**Drawing the Poverty Line**

Focusing on two primary research questions:

1. What are the current poverty rates among working adults in Los Angeles?

2. How to decrease risk of homeless

People living in poverty can be found in almost every part of American cities. As result, these socioeconomic disadvantages play a role in minimizing the average of achievement within the community. Poverty maps based on a series of poverty metrics, when properly built, offer a clear view of the location as well as the interconnected deprivations of the poorest, allowing interventions to be planned and targeted more efficiently. When we can get a good picture of poverty-stricken areas and the problems that accompany it, then we can begin dissecting the problem.

The development of poverty maps and infrastructure-related data will be especially useful for government planners. The various data layers can also be mixed, yielding insightful perspectives into suffering and inequality that are difficult to express with only raw data on a page. One of the advantages of calculating poverty levels is that the results can be disaggregated and used to build poverty charts. These maps provide an instant interpretation of where poverty is most severe and where solutions are most required.

**Thoughts:**

Data sources, Conclusions, and Mathematical routines vary between methodologies. Therefore, it is important we understand the analytical foundation of emerging poverty maps. Similar analysis made by articles include using a regression model to show daily consumption expenditure to conclude the substantial variability across countries. A Cluster model are also present in most of the articles read that show significant spatial clustering of poor and non-poor areas.

**Models:**

Regression, Clustering, and Correlation

**Articles:**

The Topography of Poverty in the United States: A Spatial Analysis Using County-Level Data From the Community Health Status Indicators Project

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2099276/

Using GIS and Spatial Statistics to Target Poverty and Improve Poverty Alleviation Programs: A Case Study in Northeast Thailand

https://www.researchgate.net/publication/241014524\_Using\_GIS\_and\_Spatial\_Statistics\_to\_Target\_Poverty\_and\_Improve\_Poverty\_Alleviation\_Programs\_A\_Case\_Study\_in\_Northeast\_Thailand

Poverty Mapping with Geographic Information Systems

https://etd.lib.metu.edu.tr/upload/12608009/index.pdf

**Relevant Data Sources:**

Main Road Density, Population Growth, Average Household Size, Demographic Variables, Urban Density, Economic Activities, Education, Diversity, Traffic Framework, Population

**Models:**

Regression, Correlation, Clustering, Timeline

**Poverty Variables:**

Daily Consumption, Food Expenditure, Asset Wealth, Household expenditure, Household consumption, Per Capita Income, Household Income

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| **Question:** | **Method:** | **Analysis:** |
| 1. Where are people becoming homeless? | Risk Map, visual analysis of the map to get a general idea. | Enables us to identify specific boundaries ranging from neighborhoods to ZIP codes that give us available data for risk assessments. |
| 2. How to determine the best locations for investment in new resources. | Symbology, charts, graduated colors | Analyze spatial patterns to find locations and the candidates for rapid response. Interventions aimed at focusing on providing what they precisely need to move out of homelessness for good. |
| 3. Where are the areas with the highest population densities? | Hot Spot Analysis, heat map, dot density, | Using Hot spot analysis to help identify where people experiencing homelessness concentrate and explored variations in homeless community. |