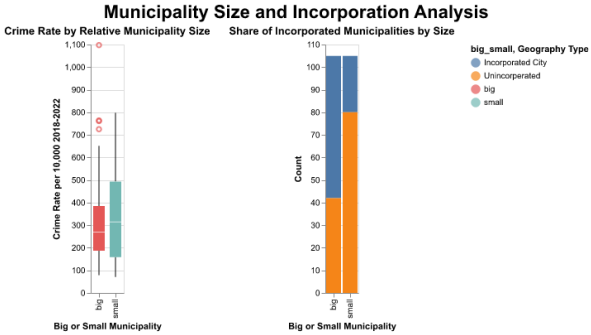


Figure 2: Municipality Size and Incorporation Analysis

This image demonstrates the potential relationship between municipality size and incorporation status with crime. We see that smaller municipalities have a higher average crime rate

and variance, while large does have several extreme high outliers which are likely dense and poor cities. Smaller municipalities are more likely to be unincorporated.

### Plot 3 (From UI)

Hallie what do you think of just one screenshot and a link to open the app or something? No that much space.

## Policy Implications and Future Research (Hallie)