

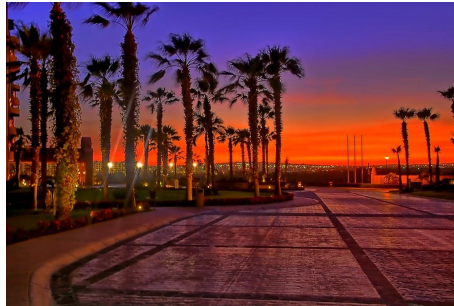
WHY MOVE TO CALIFORNIA?



Project 1 for Group 4



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What is California?

California is a state in the Western United States, located along the Pacific Coast. With nearly 39.2 million residents across a total area of approximately 163,696 square miles (423,970 km²), it is the most populous U.S. state and the 3rd largest by area. It is also the most populated subnational entity in North America and the 34th most populous in the world. Prior to European colonization, California was one of the most culturally and linguistically diverse areas in pre-Columbian North America and contained the highest Native American population density north of what is now Mexico. Notable contributions to popular culture, for example in entertainment and sports, have their origins in California. The state also has made noteworthy contributions in the fields of communication, information, innovation, environmentalism, economics, and politics.



Goal

The aim of our project is to uncover various factors to consider when moving to California. We'll examine best choice for living based on factors and their relationships between different California regions. What are some of these factors?

Population: a complete set group of individuals, whether that group comprises a nation or a group of people with a common characteristic

Housing: dwellings provided for people. These might be owner-occupied, or rented out to families or individuals

Employment: the total number of people gainfully employed or working

Range of Analysis

What are the regions we are observing?

State of California

Number of Counties

- 58 counties

Regions

- Nine regions
- Coastal/Inland
- Northern/Central/Southern

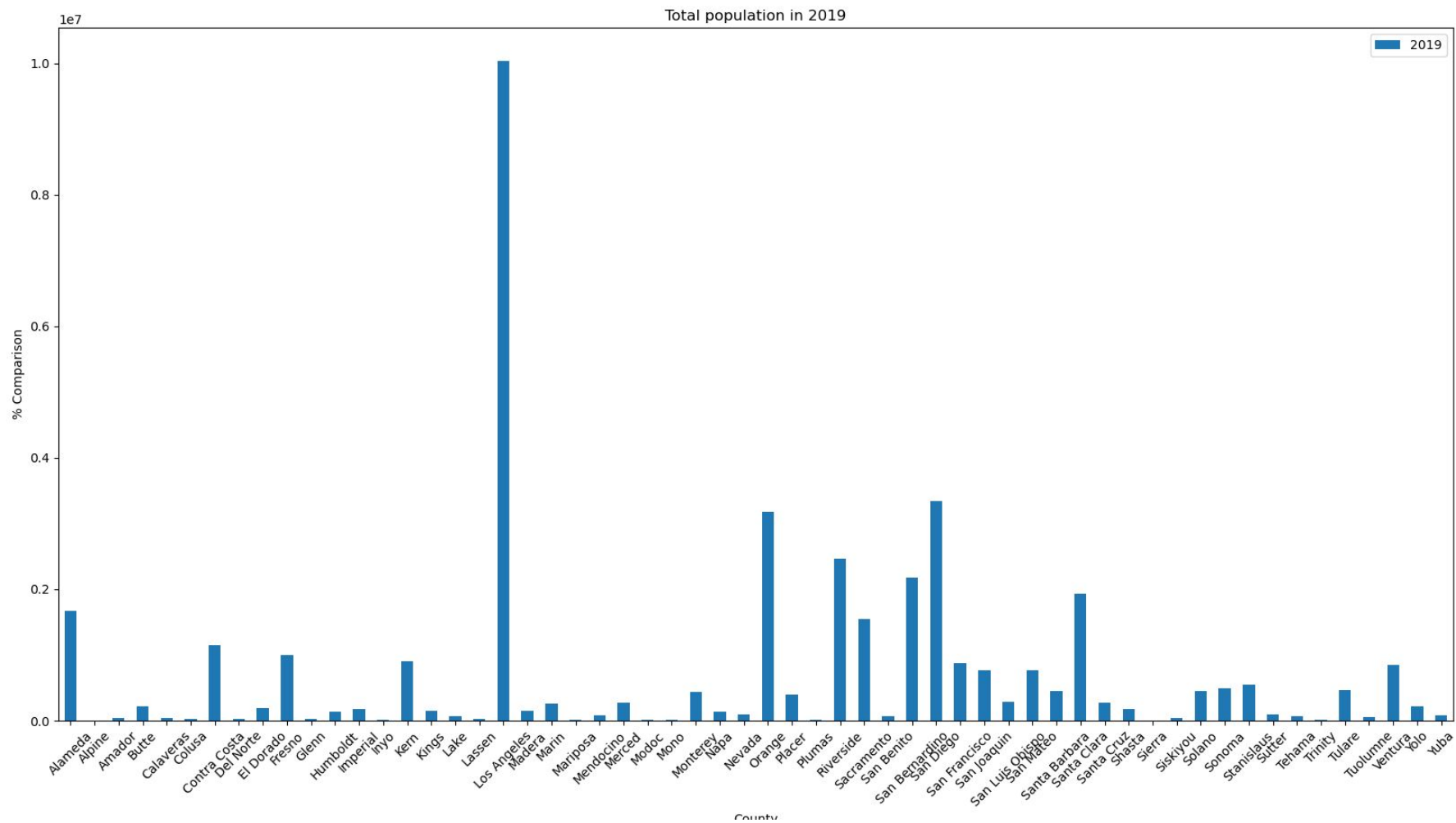
Where was the data gathered?

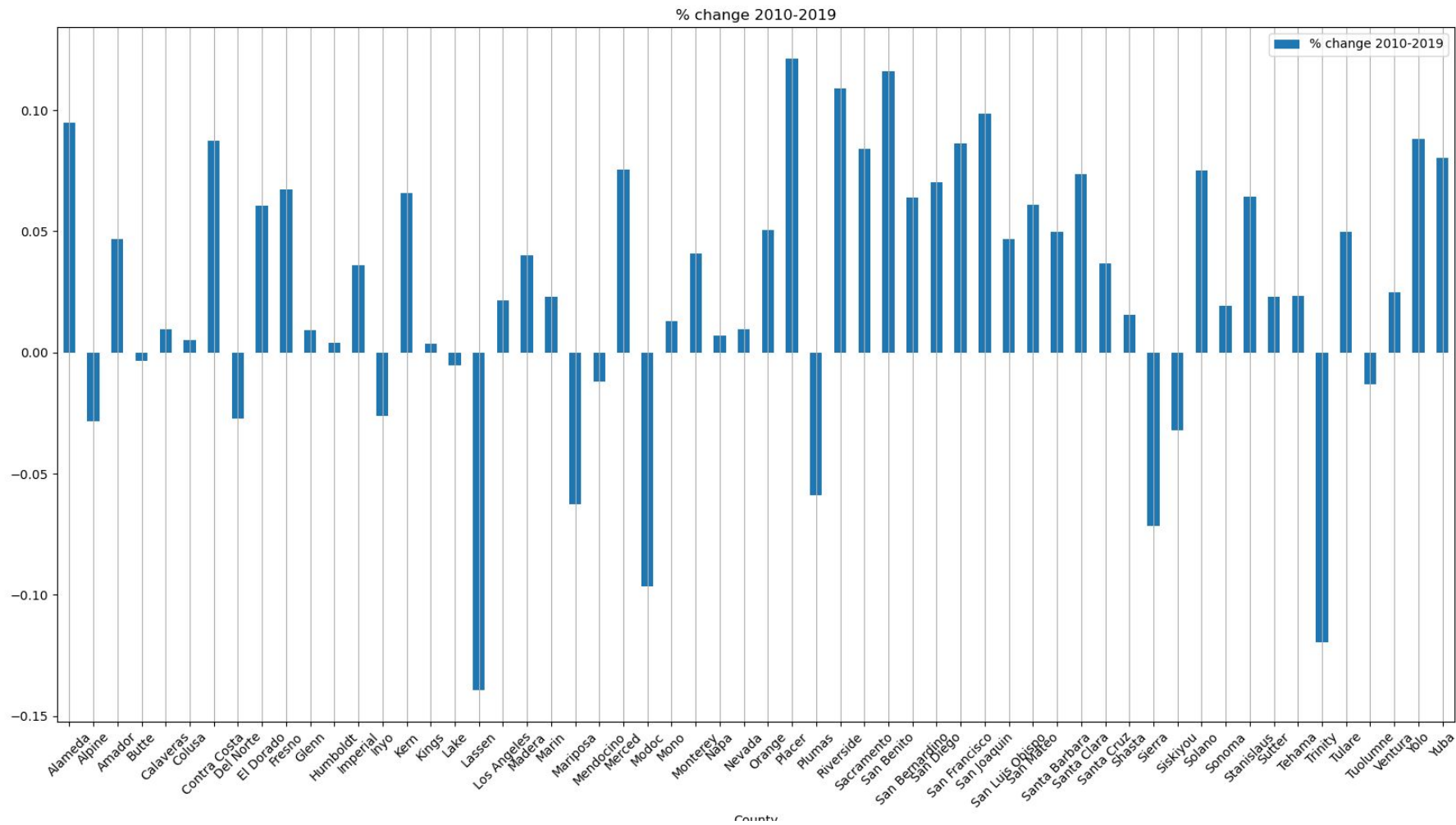
- *US Census*
- *Zillow, Median Residential Rents, 2015 to 2022*
- *California Association of Realtors, 2010 to 2022*

Population

- How dense is the population per county in California?
- Where do we see population growth in California?
- What are the differences in population between coastal and inland counties?



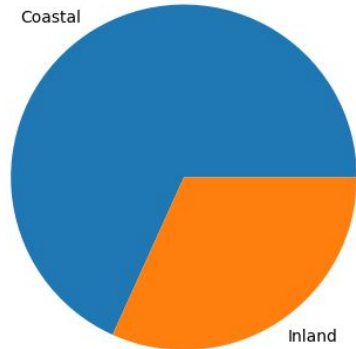




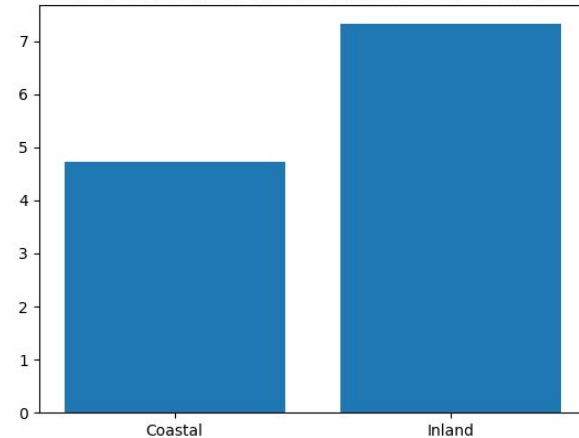
Coastal vs Inland comparison

- We can conclude from our charts that the coastal counties are more densely populated than their inland counterparts.
- Although we see a growth in population within each category, we see a higher % change in the inland counties.

Coastal vs Inland population in 2019



Coastal vs Inland population change (2010 to 2019) in %

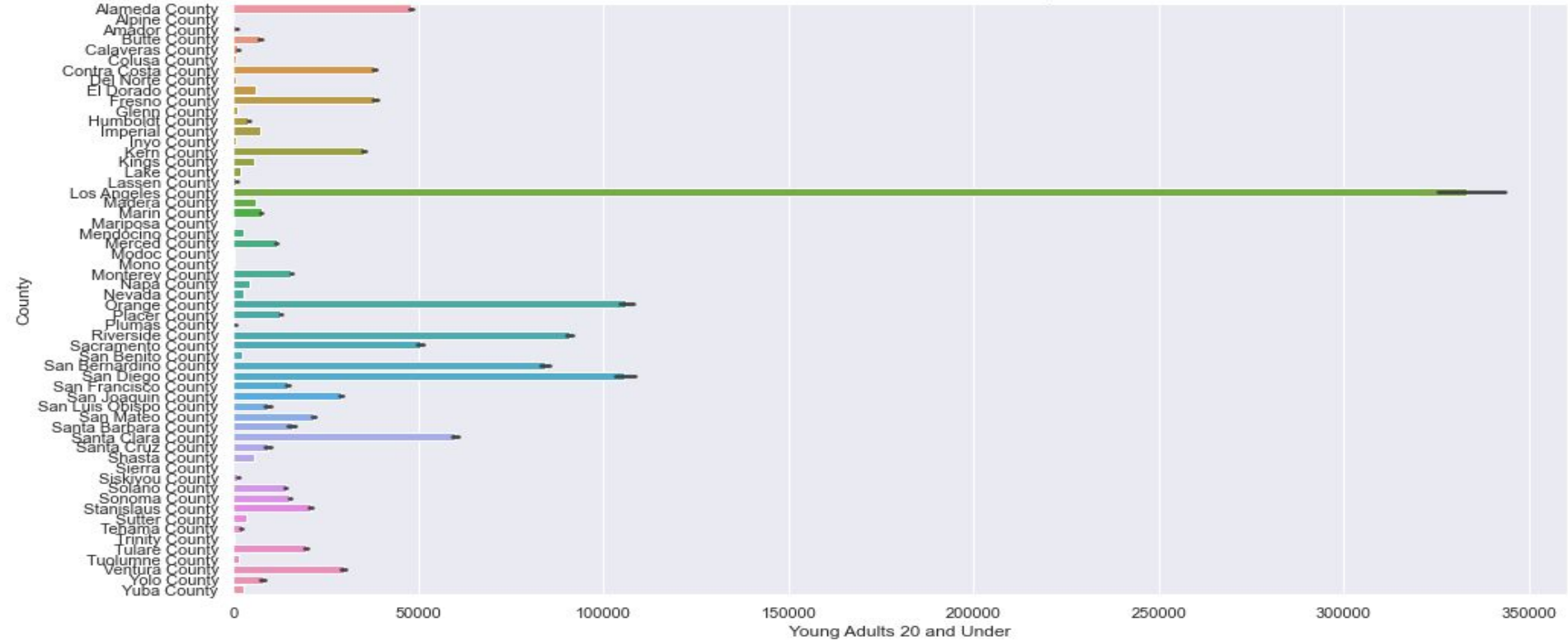


Demographics

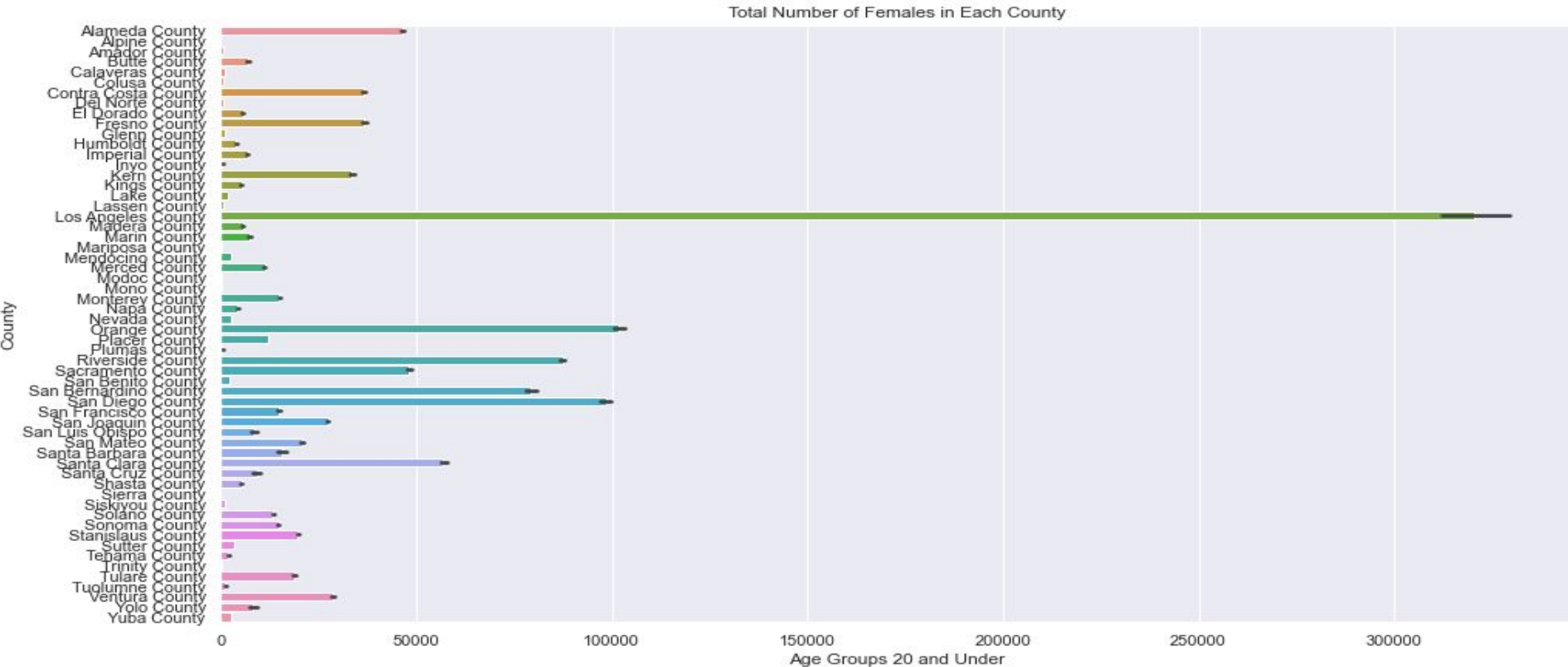
- How has the age group changed for male and females population per county in California?
- How has the distribution of adults over the age of 20 changed in California ?

Male Youth 20 and Under: 2010 - 2019

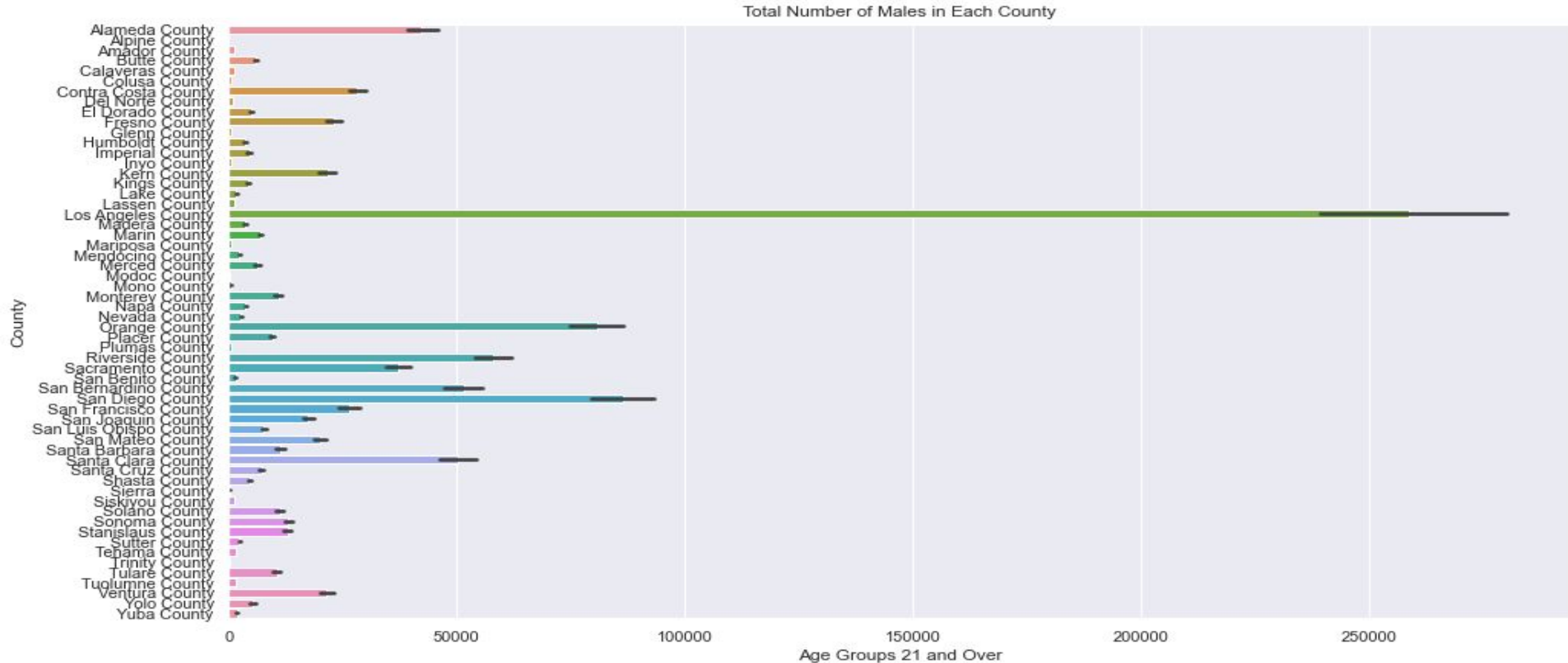
Total Number of Males in Each County



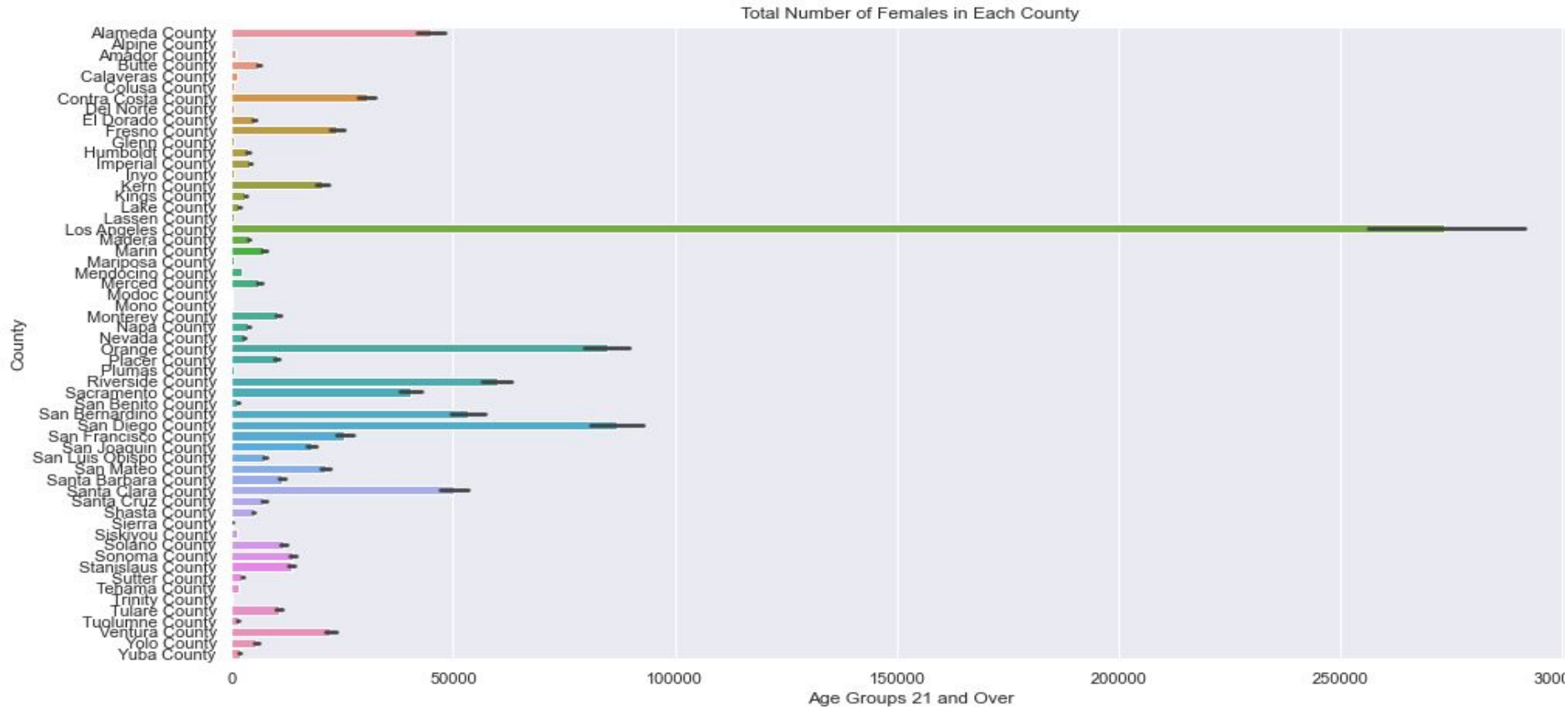
Female Youth 20 and Under: 2010 - 2019



Male Adults 21 and Over: 2010 - 2019

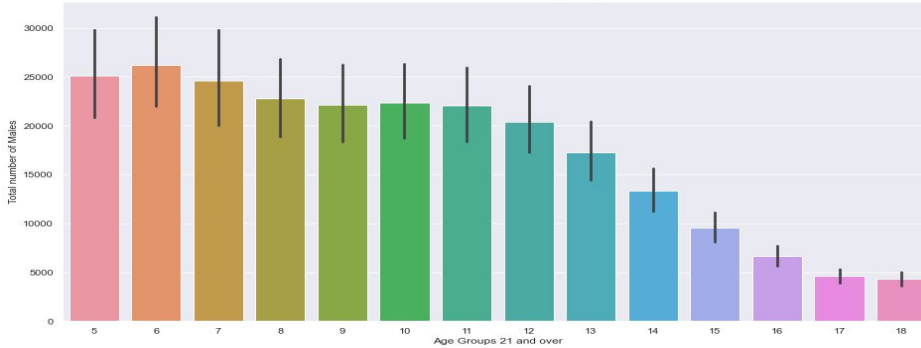


Female Adults 21 and Over: 2010 - 2019



Adult Age Groups as a State: 2010 - 2019

Total Number of Males in Each Age Group



5 = Age 21 to 24 years

6 = Age 25 to 29 years

7 = Age 30 to 34 years

8 = Age 35 to 39 years

9 = Age 40 to 44 years

10 = Age 45 to 49 years

11 = Age 50 to 54 years

12 = Age 55 to 59 years

13 = Age 60 to 64 years

14 = Age 65 to 69 years

15 = Age 70 to 74 years

16 = Age 75 to 79 years

17 = Age 80 to 84 years

18 = Age 85 years or older

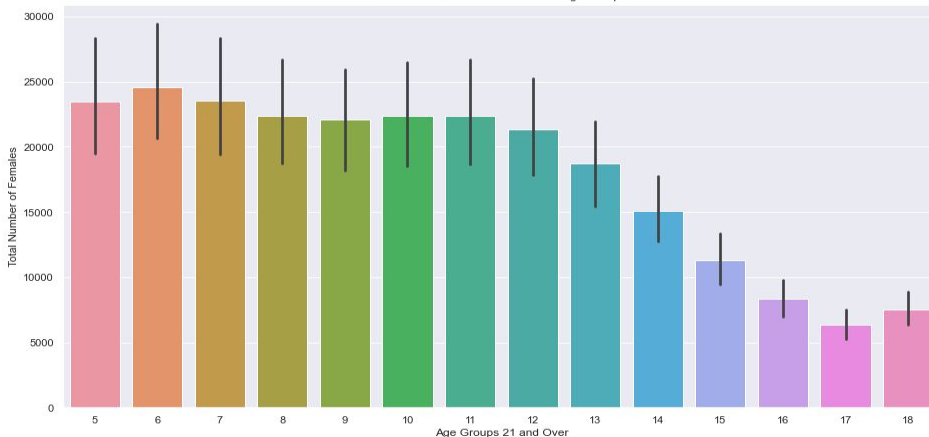
Looking into the population of California for the ages 21 and over.

Retains a higher adult male population from the ages of 21 to 49.

There is a decline in the amount of males present during the later years of 50 and older.

Stronger variation in female population from ages 50 or older.

Total Number of Females in Each Age Group



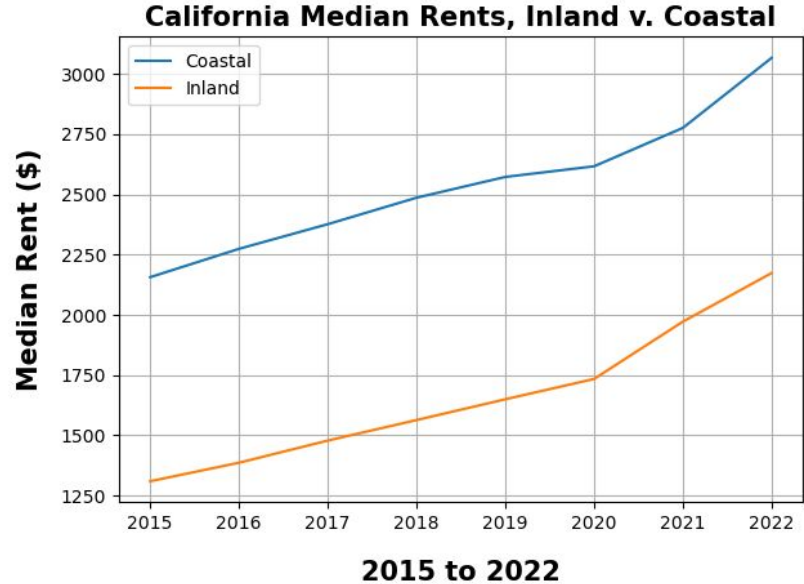
Housing in California



Cost of Rental Housing in California

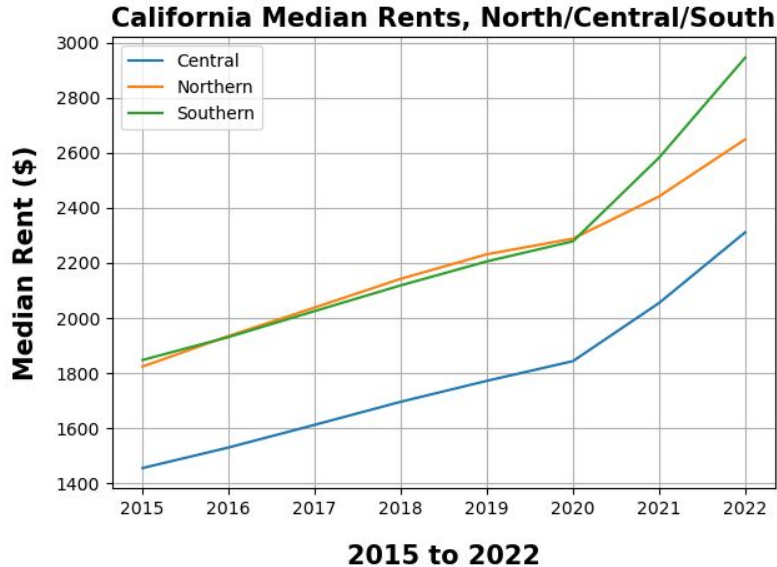
Cost of residential rentals climbed steadily throughout California from 2015 to 2022, and accelerated in 2020.

- Median rents in coastal counties increased at roughly the same rate as inland counties.
- Yet, inland counties are still far more affordable than living along the coast



Source: Zillow

Regional Difference in California Median Rents



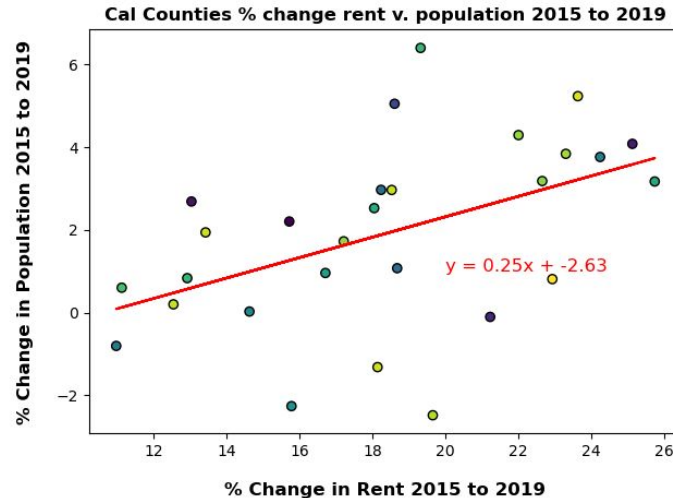
All regions increased at roughly the same pace from 2015 to 2020, but once again accelerated from 2020 to 2022.

- Median rents are far more affordable in the central part of the state, almost 15% less than Northern Cal and 22% less than Southern Cal.
- Southern California median rents skyrocketed after 2020 compared to the other regions.

Source: Zillow

Correlation Between Change in Rents vs. Population

Rents in California counties increased from 2015 to 2019 anywhere from 11% to 26%. Population only increased by 6% in the fastest growing counties, and actually dropped by over 2% in two counties. Was there a relationship? With an r-value of only 0.48, it appears not.



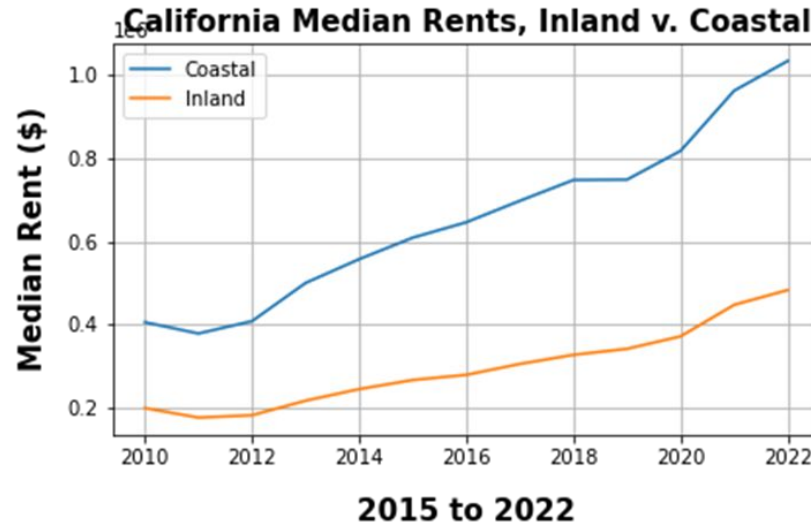
Source: Zillow and US Census

Cost of Purchasing a Home in California

Cost of residential homes climbed steadily throughout California from 2010 to 2019, and accelerated in 2020, reaching an increase of 5.7% in 2022.

- Median Prices for homes in coastal counties increased at higher rate than the inland counties.
- Although there was an increase, based on the data gathered and observed, when moving to California, if choosing to purchase a home instead of renting, most are purchasing in the coastal counties.

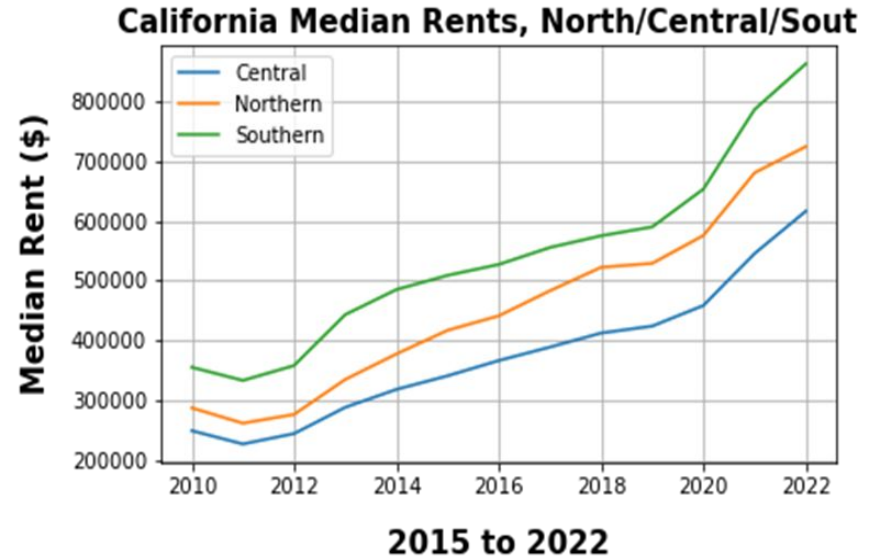
Source: California Association of Realtors



Regional Difference in California Median Pricing for Homes

All regions increased at roughly the same pace from 2010 to 2020, but once again accelerated from 2020 to 2022.

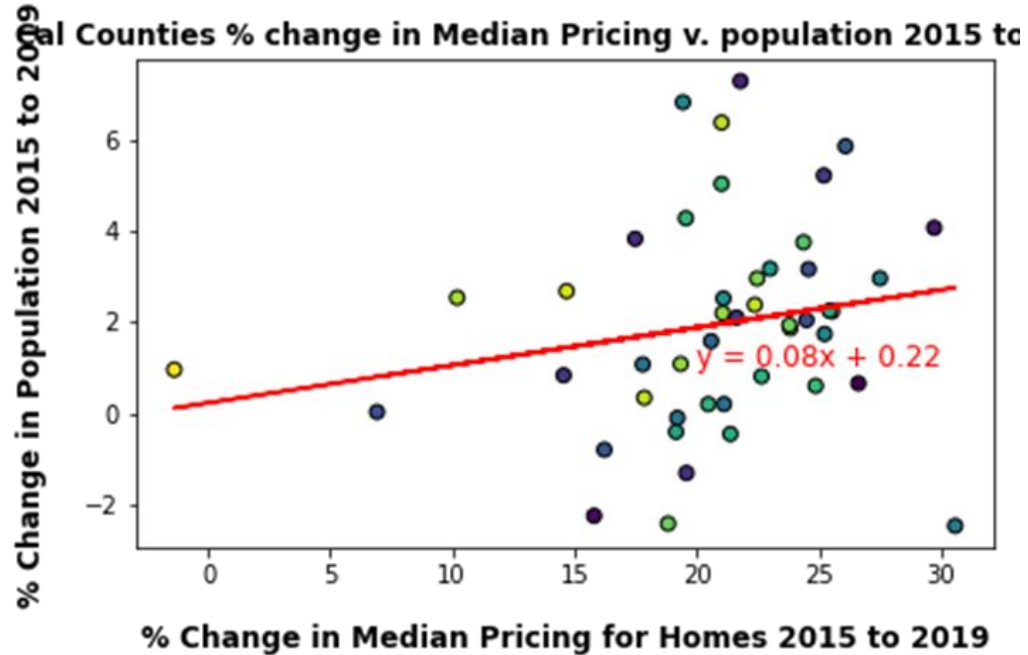
- Median pricing for homes is far more affordable in the central part of the state.
- Southern California median prices skyrocketed after 2020 compared to the other regions.



Correlation Between Change in Rents vs. Population

Housing Prices in California counties continue to increase due to increasing mortgage rates, however, home values continue declining, as affordability remains a concern. Population only increased by 6% in the fastest growing counties and dropped by over 2% in two counties. Was there a relationship? With an r-value of only 0.2, it appears not.

Source: California Association of Realtors and US Census





Employment

In California, where are the areas with the best job opportunities?

From million rows of datas *

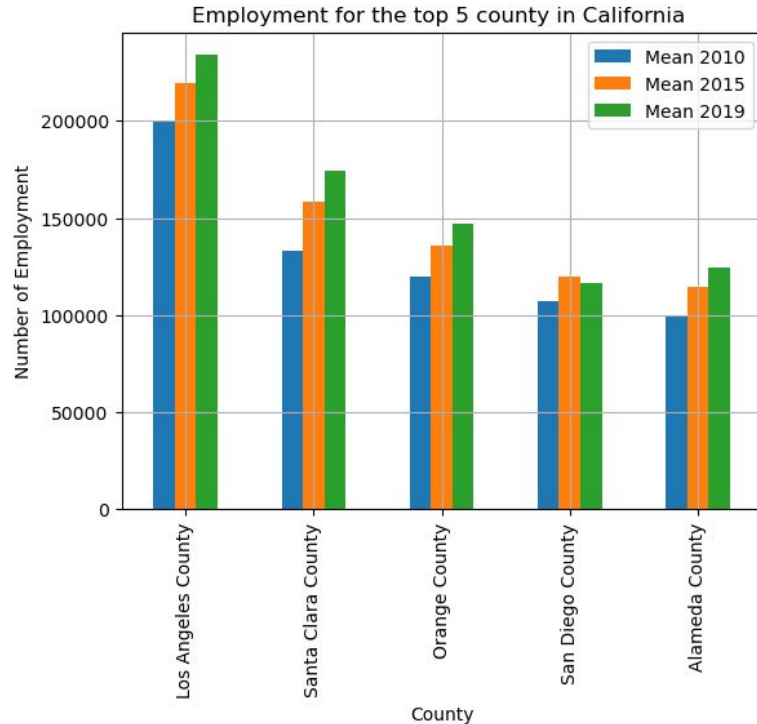
Area Name	Year	Date	Series Code	Industry Title	Current Employment
1589718 rows × 9 columns					

To clean and analyze its, we focus on 3 different years:

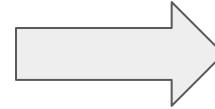
- 2010
- 2015
- 2019

*(source:<https://data.ca.gov/dataset/current-employment-statistics-ces/resource/3b22aa89-9745-43df-8661-f1a59746afb4>)

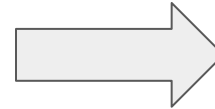
Prominent Employed Counties



LA county has the most employment for each respective year (2010,2015 and 2019)



Each county excluding San Diego County increased in employment over the years



Alameda County (5) was able to exceed San Diego County (4) in 2019

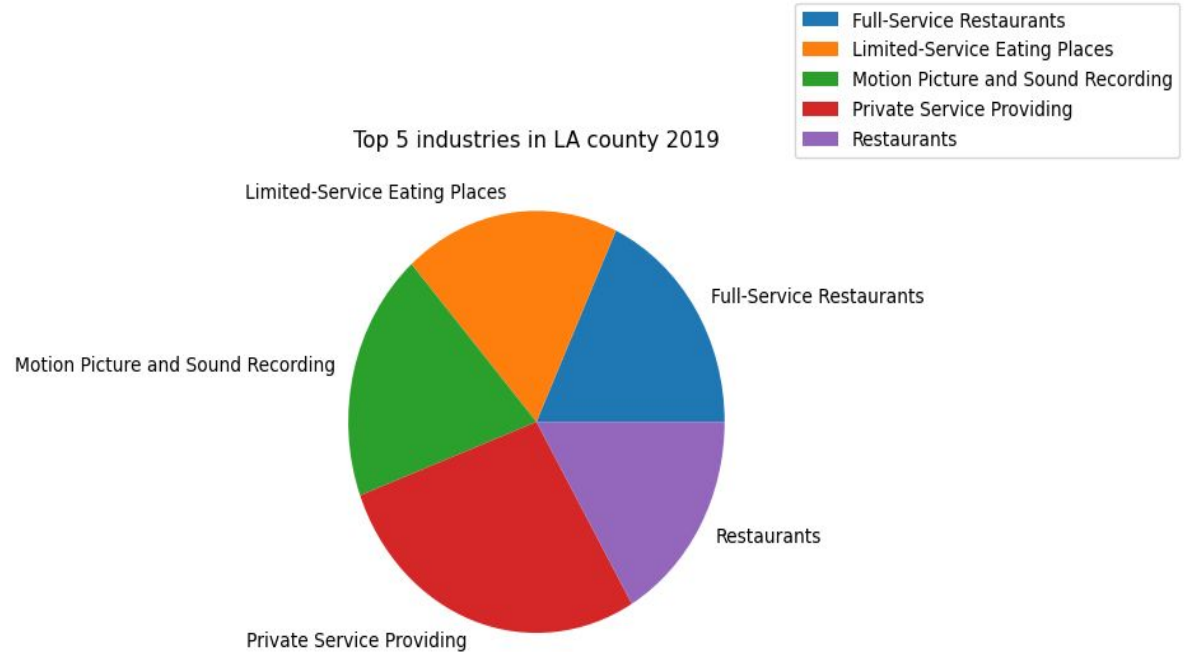
Next question: What type of employment can we find in those counties ?

Employment by Industry

Example: LA County 2019 (about 186 types of industries)

Prominent Industries based on number of Employment:

1. Private Service Providing
2. Motion Picture and Sound Recording(ex: Paramount Recording Studios)
3. Limited Service Eating Places
4. Full-service Restaurants (ex: Buffalo Wild Wings)
5. Restaurants



Employment by Industry Analysis

What does this say about Los Angeles County?

- Los Angeles has a reputation as a hotbed of creative development, producing a constant stream of innovative ideas and entrepreneurial opportunities.
- The top five industries of LA County have more employment than San Diego and Alameda County in 2019.
- There is a heavy concentration of employment relating to food services.



Conclusion

- When comparing the Coastal and Inland counties population growth, it can be concluded that Inland counties had a bigger growth than the Coastal counties.
- With the population steadily increasing, more variety in age groups begin to show. Densely populated counties have a higher number of young adults and there is a higher variation of men in the early and middle stages of adulthood with the over 50 being female.
- Housing prices continue to rise in California, but inland properties and those in the central part of the state remain affordable.
- Los Angeles stayed the most employed county through a ten year span from 2010 to 2019, having a heavy concentration of employment in food-service related industries

Notes

- During the data collection process, there were datasets with missing data values
- Because we had utilized different datasets, much cleaning had to be done