

Market and Catchment Area Research Report  
for  
Riverside, California



Prepared by:  
Shane Clement  
UCLA GEOG 181B



Clement Geospatial

## Introduction

The city of Riverside is in Riverside County, California and is approximately 50 miles southeast of Downtown Los Angeles. Starbucks Corporation has 19 store locations in the city with a potential to serve the 331,000 residents. The median age is 31.4 years, and the median household income in 2019 was \$69,045. About 23% of residents have at least a bachelor's degree and 80% have at least a high school diploma. Prior to March 2020, the unemployment rate in the county was 4.0% but has since climbed to 7.0%. The high unemployment rate and demographics are significant factors when closing a Starbucks store in Riverside. This analysis examines location, population, and demographics to recommend the closure of the most under-resourced Starbucks store.

## Method

The data used for this report was collected from the UCLA GEOG 181B course website and consists of a shapefile of Starbucks locations in Riverside and a geodatabase from the American Communities Survey 2014 Block Group data (ACS). Additionally, the map data was retrieved from OpenStreetMap.

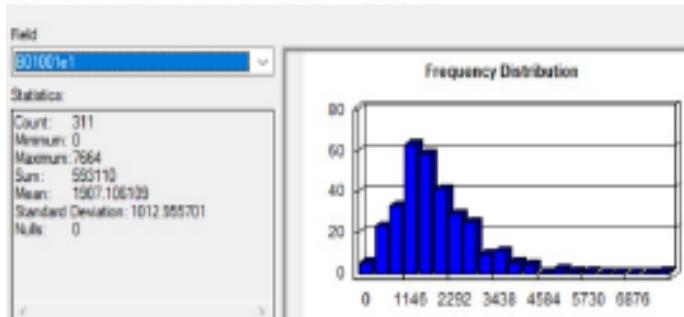
The ArcGIS tools used to model the service/catchment areas and obtain the demographics were OSM toolbox, network analysis, and geoprocessing. Network analysis was used to create the service area, route, and origin-destination cost matrix layers (O/D). The impedance of a three-minute drivetime was applied to the service and route layers. Intersect and dissolve geoprocessing capture the entire three-minute drivetime service area, as well as demonstrate the overlapping areas. The map results and the correlated demographics provide insight to the service area populations and median household income. The O/D cost matrix shows the drivetime from the store recommended for closure to all the other Starbucks location.

## Results

The results from the ACS data show that the city of Riverside had an estimated total population (B01001e1) of 593,100 in 2014. The population of the Starbucks service area was 436,939 with approximately 74% of the population living within a three-minute drive of a store.

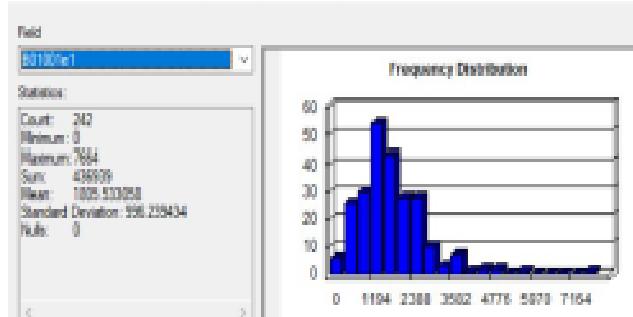
Population of Riverside, CA

Statistics of ACS\_2014\_5YR\_BG\_06\_CALIFORNIA\_X01\_AGE\_AND\_SEX



Population of Starbucks Service Areas in Riverside

Selection Statistics of ACS\_2014\_5YR\_BG\_06\_CALIFORNIA\_X01\_AGE\_AND\_SEX



The service area map shows that sixteen of the nineteen stores are located within a three-minute drivetime of one or more stores. Three of the stores #2659, #6616, and #5685, are in isolated service areas and have limited ability to share customers with another store. These stores also have the lowest service area populations.

## Starbucks Service Area Populations in Riverside, CA

Name	Population (Sum_B01001e1)
STARBUCKS #11025 : 0 - 3	84174
STARBUCKS #2892 : 0 - 3	78819
STARBUCKS #10666 : 0 - 3	78485
STARBUCKS #5370 : 0 - 3	74885
STARBUCKS ARLINGTON & 91 #6977 : 0 - 3	74841
STARBUCKS #7974 : 0 - 3	72386
STARBUCKS #10889 : 0 - 3	70458
STARBUCKS COFFEE #11236 : 0 - 3	69539
TARGET ARLINGTON T-0291 STARBUCKS : 0 - 3	66271
STARBUCKS COFFEE #10224 : 0 - 3	62666
STARBUCKS #5369 : 0 - 3	61732
ALBERTSONS #6614 STARBUCKS : 0 - 3	49418
STARBUCKS #9628 : 0 - 3	47097
STARBUCKS COFFEE #17691 : 0 - 3	45290
STARBUCKS #6864 : 0 - 3	42657
STARBUCKS #11463 : 0 - 3	29577
STARBUCKS #5685 : 0 - 3	28768
STARBUCKS #6616 : 0 - 3	27706
VONS #2059 - STARBUCKS : 0 - 3	16896

Sum of Population in Service Area: 1081805 Data Source: 2014 TIGER/Line; UCLA GEOG 181B Course Website  
Sum\_B01001e1

Before concluding that the lowest population stores should be recommended for closer, median household income (income) was also considered in this analysis. The median household income (B19013e1) in the entire Starbucks service area is \$65,344. Stores #5369, #5370, and #10666 have the three lowest incomes and are located within areas that serve one or more stores. Store #5369 has a moderate service population of 61,732 but the neighboring store, #11025, has the largest service population of all 19 locations. Stores #5370 and #10666 are located close to each other. With the low household income and proximity to each other, closing one of these stores was considered. The demographic living within proximity to the stores is likely influencing the low income. These stores are located near the University of California, Riverside with a student population of 26,434. These stores have the third and fourth highest service area populations.

## Starbucks Service Area Median Household Income in Riverside, CA

Name	Median Income \$ (Avg_B19013e1)
STARBUCKS COFFEE #17691 : 0 - 3	106999
STARBUCKS #11483 : 0 - 3	104672
ALBERTSONS #6514 STARBUCKS : 0 - 3	103361
STARBUCKS #6804 : 0 - 3	94604
TARGET ARLINGTON T-0291 STARBUCKS : 0 - 3	65211
STARBUCKS ARLINGTON & 91 #6977 : 0 - 3	61941
STARBUCKS #9628 : 0 - 3	61574
STARBUCKS #5685 : 0 - 3	61408
STARBUCKS COFFEE #10224 : 0 - 3	60828
STARBUCKS #7974 : 0 - 3	60781
STARBUCKS #2892 : 0 - 3	60742
STARBUCKS #6616 : 0 - 3	58183
STARBUCKS COFFEE #11236 : 0 - 3	56884
STARBUCKS #11025 : 0 - 3	49580
STARBUCKS #10889 : 0 - 3	49046
VONS #2659 - STARBUCKS : 0 - 3	47628
STARBUCKS #5869 : 0 - 3	47344
STARBUCKS #5370 : 0 - 3	46684
STARBUCKS #10866 : 0 - 3	45373

Total Service Area Median Household Income \$65,334

Avg\_B19013e1

Data Source: 2014 ACS Block Group, UCLA GEOG 181B Course Website

## Conclusion

Location, population, and median household income are the variables used to determine the Starbucks store recommended for closure. Store #2659 has the lowest service area population of 16,836 and the fourth lowest median household income of \$47,628. It is in a Vons grocery store that has limited foot traffic and inconvenient accessibility for potential customers. The results from the O/D cost matrix show that the nearest location is an estimated eight-minute drivetime. More information is needed to determine if a store in another service area could easily absorb the customers from store #2659. Other factors to consider in closing a store are monthly store sales, advertising, labor costs, and overhead expenses. The data in this analysis suggests that store #2659 is the most under-resourced and is recommended for closure.

## Sources:

[Riverside, California \(CA\) income map, earnings map, and wages data \(city-data.com\)](http://city-data.com)

[U.S. Census Bureau QuickFacts: Riverside County, California](http://www.census.gov)

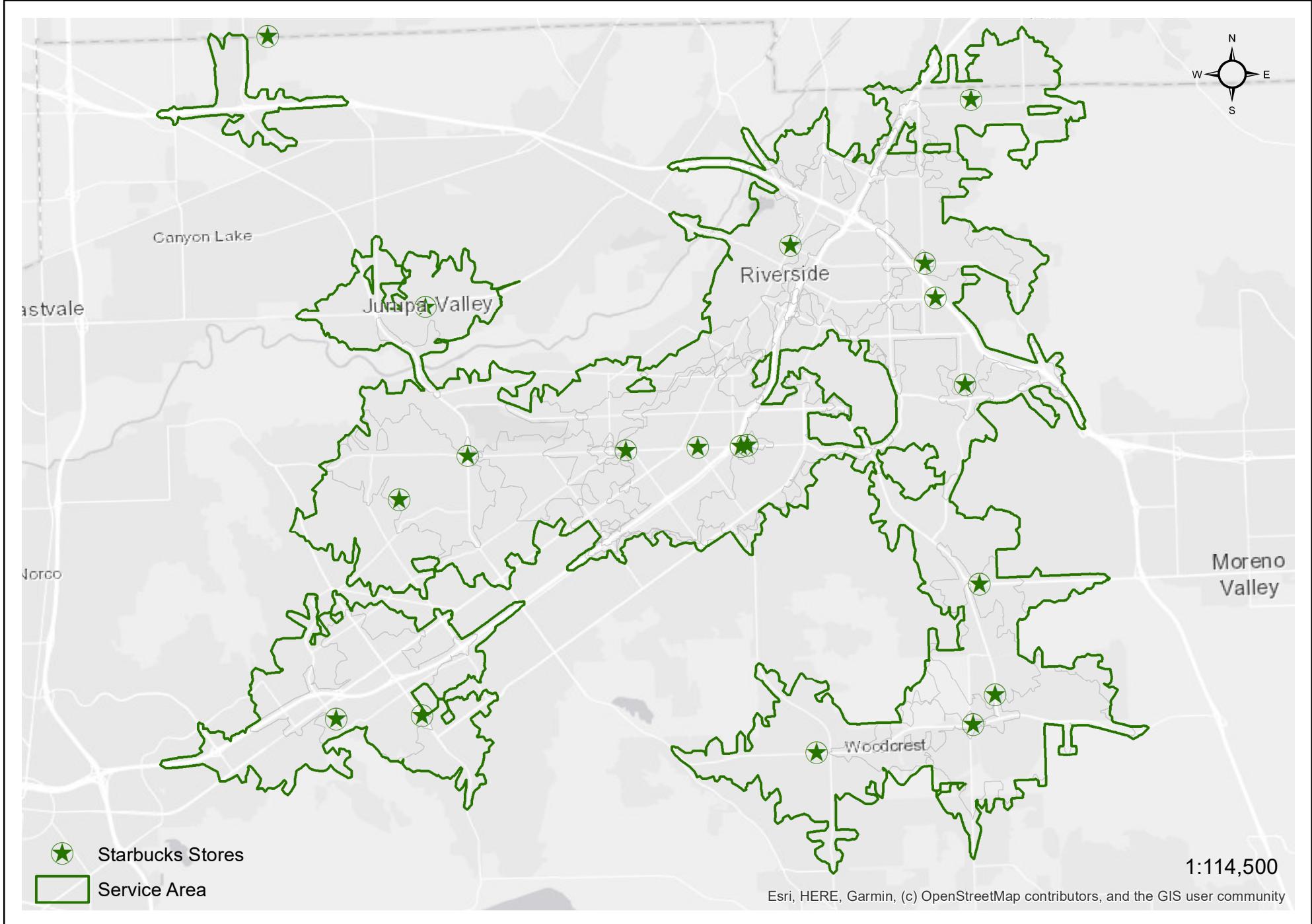
[U.S. Census Bureau QuickFacts: Riverside city, California](http://www.census.gov)

[Unemployment Rate in Riverside County, CA \(CARIVE5URN\) | FRED | St. Louis Fed \(stlouisfed.org\)](http://research.stlouisfed.org)

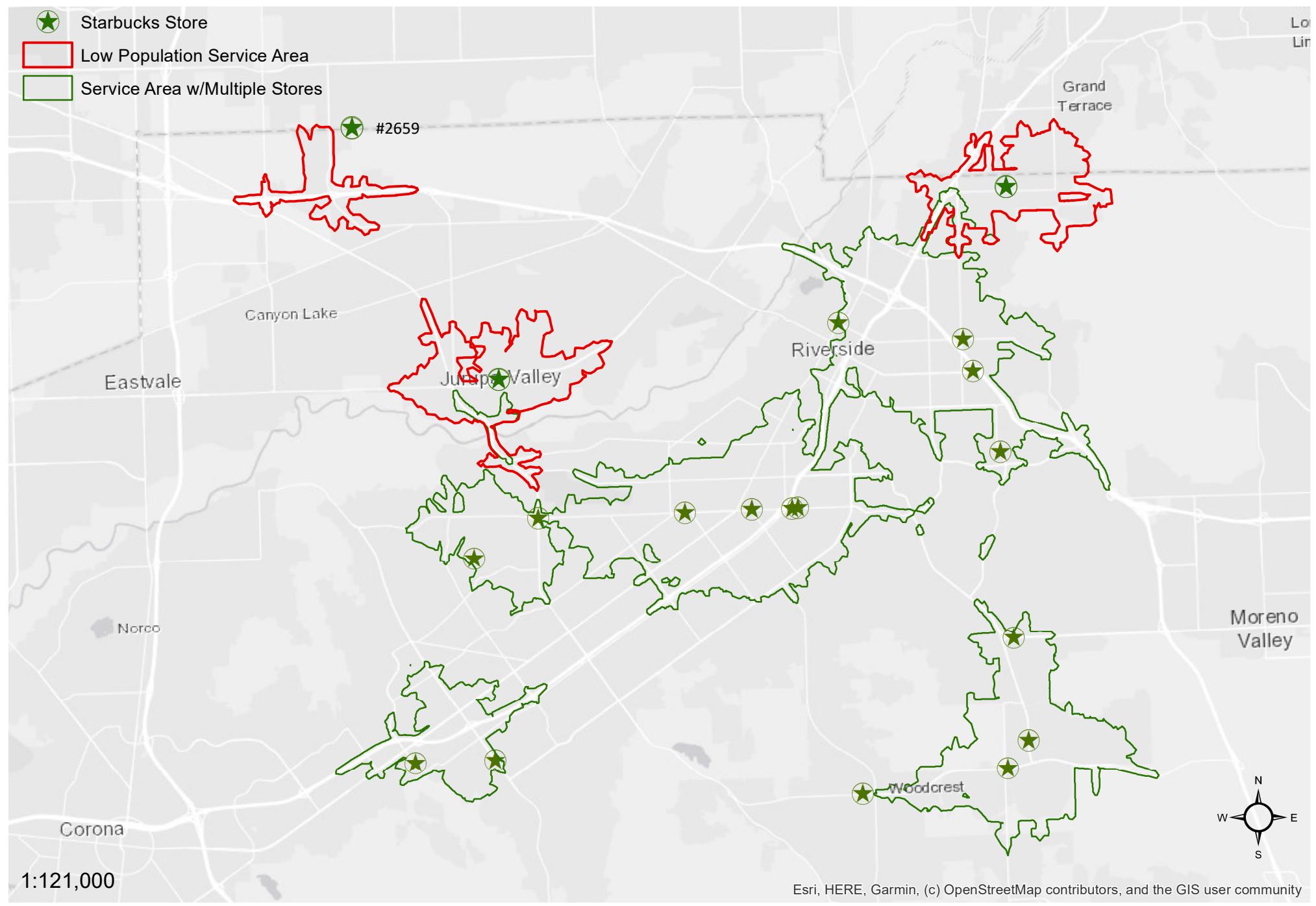
[Rankings and Facts | University of California, Riverside \(ucr.edu\)](http://www.ucs.edu)

[Riverside, California - Wikipedia](http://en.wikipedia.org)

# Starbucks Service Areas in Riverside, CA (Within 3 Drive Time)



# Starbucks 3 Lowest Population Service Areas in Riverside, CA



# O/D Cost Matrix - Starbucks Store #2659

## Travel Time in Minutes

