

Statistics for Experimentalists

Project: COVID19 Cases in Los Angeles

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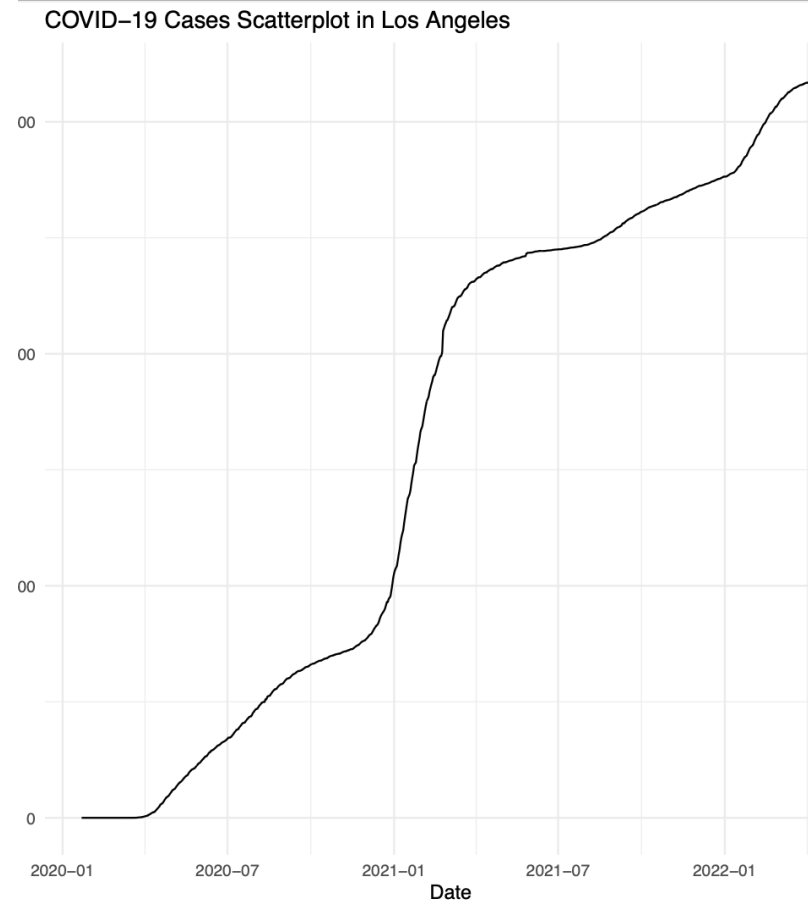
Mean and Standard Deviation of Cases

- Mean of All Cases: 134.952453767264
 - Mean of LA Cases: 16111.31
 - Standard Deviation of All Cases: 622.804053693512
 - Standard Deviation of LA Cases: 11169.54
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- Dates Range: January 22, 2020 – April 16, 2022

Table

ID	Name	Total_Cases
1	Los Angeles	3534088
2	San Francisco	201828
3	San Diego	991624
4	Sacramento	379292
5	San Jose	48833

Scatterplot

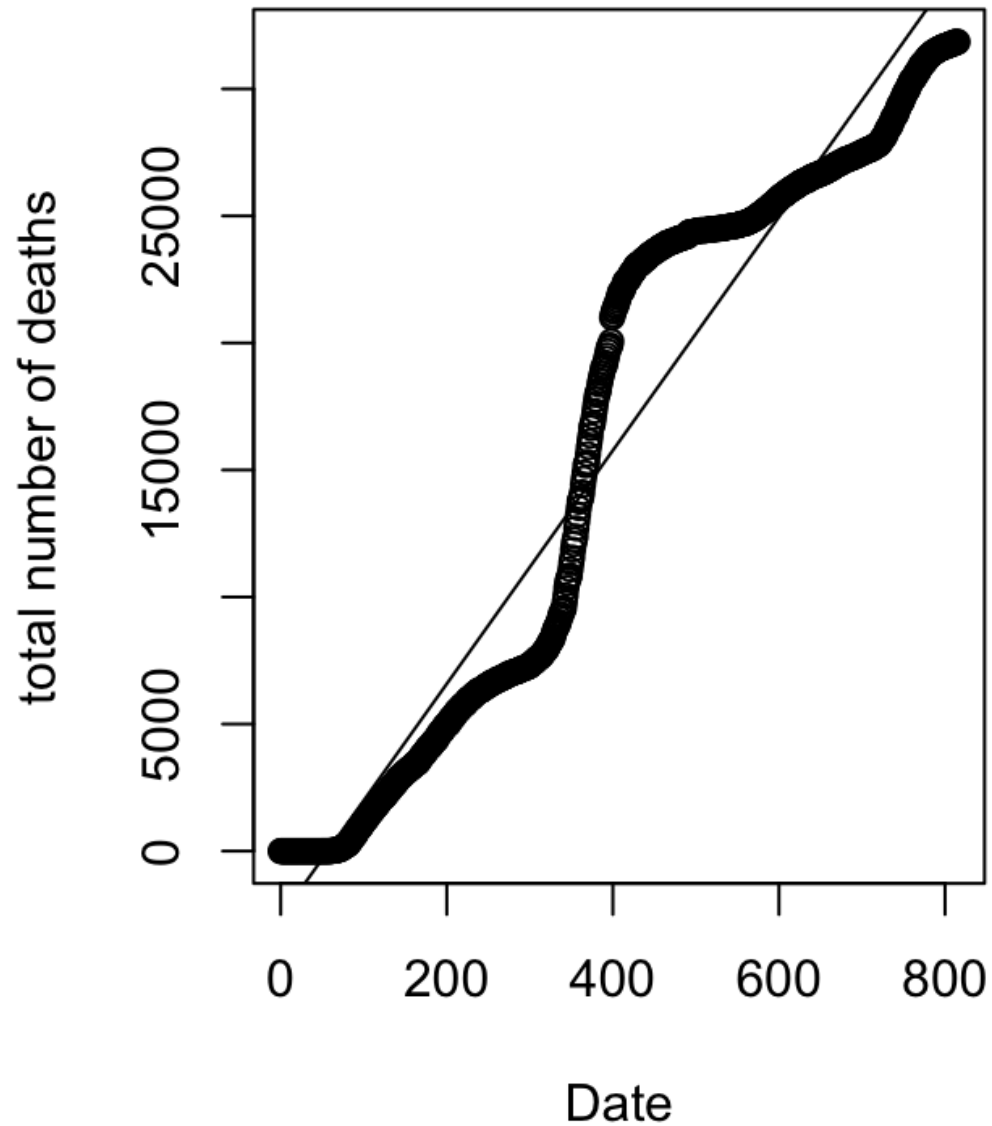


Hypothesis Test

One Sample t-Test

- $t = 40.859$
- $df = 815$
- $p - value < 0.000000000000000022$
- $H_A: \mu > 134.9525$
- $H_o: \mu = 134.9525$
- 95% confidence interval: $(15467.42, \infty)$

COVID-19 Deaths



Linear Regression

$$r = 0.961694$$

$$\hat{y} = -2604.00 + 45.93\hat{x}$$

All Data

$$r = 0.1454277$$
$$\hat{y} = -21.7323 + 0.3845\hat{x}$$

