**0 Introduction**

Outline the problem briefly and your proposed solution briefly.

Proposed solution=re-allocating information published at the Bureau of the Census and aggregated to census block groups to neighborhood and communities instead. Weighted average approach based on the number of people or the number of housing units.

**Literature review**

The United States Census Bureau, officially the Bureau of the Census, is a principal agency of the U.S. Federal Statistical System, responsible for producing data about the American people and economy. The Census Bureau mission is to serve as the nation’s leading provider of quality data about its people and economy. It runs under Title 13 and Title 26 of the U.S. Code. The Census Bureau collects the information about American Community Survey (ACS), Census of Governments, Decennial Census of Population and Housing, and Economic Census. It deals with different sectors such as Business and economy, Education, Health and Research, Income and poverty, Population and Housing, Employment, International trade in the nation. It includes photos, publications, videos, fact sheets, blogs and working papers related to data. It includes different surveys and programs like American Community Survey, American Housing survey, American business survey.

<https://www.census.gov/about/what/census-at-a-glance.html>

<https://www.census.gov/data/what-is-data-census-gov/about.html>

The American Community Survey (ACS) is a demographics survey program conducted by the U.S. Census Bureau. It helps local officials, community leaders, and businesses understand the changes taking place in their communities. It is the premier source for detailed population and housing information about our nation. It is a yearly basis survey and gives information about how federal and state funds are distributed each year. It holds different tables like Selected social characteristics, selected economic characteristics, selected housing characteristics, Demographic and Housing estimates. It regularly gathers information previously held only in the long form of the decennial census. Every 10 years, the U.S. Census Bureau conducts a census to figure out the number of people living in the United States. The data collected by the decennial census are used to apportion the number of seats each state has in the U.S. House of representatives

The data collected by ACS is used by many public-sector, private-sector and not-for-profit stakeholders to distribute funding, track shifting demographics, plan for emergencies, and learn about local communities.

<https://www.census.gov/programs-surveys/acs>

<https://www.census.gov/programs-surveys/acs/about.html>

Census tracts are small, relatively permanent statistical subdivisions of a county. It has 2,500 to 8,000 people. Block Groups (BGs) are statistical divisions of census tracts, are generally defined to contain between 600 and 3,000 people and are used to present data and control block numbering. Statistical areas bounded by visible features such as roads, streams, and railroad tracks, and by nonvisible boundaries such as property lines, city, township, school district, county limits and short line-of-sight extensions of roads.

<https://www2.census.gov/geo/pdfs/reference/GARM/Ch8GARM.pdf>

USE PRIMARY SOURCES (including sources at the Census website)

**Methods**

Census Bureau is used as a main source of data. The data related to American Community Survey, programs and related articles are present in census bureau website. The information is derived from these publications. The mapping of subdivisions counties, tracts, block groups, pumas and census blocks are plotted using R studio by TIGER line/Shapefiles. The shapefiles for Community Districts and Neighborhoods are given by Neal Wilson. Earlier to 2006, TIGER lines are used and shapefiles data from 2007 to 2021 are included.

The shapefiles of entire United States which divides into different states, and under states different counties are included. Each state has its own FIPS code (20 – Kansas; 29 – Missouri). States are divided into counties which hold different extension of codes. Census tracts have 2500 to 8000 people. PUMAs have around 100,000 people. Block groups have 600 and 3000 people. Census blocks are the smallest geographical areas. **Census Bureau also has all the data about the population, housing, sources for The AC**S data can be found in data.census.gov website. The data includes population, number of housing units in the counties and other subdivisions.

<https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.html>