Los Angeles Crime

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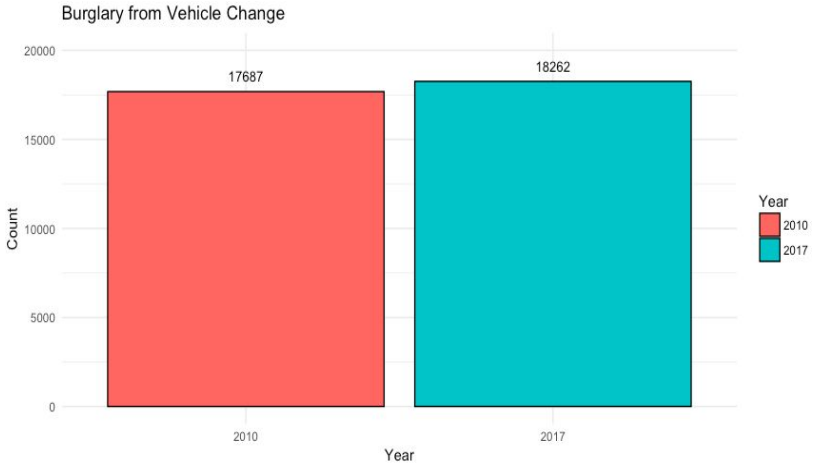
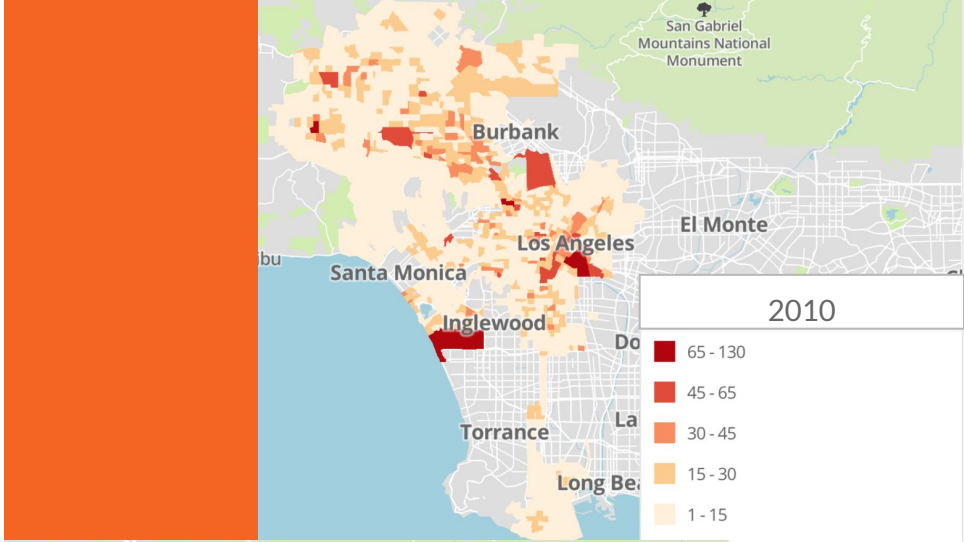
Our Question

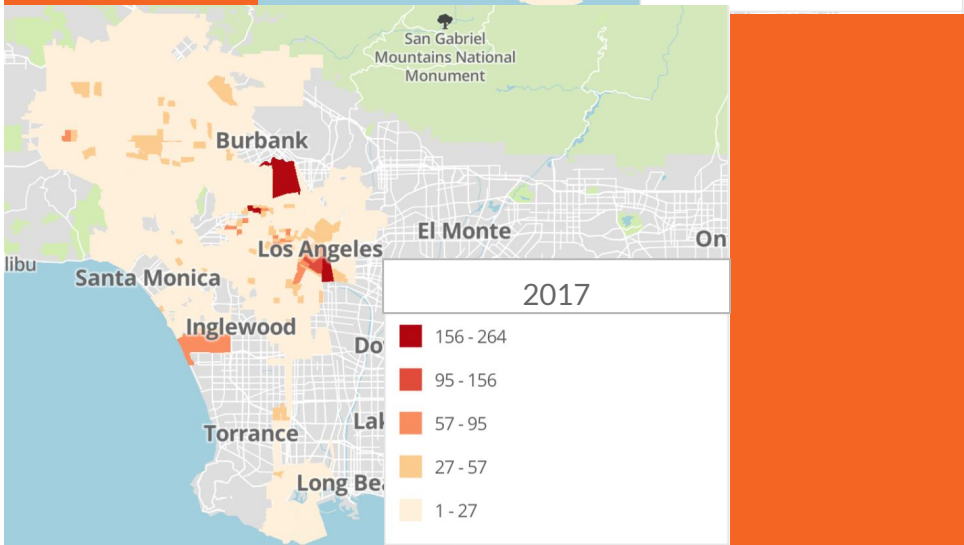
➔ Considering the advancements of vehicle technology between 2010 and 2017, have both the number of burglaries from vehicles and car collisions in Los Angeles decreased?

Analysis: Burglary From Vehicles

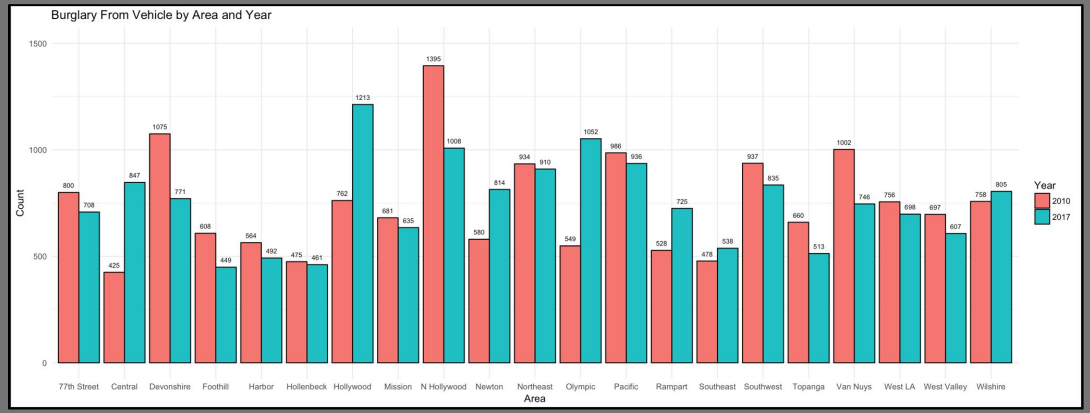
➔ Burglary from vehicles has increased by only 3.25% since 2010







– A Breakdown by Area and Ethnicity

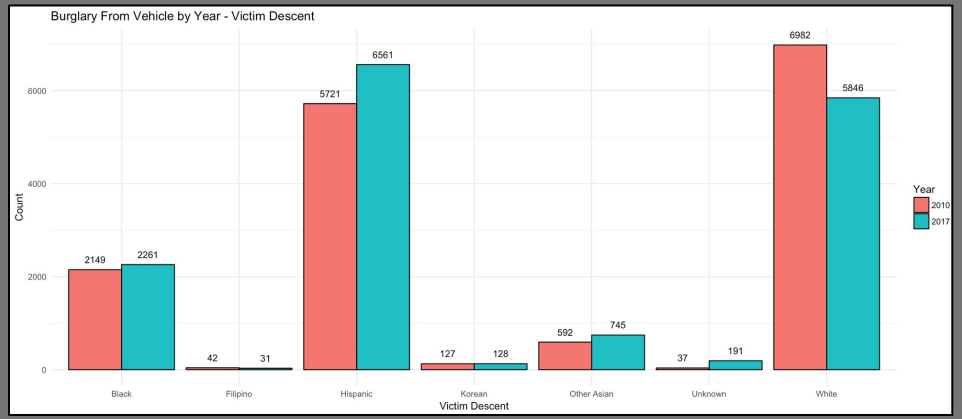


Top Left

- ➔ 21 police department divisions
- ➔ 13 areas decreased in burglaries from vehicles
- ➔ When taking population into account, burglaries from vehicle decreased

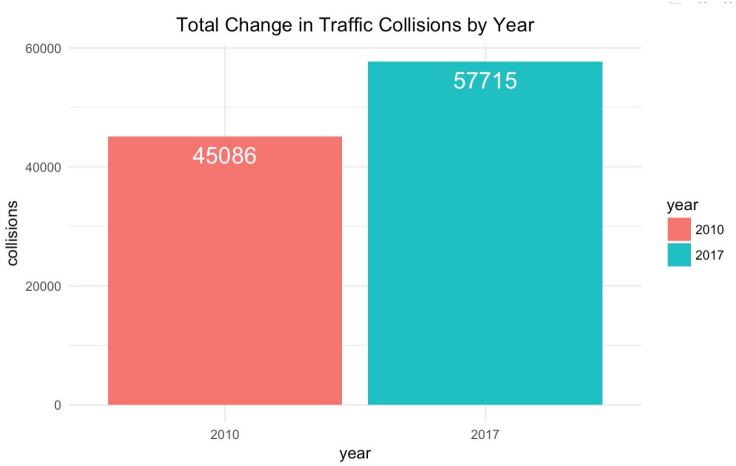
Bottom Right

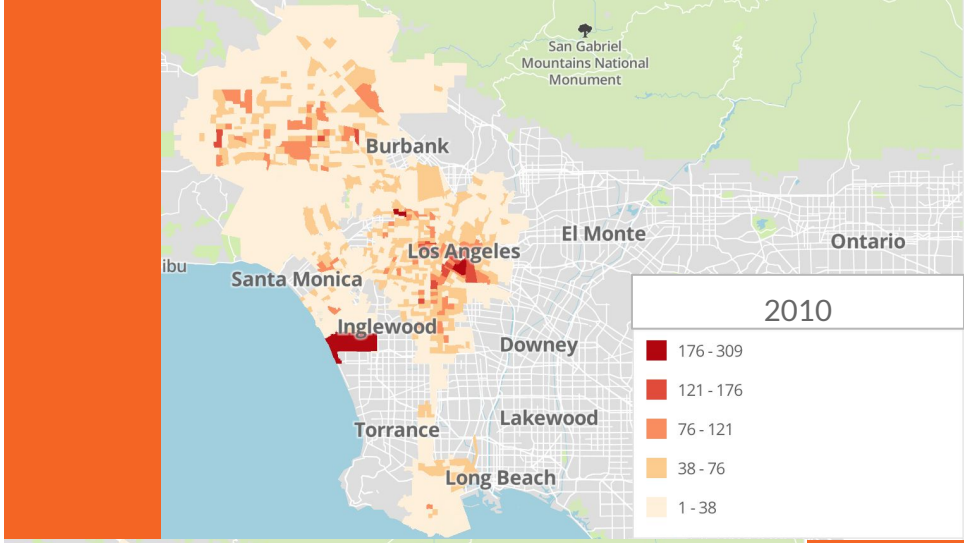
- ➔ Largest **INCREASE** in victim descent: 15% (Hispanic)
- ➔ Largest **DECREASE** in victim descent: 16% (White)

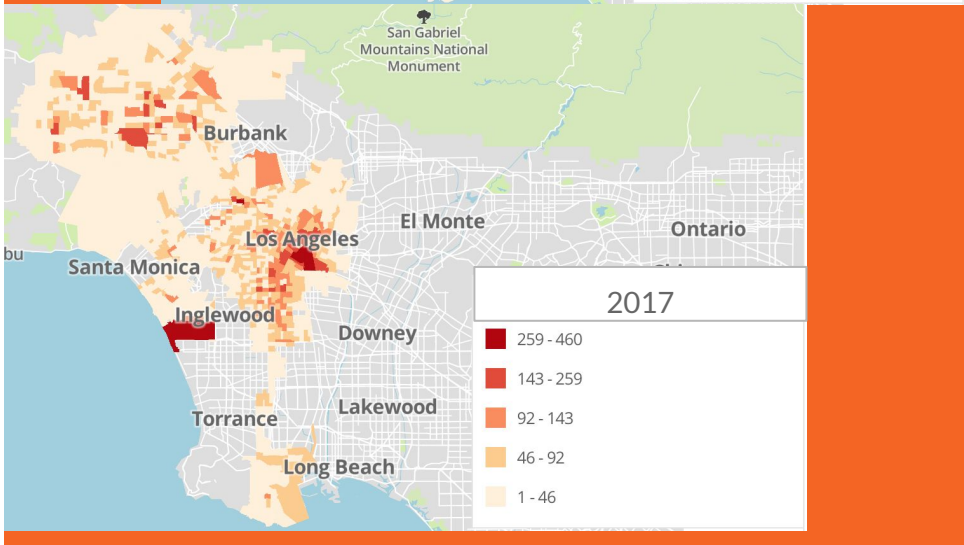


Analysis: Traffic Collisions

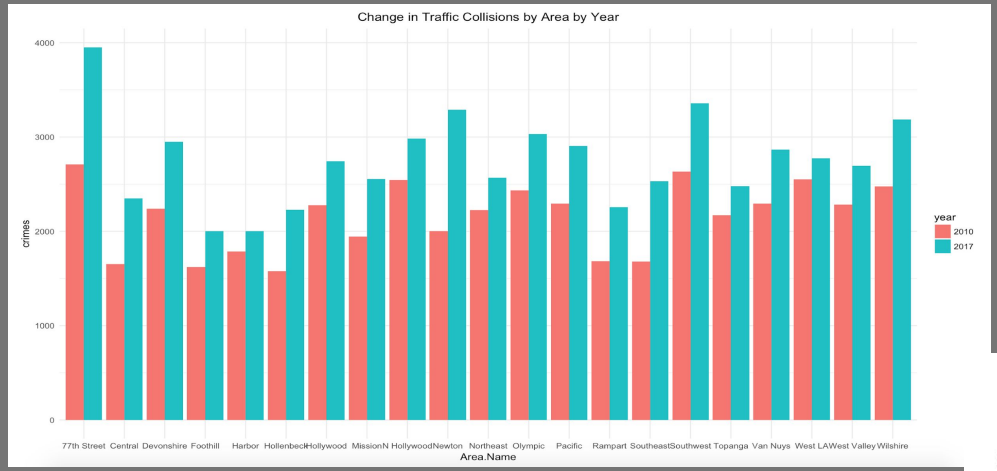
➔ Traffic collisions have increased by approximately 28% since 2010





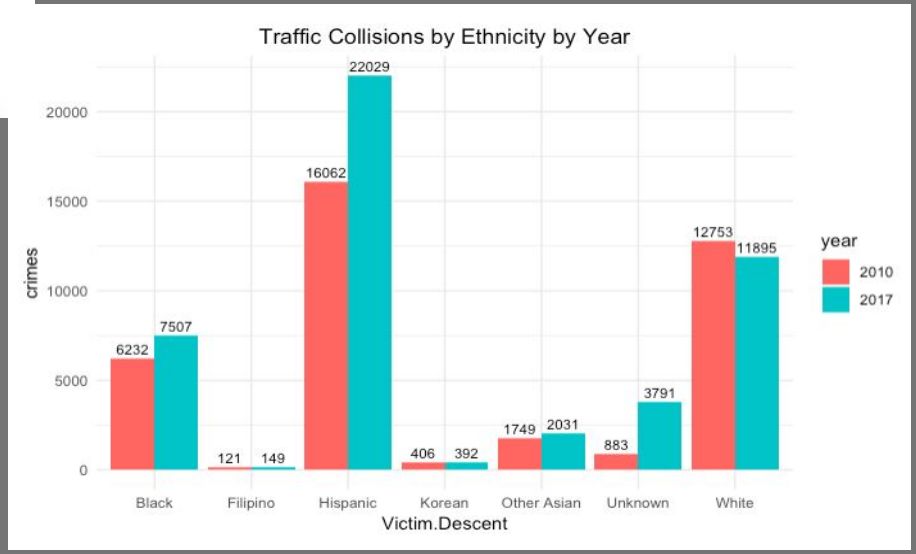


– A Closer Look at Areas and Ethnicity



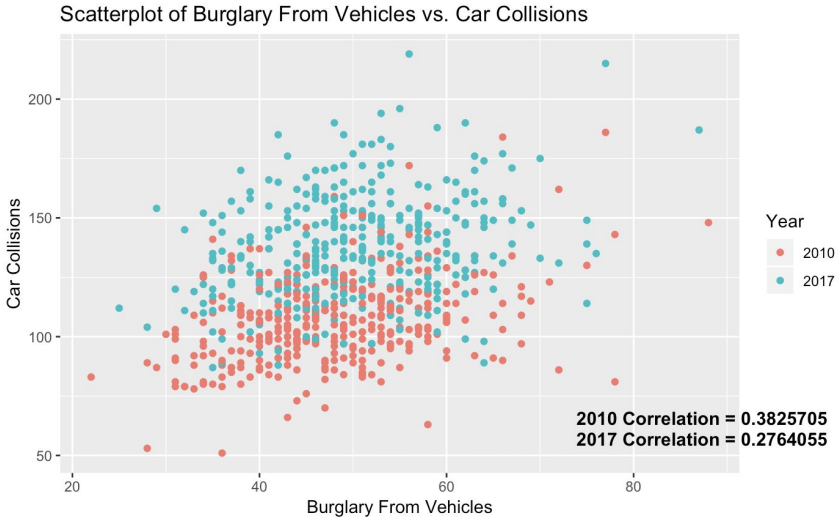
➔ All areas have demonstrated an increase; however, 77th Street, Newton, and Southeast area illustrate the highest change

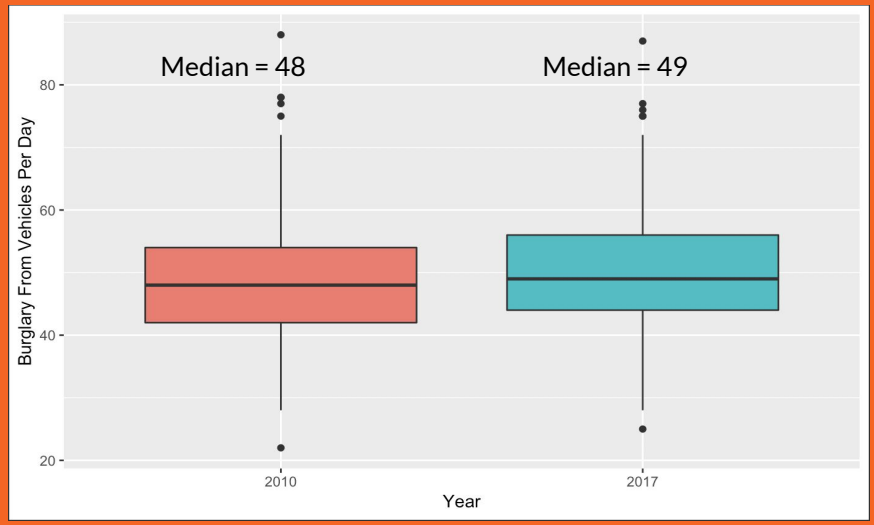
➔ Almost every major ethnic group (Black, Hispanic, Other Asian) has experienced an increase in traffic collisions except those of white descent.

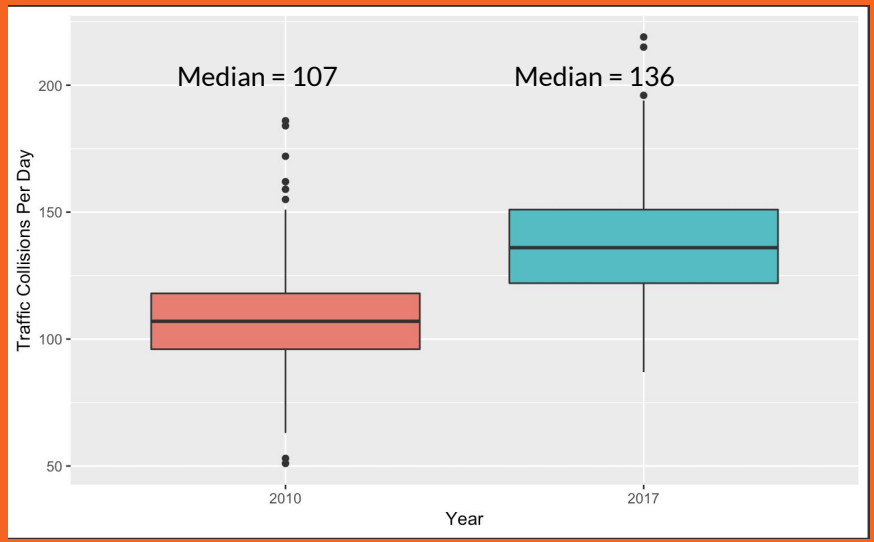


Comparison Between the Two Datasets

- ➔ Slight increase for Burglary from Vehicles
- ➔ Major increase for Traffic Collisions







– Comparison Between the Two

- ➔ Burglary is significant for both years
- ➔ Plots of both model closely fit model assumptions

```
Call:
lm(formula = TrafficCollision ~ CrimeCommitted, data = ctdata2010)

Residuals:
    Min      1Q  Median      3Q     Max
-51.629 -10.907  -1.294   9.817  63.592

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    72.73596    4.50291  16.153  < 2e-16 ***
CrimeCommitted  0.72230    0.09156   7.889 3.62e-14 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 16.84 on 363 degrees of freedom
Multiple R-squared:  0.1464,    Adjusted R-squared:  0.144
F-statistic: 62.24 on 1 and 363 DF,  p-value: 3.619e-14
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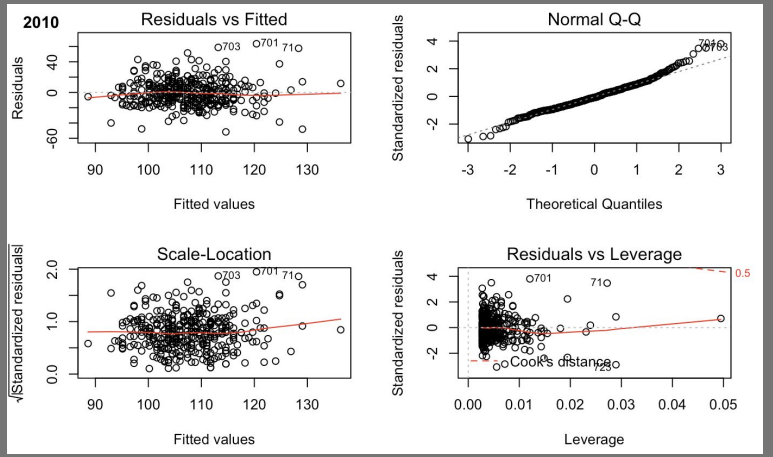


```
Call:
lm(formula = TrafficCollision ~ CrimeCommitted, data = ctdata2017)

Residuals:
   Min     1Q Median     3Q    Max
-57.57 -14.45  -0.64  12.52  77.55

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    105.5906     5.9436   17.77  < 2e-16 ***
CrimeCommitted   0.6403     0.1168    5.48 7.98e-08 ***
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Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 21.12 on 363 degrees of freedom
Multiple R-squared:  0.0764,    Adjusted R-squared:  0.07386
F-statistic: 30.03 on 1 and 363 DF,  p-value: 7.982e-08
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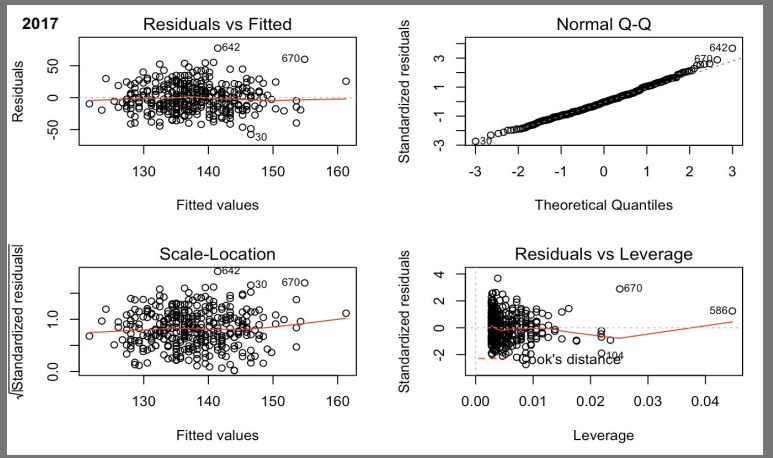

Conclusion

- ➔ Holding all factors constant, both burglaries from vehicles and car collisions have increased since 2010
- ➔ For future explorations, we would like to analyze other factors that may have impacted our findings, including but not limited to:
  - ◆ Declining Prison Populations
  - ◆ Distracted Driving Ordinances
  - ◆ Implementation of Advanced Car Features