

# Covid Cases in Southern California Counties

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## Data

- The data was collected from the CDC database. Although having 30 variables and 16,048,575 cases collected from across America, this data set had many missing values; some variables more than others.
- In this exploration, we mainly investigated the data pertaining to the ten counties of Southern California: Imperial, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo (SLO), Santa Barbara, and Ventura.

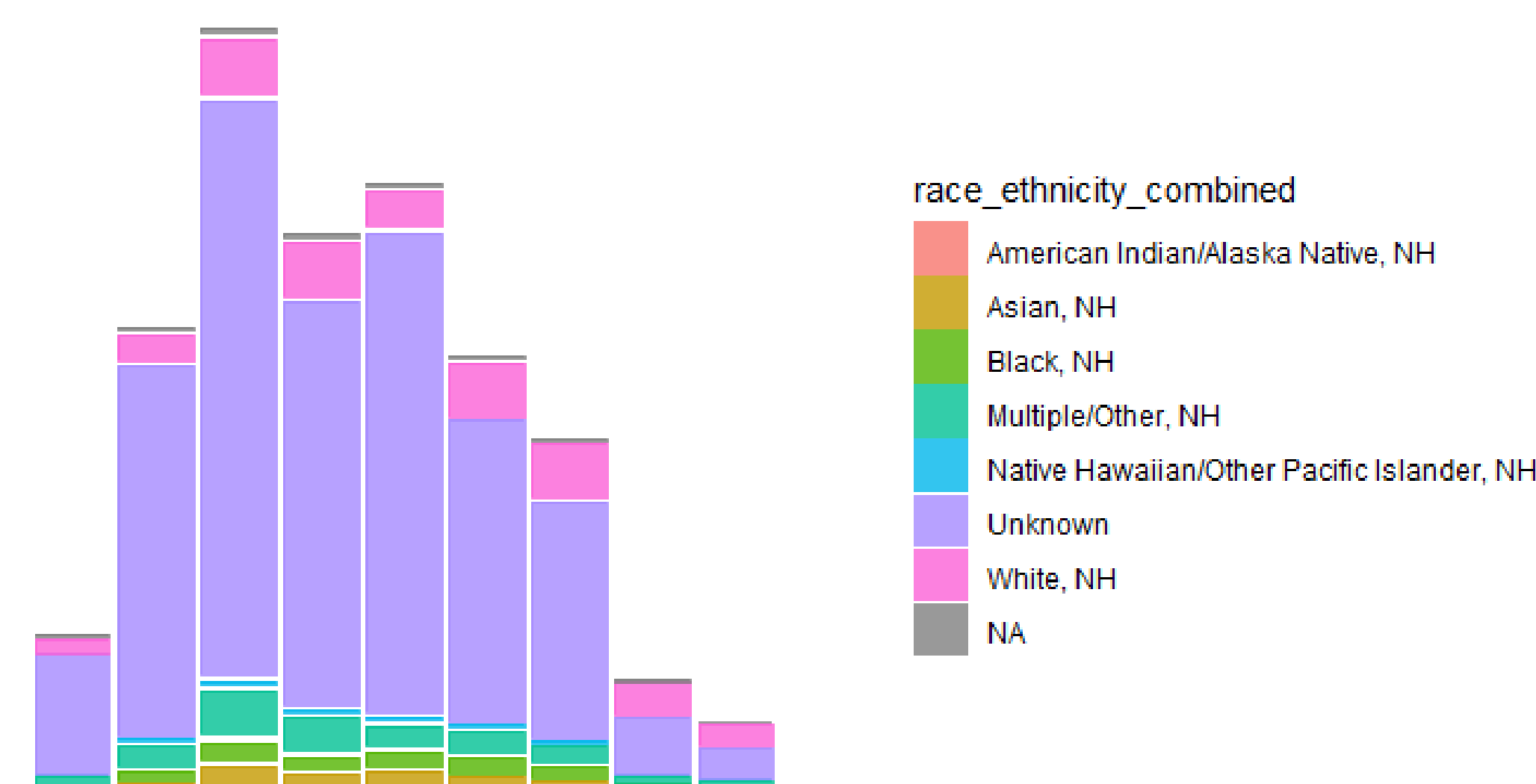
## Objectives & Methods

- Our main interest was to build an understanding of this data
- To, quite literally, form a picture of this data, we relied on different visualizations.

## Exploration

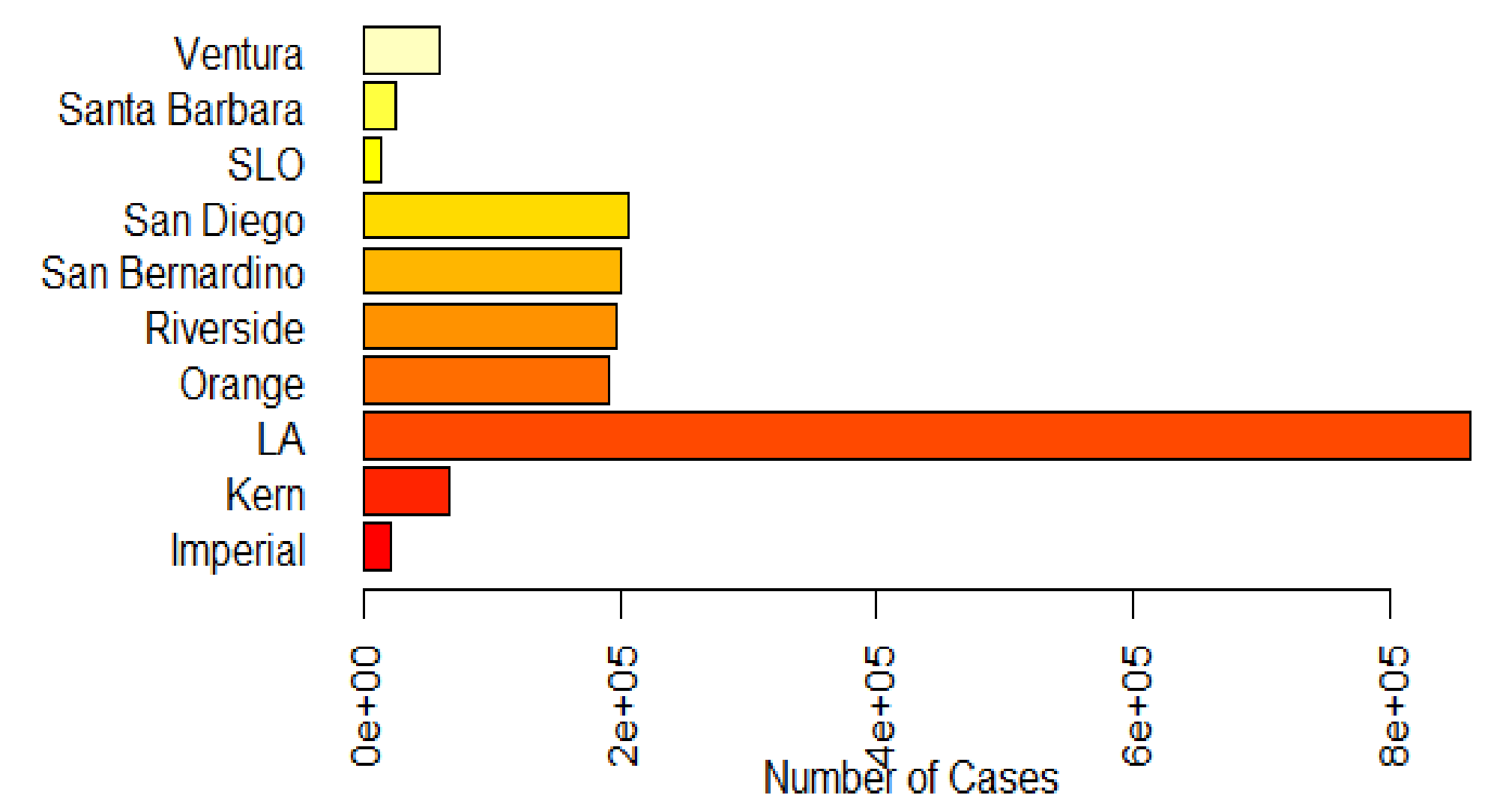
- Looking into Ethnicity and Race combo by age groups, most cases fall into the age groups 10-19, 20-29, 30-39, and 40-49.
- Notably absent from the Race and Ethnicity category is Hispanic/Latinx since this group makes up a majority of the Southern California population
- In each age group, the majority Race/Ethnicity is Unknown

Race and Ethnicity by Age Group

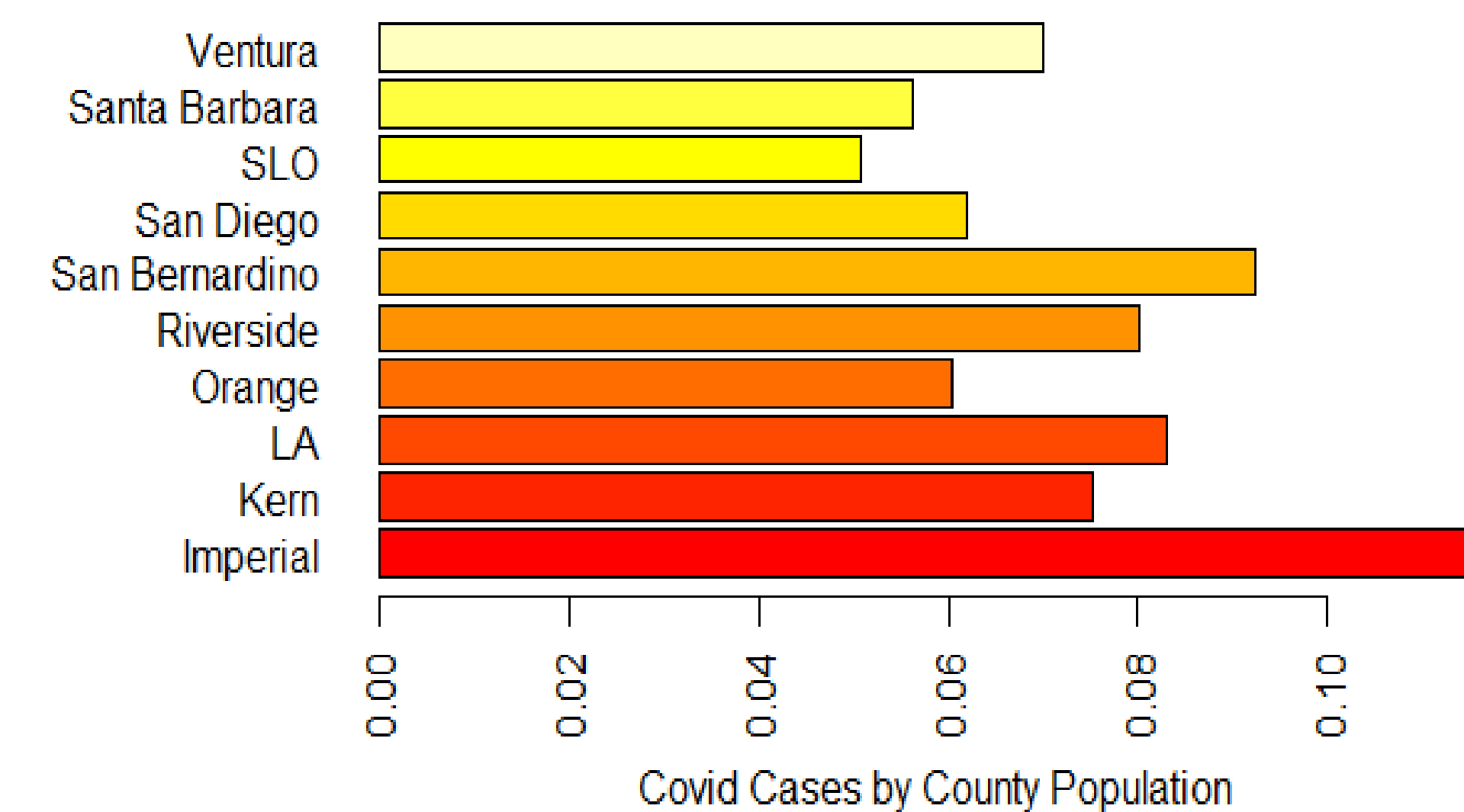


## Exploration (cont)

Covid Cases in SoCal Counties



Covid Cases in SoCal Counties



- The number of cases per county shows an overwhelming number of cases within Los Angeles county. The next leading number of cases are found in San Diego, San Bernardino, and Riverside county.
- Dividing the number of cases by the county population as reported in the 2019 census, Imperial county is identified as having the highest percentage of covid cases followed by San Bernardino, Los Angeles, and Riverside

## Exploration (cont)

- Now turning to the number of deaths that occurred per county, Imperial, San Bernardino and Orange county have the most cases of death.
- It seems Los Angeles and SLO are not on the scale for any of the plots. Could be a coding error.
- Comparing the number of deaths to county population size, Imperial is the only county that jumps to opposite ends of the spectrum.
- Considering the Unknown Race/Ethnicity was a majority in each age group, we were interested in seeing how these cases were split between counties. This map is like the overall county population map, meaning the most populated counties also hold the most amount of unknown ethnicity/race cases.

## References

Centers for Disease Control and Prevention, COVID-19 Response. COVID-19 Case Surveillance Restricted Data Access, Summary, and Limitations (dataset access date: April 30, 2021).

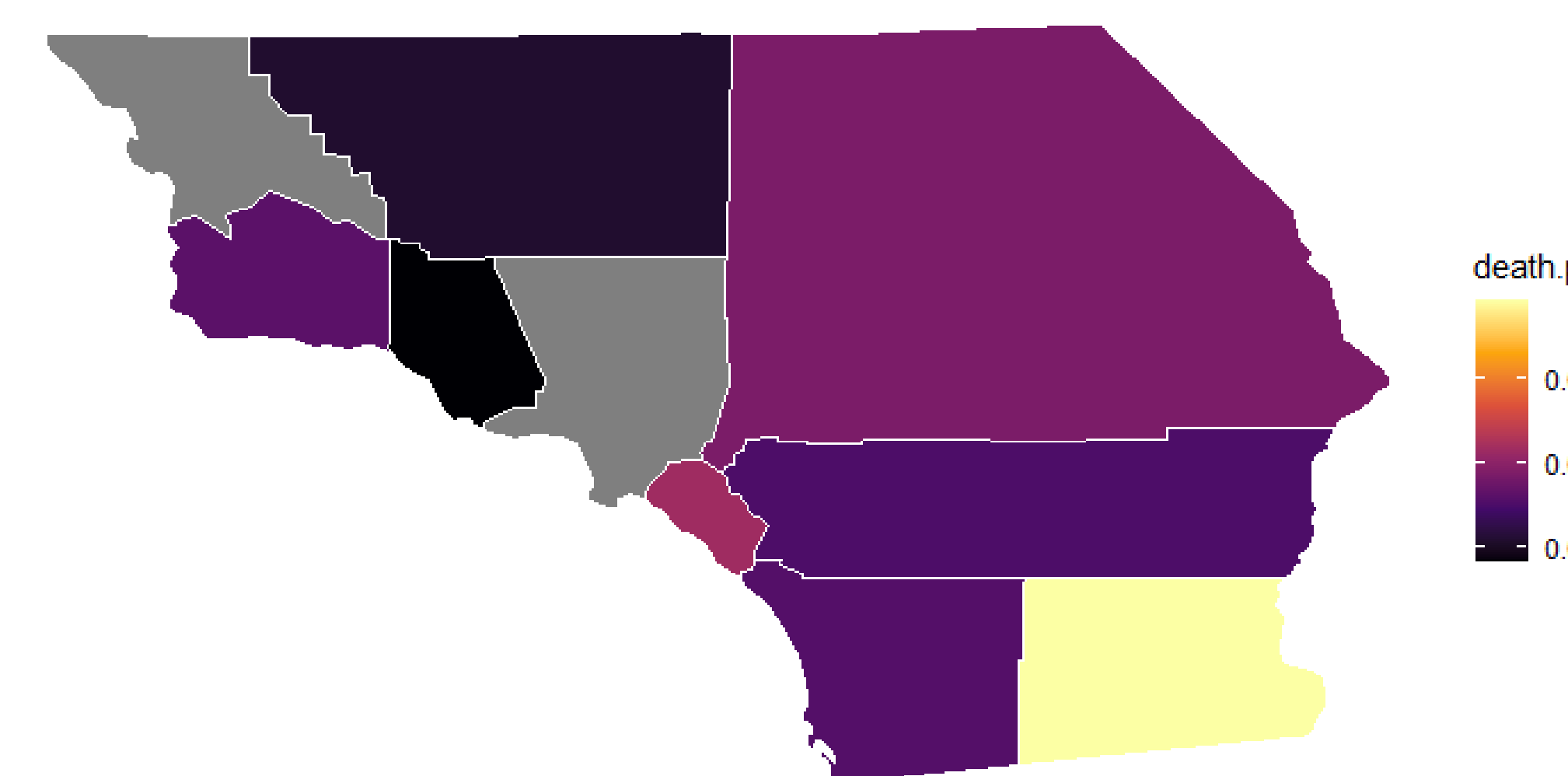
<https://www.datanovia.com/en/blog/how-to-create-a-map-using-ggplot2/#map-for-specific-regions>

United States Census Bureau (2019)

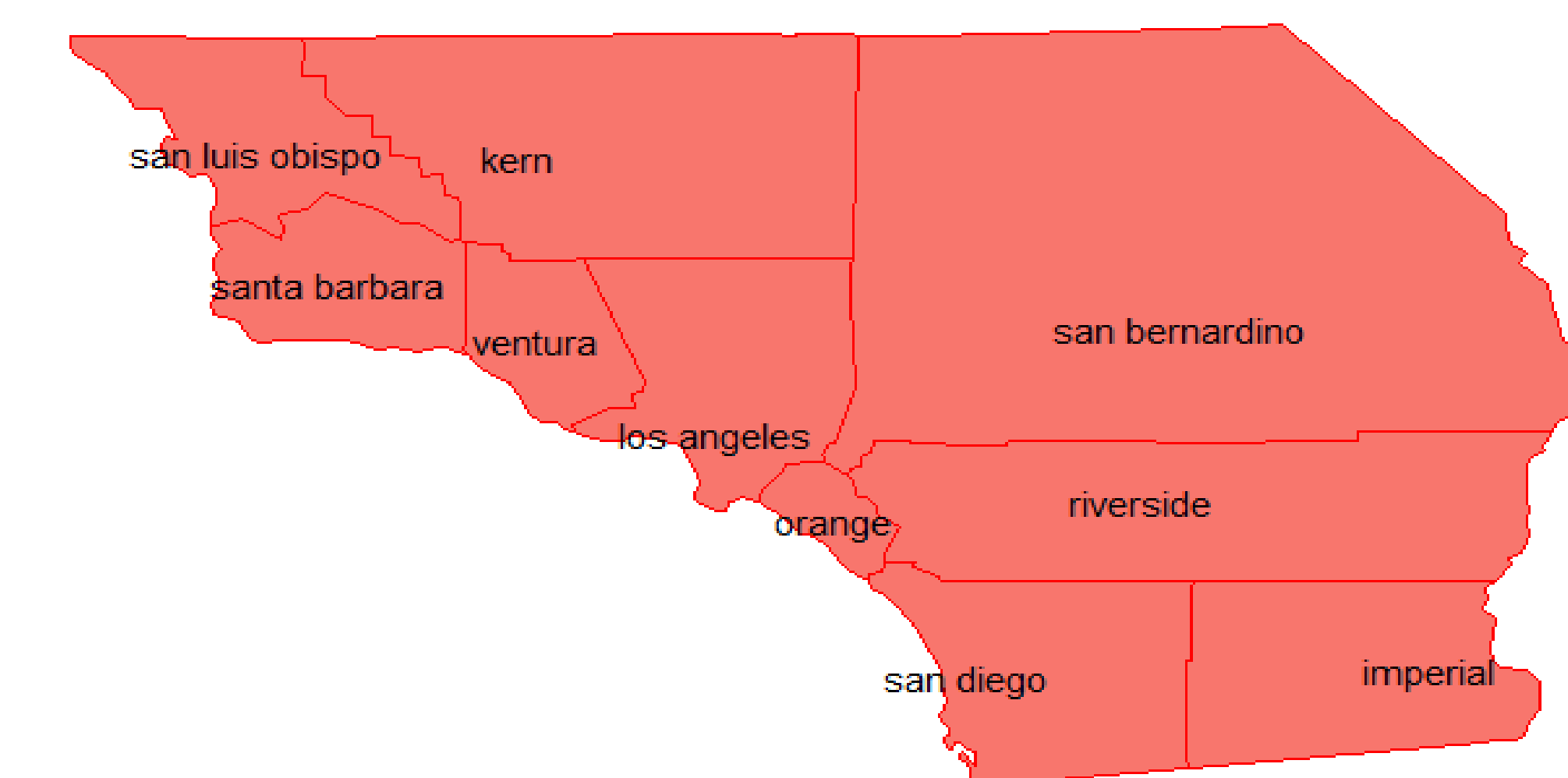
## Acknowledgements

- Department of Statistics, UC Davis
- Fushing Hsieh

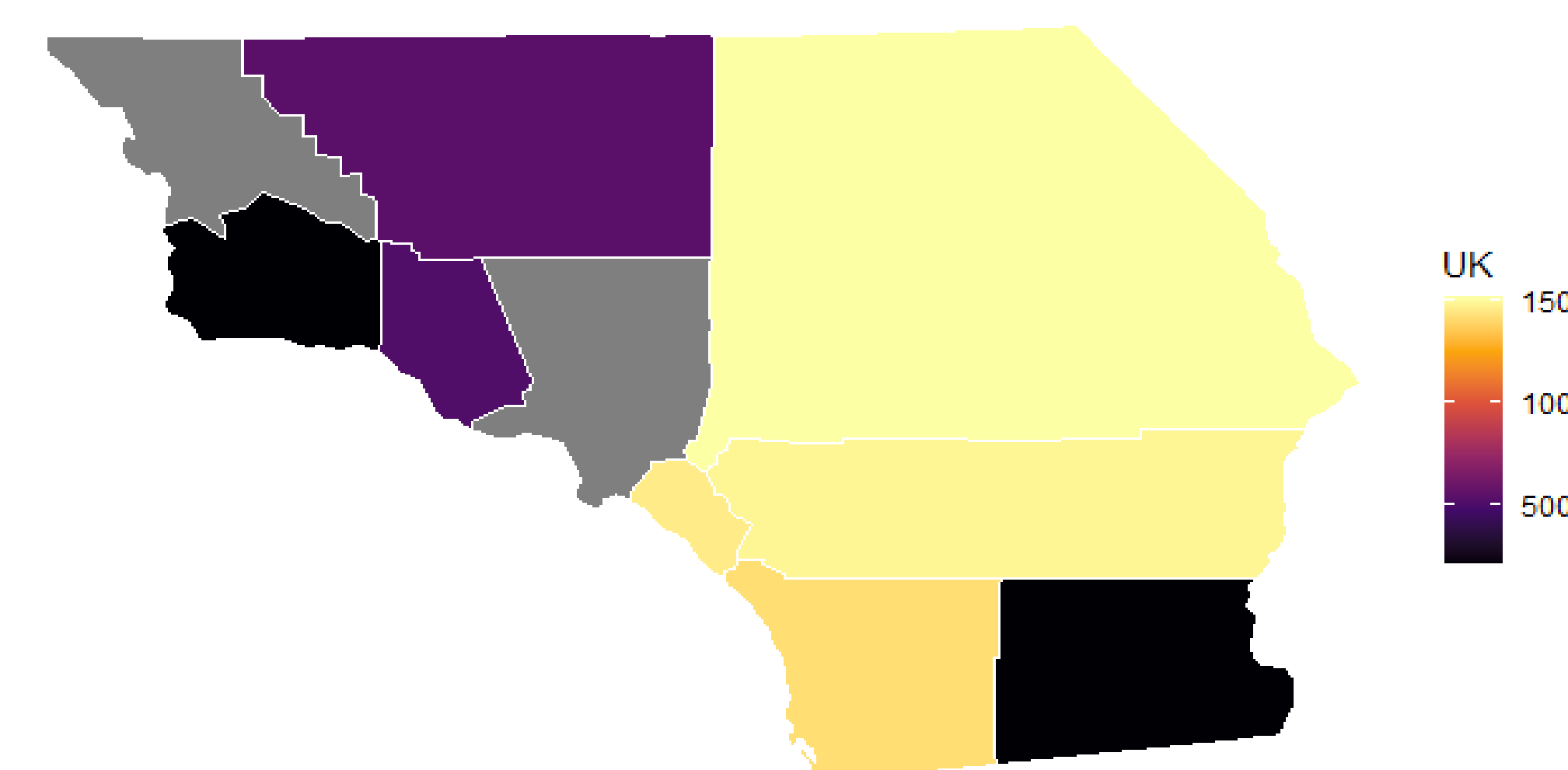
Number of Deaths from County Covid Cases



Southern California Counties



Covid Cases with Unknown Ethnicity/Race



County Populations

