

Traffic Collisions in Los Angeles 2010- Present

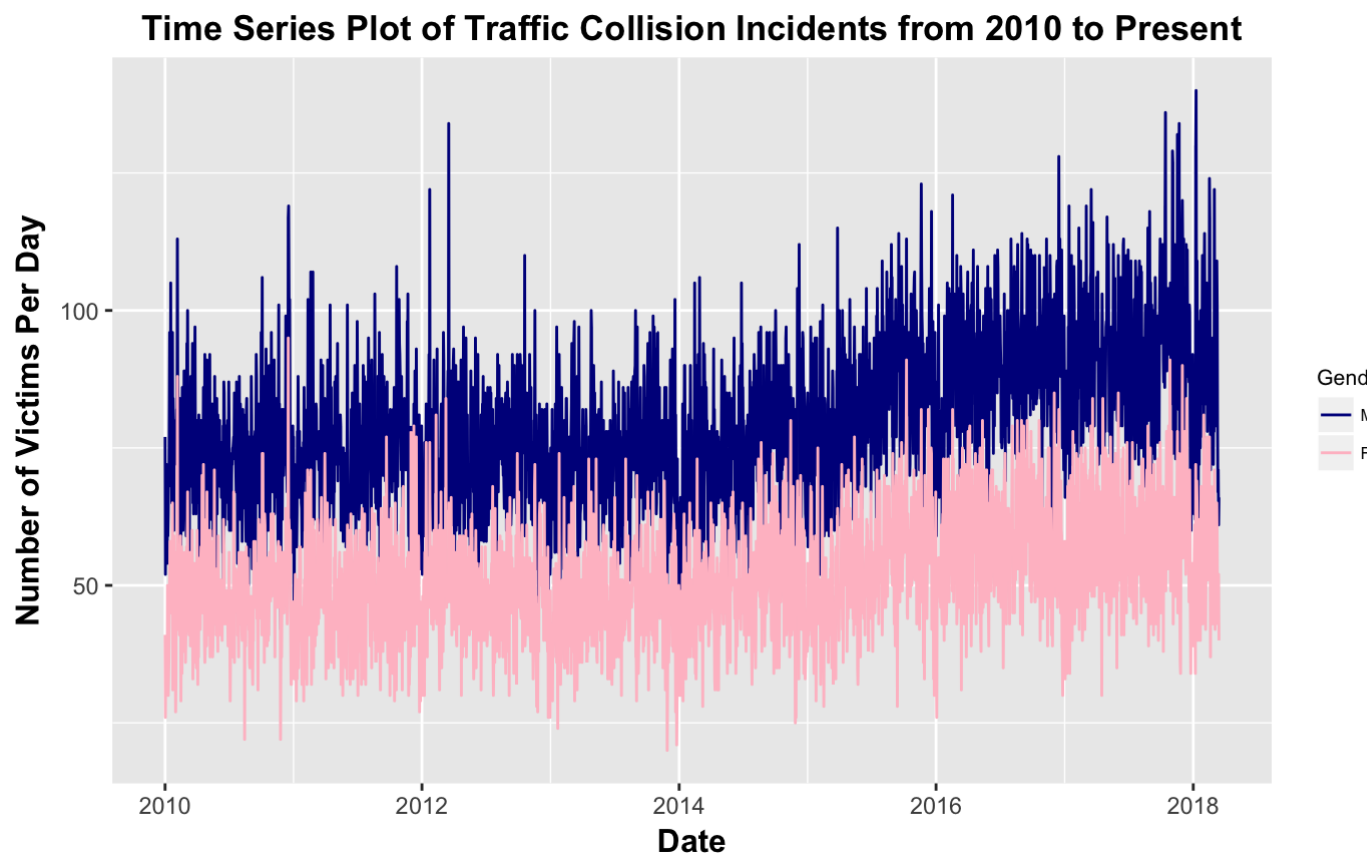
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Agenda

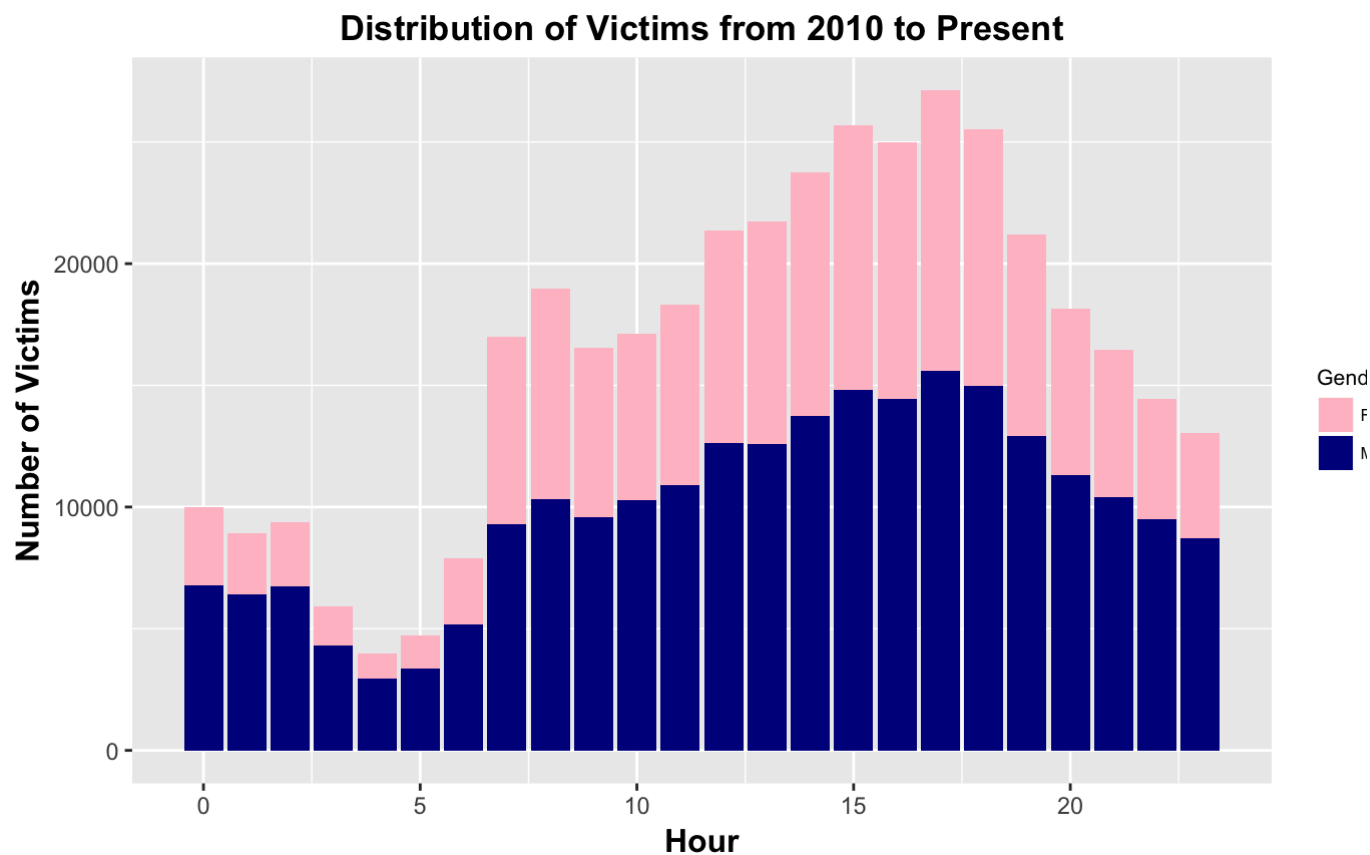
- Objective of our project
- Correlations between year, time, sex, age, and race
- Explore other factors such as personal income and unemployment rate

Data and Questions

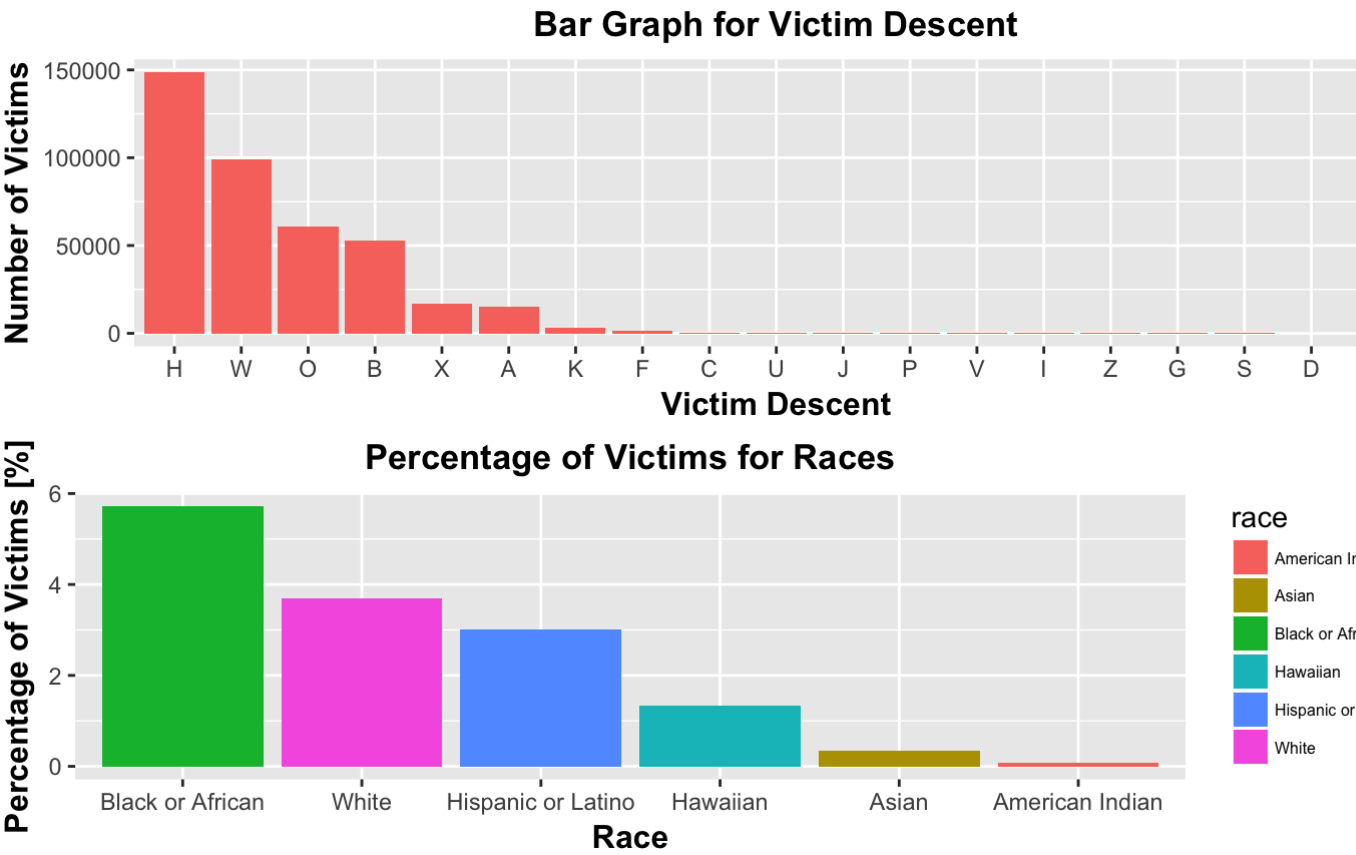
- Data set from Los Angeles Police Department
- 406,000 rows and 18 columns
- 2 more supplementary datasets on population of LA and information on personal income and unemployment
- What is the correlation between sex, age, and race to the total number of traffic victims in Los Angeles from 2010 to present?
- Which race is most likely to be the victim of traffic collision?
- Are personal income and unemployment rate crucial factors for victim increase?



- Trend for victims from 2010 to 2015 is consistent and stable
- Slight increase of victims in 2016
- Both male and female have similar trend of increase



- Least victims in early morning from 4AM to 5AM (4,716)
- Most victims in late afternoon at 5PM (27,117)
- Most traffic collisions happen around after work and school

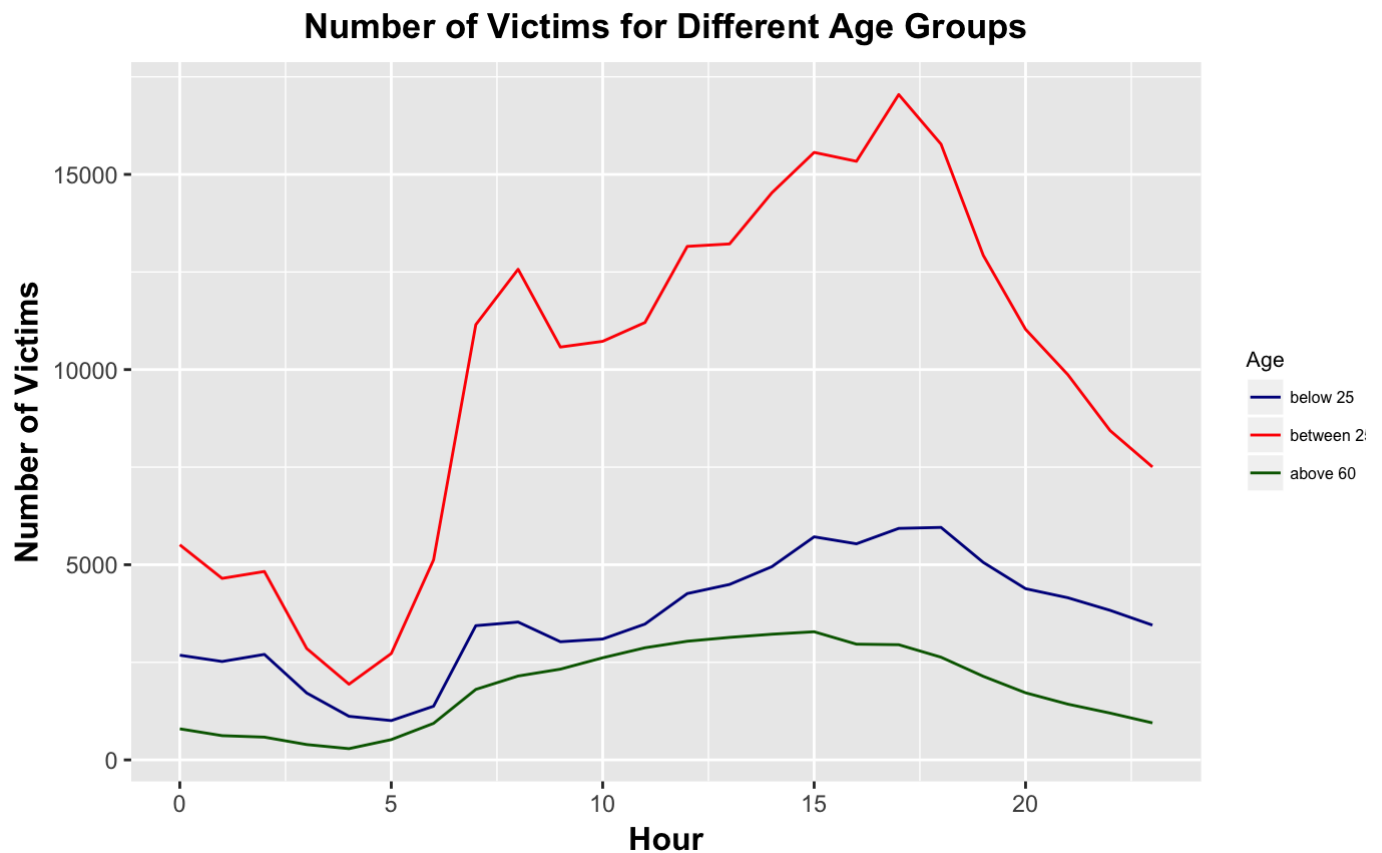


Note

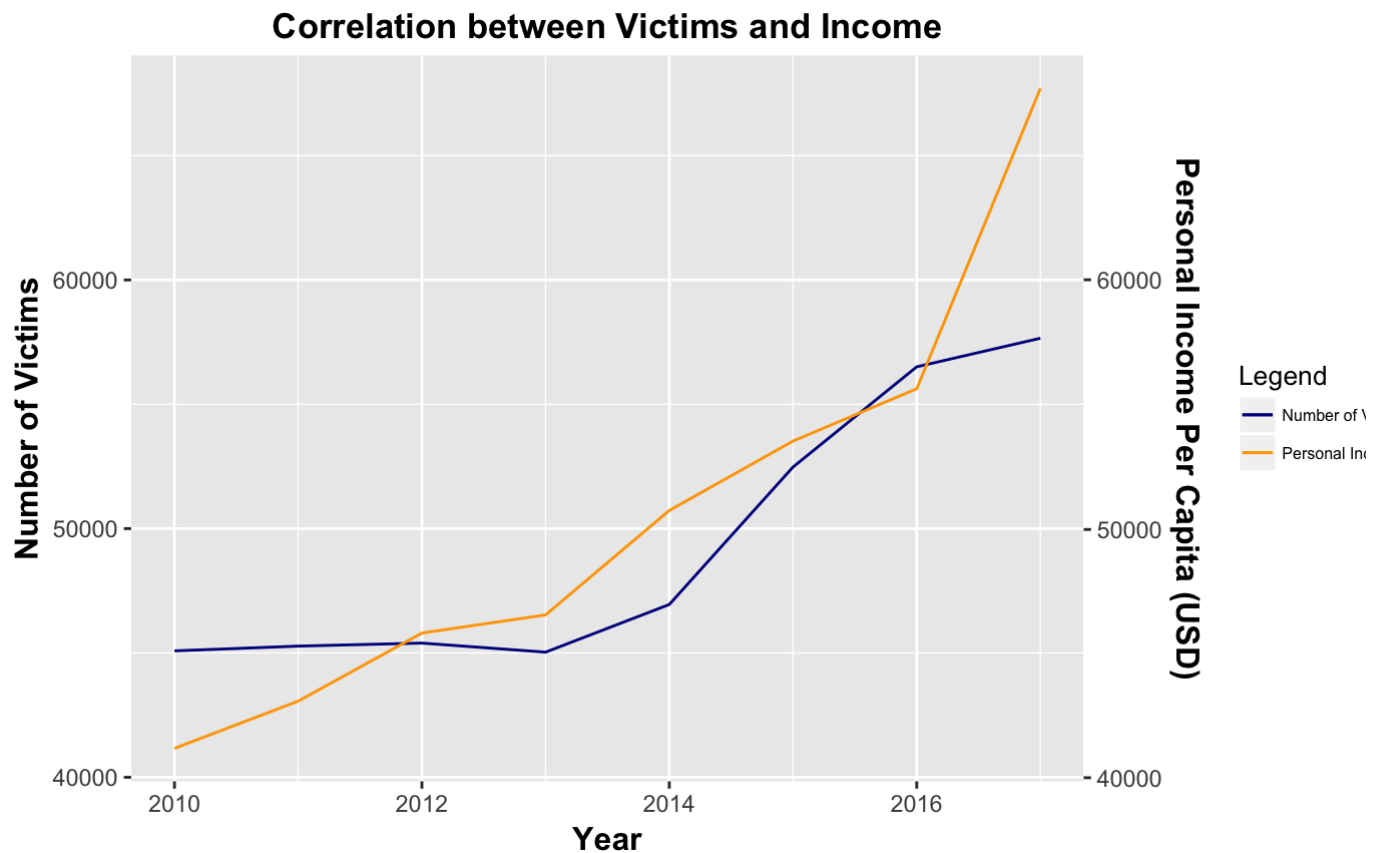
H- Hispanic, W- White, O- Other, B- Black, X- Unknown, A- Other Asian, K- Korean, F- Filipino, C- Chinese, U- Hawaiian

Percentage of Victims by Race

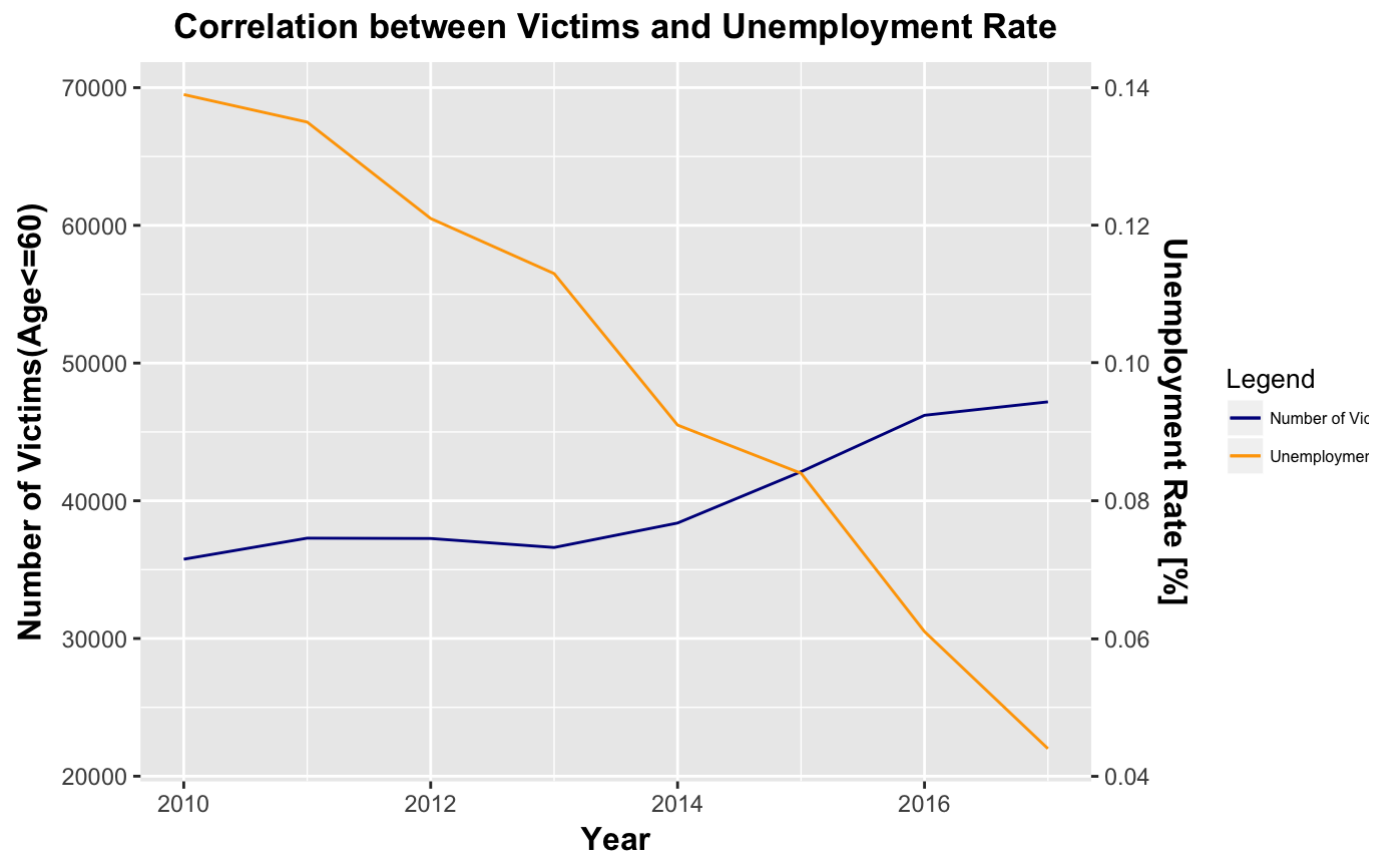
race	percentage
Black or African	5.7289019
American Indian	0.0828573
Asian	0.3519017
Hawaiian	1.3341007
Hispanic or Latino	3.0207720
White	3.6852503



- Most victims are between 25 to 60 years old
- Least victims are above 60 years old
- Victims increase from 4AM to 6AM due to more people commute to work
- Number of victims decrease after 7PM

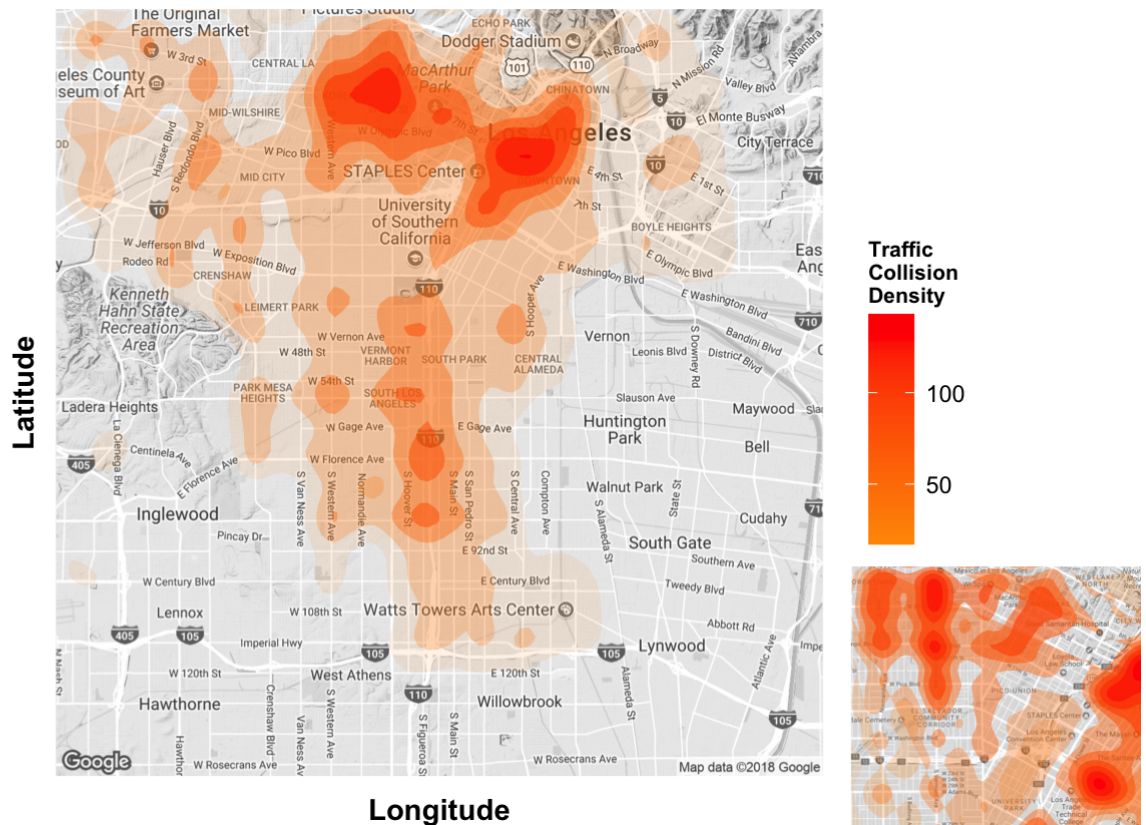


- Personal income per capita increases as number of victims increases
- Strong positive correlation between 2013 and 2016
- Conclude more personal income cause more traffic and more collisions



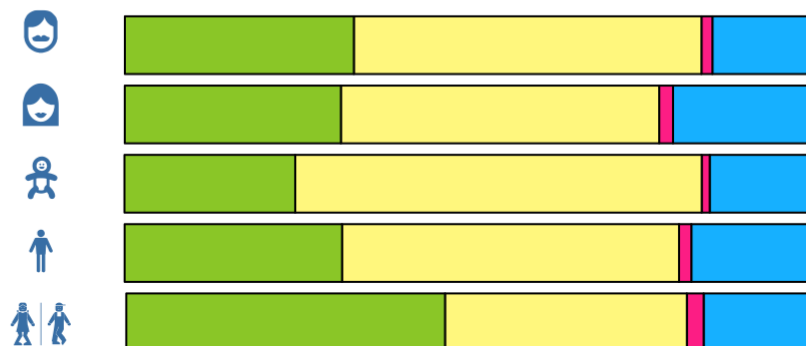
- Strong negative correlation
- As unemployment rate decreases, the number of victims increases
- Low unemployment means more people commuting to work, cause more collisions

Density Plot of Traffic Collision in the City of LA



- Main graph is an overview density plot, small one is a zoomed in density plot
- Main traffic collisions happen in downtown LA and HWY 110

Summary Graph



Descent	Male	Female	Youth	Adult	Elder
Black or African	27270	25574	8584	36972	7296
Asian	2888	2476	647	3649	1091
Hispanic or Latino	91531	56941	32842	99974	15712
White	60303	38669	13796	64505	20705

Conclusion

- Main factors are sex, race, age, personal income per capita, and unemployment rate
- Sex, race, age, and personal income per capita are strongly positively correlated with number of victims
- Unemployment rate is strongly negatively correlated with number of victims
- More male victims than female victims
- Victims are mostly likely in age group between 25 to 60
- People of Black and African American descent are most likely to be victims from traffic collisions
- After work time has the highest collision rate