

Banking Desert in the Coachella Valley

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PPD631 Project

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April 2020

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Introduction

The Coachella Valley is a beautiful region in the Riverside county, containing nine cities and various communities. Coachella Valley is a place in California known for wintertime vacations and several internationally recognized events like the Coachella Music Festival and Desert Classic of PGA tour. However, the daily life of residents in the Valley is far different from the view of the visitors. Over half of Coachella valley residents live at or below 200% of the federal poverty level (County of Riverside, 2020). Agriculture and unstable annual events jobs are the main sectors that support the local economy (Palafox, 2020). On the way to understand the root causes behind the financial hardship, one problem found is the limited access to financial institutions. By connecting to Lift to Rise, which is a local nonprofit in Coachella Valley, they reported a lot of the residents said they have difficulties in getting access to banks and credit unions (Palafox, 2020). The situation of the “banking desert” is revealed as residents feel there are no banks available near the community, and some don’t have the bank accounts. The problem can be essential as many microfinance literatures proved that being able to get loans from financial institutions is an important step for many small entrepreneurs to start or maintain their business and get rid of the poverty. (Brau&Woller, 2004) In this project, using ArcGIS to map out the relations between bank locations and various indicators will support identifying the problem of “banking desert” and the impact it brings to the Coachella Valley community.

Problem Statement

The norm of “banking desert” emerged in 2009, as almost 5000 branches closed due to the financial crisis (Morgan, 2016). Most researches support that low-income community in the rural area is more affected by the “banking desert,” and it leads to many severe long-term consequences like credit invisible and higher delinquency rate (NAFSA, 2019). A general definition of “banking desert” is that “a geographic area with no bank branch within 2 miles of the center of a census tract in an urban area, within 5 miles in a mixed area or within 10 miles in a rural area” (Covas, 2019). Some other literature evaluates the banking desert for a tract with a 4000+ population. (Ergungor, 2007) Giving by the population and landscape of the Coachella Valley, I provide a more strict definition of banking desert as a census tract with 2000+ population has no bank branches or credit unions within 5 miles.

Before the next step, we need to understand how to define and apply the “banking desert” in this case. Through communication with Lift to Rise, the lack of access to financial institutions can be understood from two perspectives: First, there is a limited number of banks available in the community, which is “banking desert.” Second, barriers like low credit score, complicated registration, little trust with banks may obstruct residents to connect with financial institutions. In fact, Lift to Rise has initiated different interventions towards those two aspects from last year. (Palafox, 2020) In this project, I will focus on the “banking desert” only; I will try to answer if there is a “banking desert” in the Coachella Valley and to what extent does it contributes to the lack of access to financial institutions.

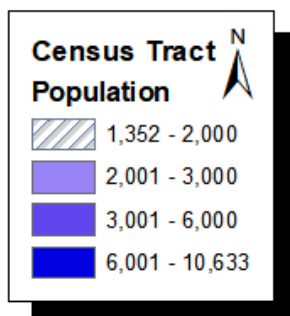
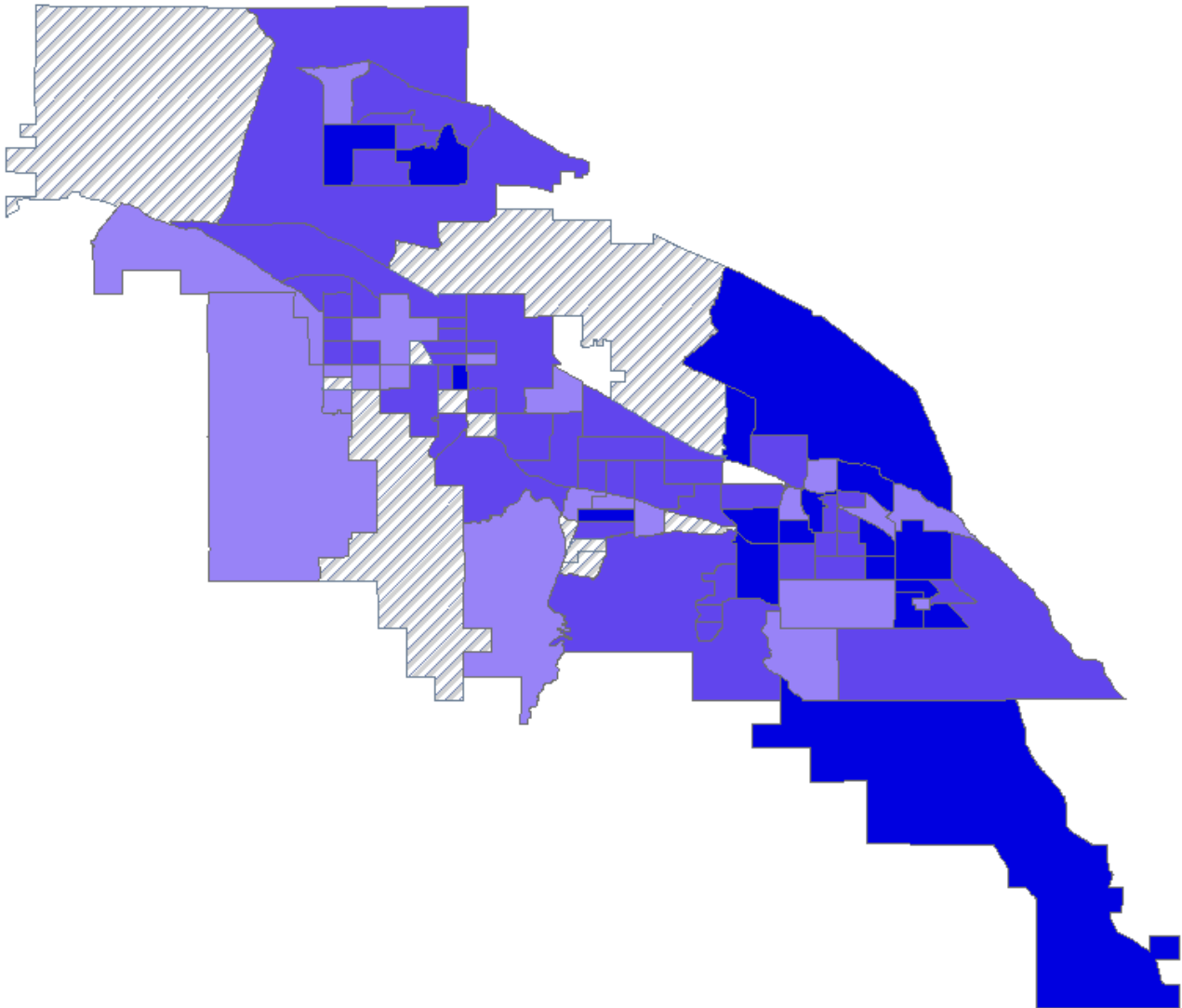
Data

The data applied in this project is obtained from different sources. The data for county, city, and census tract is collected from Tiger/line shapefiles at Census Bureau. The data for the population is obtained from the American Community Survey at Census Bureau. The data for financial institutions was collected from FDIC Insured Banks, and NCUA Insured Credit Unions at Homeland Infrastructure Foundation-Level Data (HIFLD). The data for poverty and income was obtained from Neighborhood Data for Social Change at Sol Price Center for Social Change, USC. The data for bus stops was obtained from National Transit Map Stops at Geospatial at the Bureau of Transportation Statistics.

Data Analyzing

In the first step, I want to map out the comprehensive view of the Coachella Valley. The shapefiles of census tract and cities were added into ArcMap. I edited the tracts out through checking if it overlaps with nine cities of Coachella Valley. Then I joined the data of population into those census tracts through Geoid. The map will support to identify which parts of the Coachella Valley qualified for the “minimum population” (2000+) needed to be considered as a possible banking desert.

Coachella Valley Population, 2020



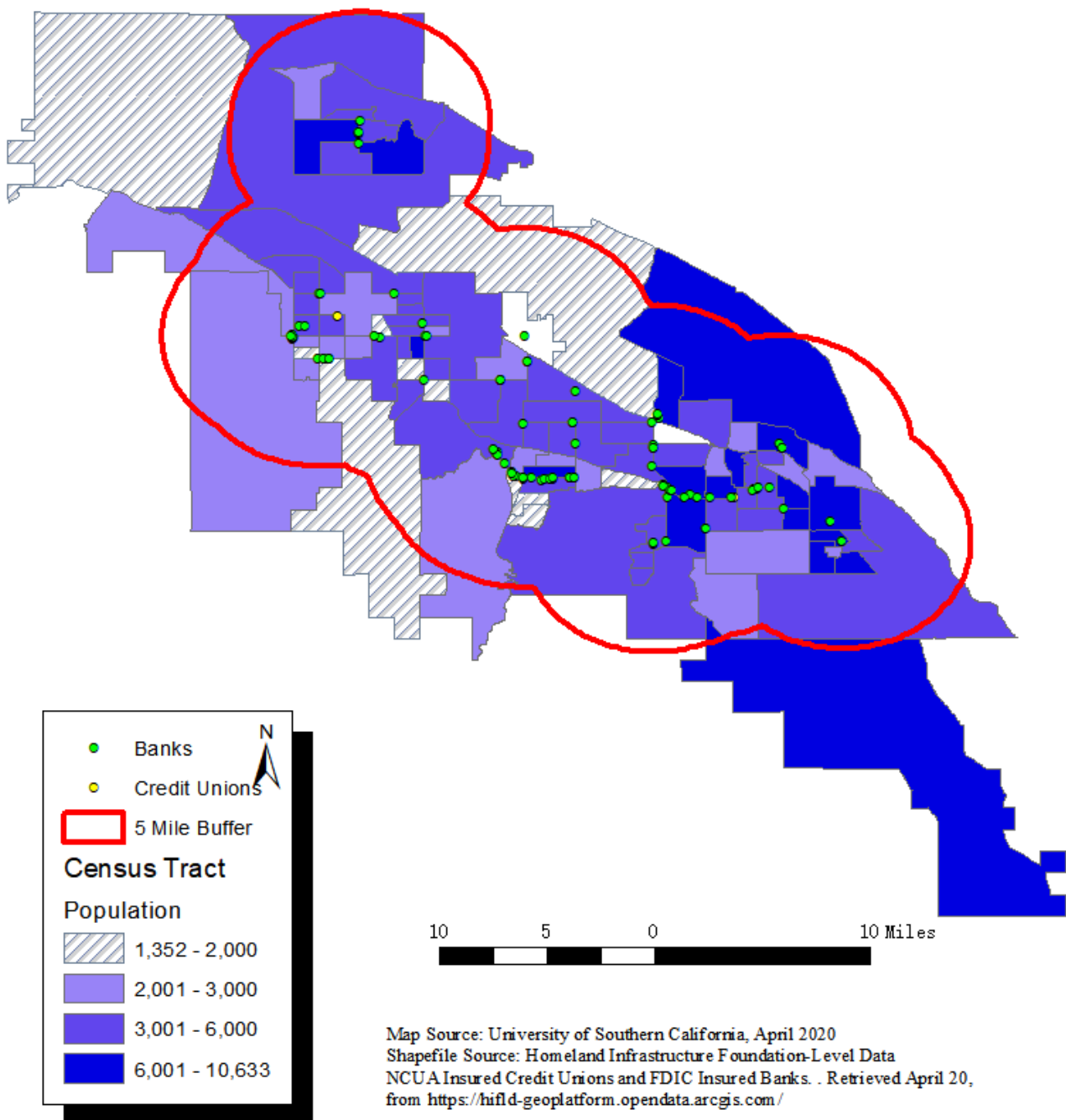
Map Source: University of Southern California, April 2020
Shapefile Source: US Census Bureau. (2016, Jan 1)
2019 TIGER/Line Shapefiles for: California. Retrieved April 12,
from US Census Bureau: <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>

In the second step, I added the shapefiles of credit unions and bank branches into the map. In Figure “Coachella Valley Financial Institutions, 2020”, through editing, I picked out the banks and credit unions within the region and then created a buffer around each of these institutions. I merged the boundaries of the buffer with a radius of five miles. This map will help identify how many tracts are not covered by bank service and can be considered as a banking desert area through definition. From this figure, despite tract 456.05 on the bottom right corner, all other tracts have at least one bank branches within 5 miles of the center. Through our definition, only tract 456.05 can be considered as an area of “banking desert.”

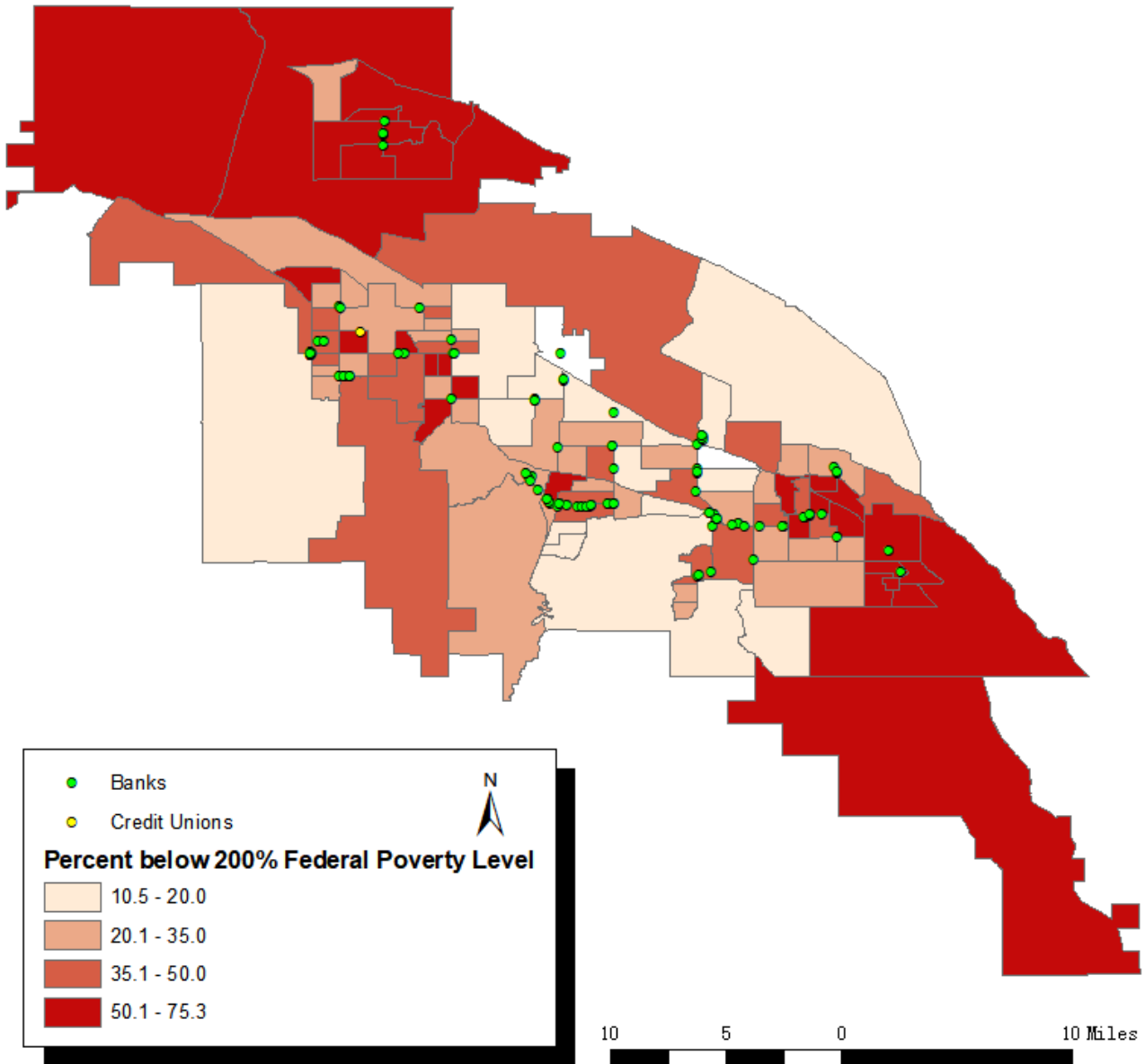
Next, I joined the data of residents living at or below 200% Federal poverty level to the census tract. In the Figure “Coachella Valley Poverty, 2020”, the percentage of residents living in poverty was edited into a thematic map. I combined this layer with the locations of financial institutions. This map will help identify the relationship between poverty and bank distribution. In this figure, the central region is clustered with financial institutions, and the central part showed a lower poverty rate than other areas. However, the census tracts within the center have mixed different levels of poverty rates.

In the end, I added the shapefile of the bus stop to the layer. I created a buffer of 0.25 miles around the bus stop within Coachella Valley, which is the typical walking distance to transit (FHWA, 2013). The map “Coachella Valley Transit, 2020” is presented with the bus stop layer, location of financial institutions. This map will help to understand if people can get access to financial institutions with public transit. In this figure, almost all the financial institutions are located within five minutes’ walk (0.25mile) of a bus stop; it shows that bank branches are reachable for residents who use the public transit.

Coachella Valley Financial Institutions, 2020

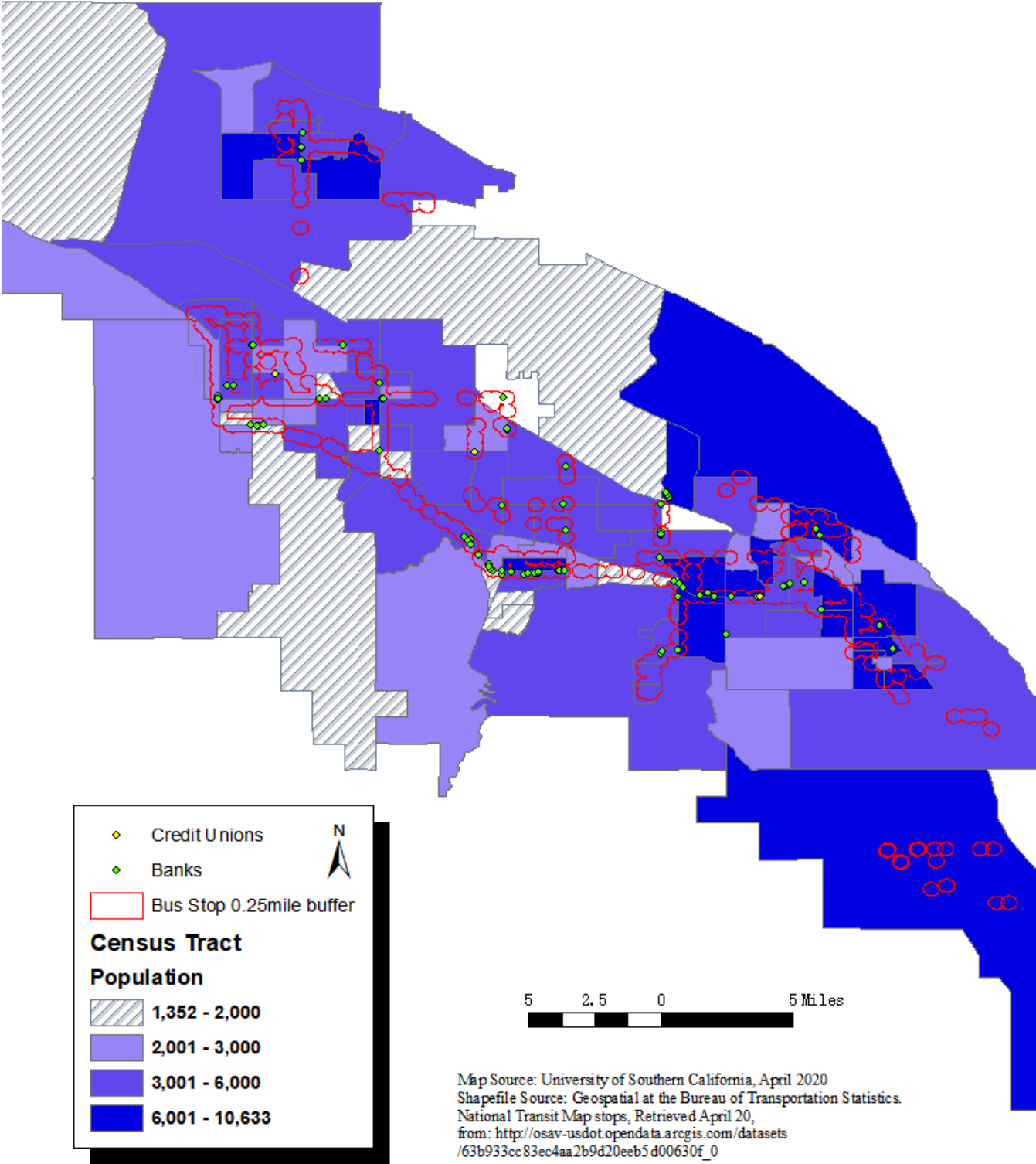


Coachella Valley Poverty, 2020



Map Source: University of Southern California, April 2020
Shapefile Source: US Census Bureau.
American Community Survey: Retrieved April 20,
from US Census Bureau: <https://www.census.gov/programs-surveys/acs/data.html>

Coachella Valley Transit, 2020



Conclusion

After analysis, it is quite surprising that the result I got is different from what I predicted. In general, the maps showed that Coachella Valley is not a “typical” area of banking desert; the majority of the residents have at least one bank branch within 5 miles of the community. Meanwhile, most residents have access to financial institutions through public transportations. The only exception within the Coachella Valley is the southeast area of the Valley; there are no financial institutions available within 5 miles of the tract. However, unlike the central region, the southeast area of the Coachella Valley is rural. If we use “no bank branches within 10 miles of the tract” to define the “banking desert,” then it will not be considered as an area of banking desert. The map also shows that there is a relationship between bank branches and poverty in the region. Areas with less or no financial institutions tend to have higher rates of poverty and lower income. In general, the findings suggest that the banking desert may not be the driven factor for lacking access to financial institutions in the Coachella Valley; other barriers for the individual to access the financial institutions may play a more influential role in this problem.

Limitations

One limitation of this study is the institutions I chose may not reflect the comprehensive financial map of the region. Financial services also include alternative loan providers such as pawnshops, payday loan stores, or private lenders. It is unknown how big is the market of private lenders and its impact on this study. Due to the limitation of data, those parts were not included in this research.

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