

For this quiz, we will investigate information about Traffic Stops made by the St. Paul MN Police Department for 2017. I have collated the data from the original source and made a Google Spreadsheet version available on our course website.



Number of tickets issued to drivers in St. Paul

Data: https://docs.google.com/spreadsheets/d/1YwYAKlmRHw8hzRCPoMLDudlu8XuM1xDG3yk_rRTn7nE/copy?usp=sharing

Article Source: <https://www.twincities.com/2018/01/26/how-many-people-did-st-paul-police-pull-over-last-year-police-stops-by-the-numbers/>

Original Data Source: <https://information.stpaul.gov/Public-Safety/Traffic-Stop-Dataset/kkd6-vvns>

Download the St. Paul Traffic Stop data from our course website. Use the Pivot table feature of Google Sheets to answer the following questions.

1. How many citations were issued by the St. Paul Police Department in 2017? (1 pt)

Number: 18825

	A	B	C	D	E
1	CITATION ISSUED?				
2		No	Yes	Grand Total	
3	COUNTA of CITATION ISSUED?	0	13908	18825	32733

2. What percentage of the stops resulted in a citation being issued? (1 pt)

Percent of Stops Resulting in a Citation being Issued: 57.51%, a little under 60%
of stops resulted in a citation being issued

Note: Change Show as: in the Values box to % of row to obtain this answer.

	A	B	C	D	E
1	CITATION ISSUED?				
2		No	Yes	Grand Total	
3	COUNTA of CITATION ISSUED?	0.00%	42.49%	57.51%	100.00%

3. Recreate the following table and chart. (3 pts)

Pivot table setup

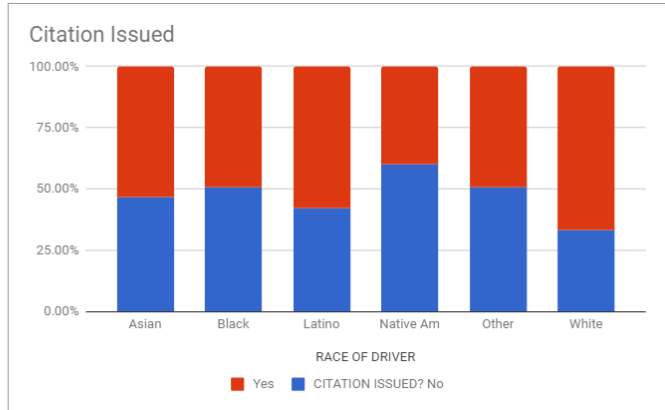
Rows: RACE OF DRIVER

Columns: CITATION ISSUED?

Values: CITATION ISSUED?, change Show as to % of row.

Filters: RACE OF DRIVER, used to remove blank row in table

COUNTA of CITATION ISSUED? RACE OF DRIVER	CITATION ISSUED?		Grand Total
	No	Yes	
Asian	46.69%	53.31%	100.00%
Black	50.88%	49.12%	100.00%
Latino	42.30%	57.70%	100.00%
Native Am	60.00%	40.00%	100.00%
Other	50.49%	49.51%	100.00%
White	33.23%	66.77%	100.00%
Grand Total	42.30%	57.70%	100.00%



4. Identify whether or not the following statements are TRUE or FALSE using the table/chart you obtained in Question 3 above. (2 pts each)

a. Of the races considered here, whites were most likely to get a citation.	TRUE	FALSE
b. Over 50% of the whites stopped received a citation.	TRUE	FALSE
c. Blacks were more likely to receive a citation than whites.	TRUE	FALSE

5. Consider the following statement: "Women are more likely to get a citation than men". Provide a table and/or chart that either supports or refutes this statement. (2 pts).

SUPPORTED, about 65% of females received a citation; whereas, only about 54% of males received a citation.

COUNTA of CITATION ISSUED? GENDER OF DRIVER	CITATION ISSUED?	
	No	Yes
Female	35.34%	64.66%
Male	46.45%	53.55%
Grand Total	42.30%	57.70%

6. Consider the following statement: “Women are more likely to get a citation than men; but, this is only true for some of the races.” Provide a table and/or chart that either supports or refutes this statement. (3 pts).

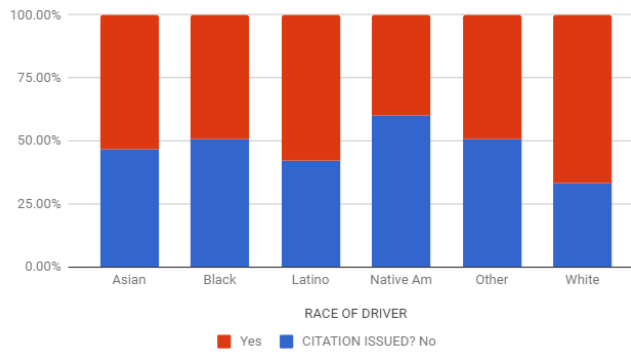
REFUTED, The fact that women got a citation at a higher rate than men is true for all races under consideration here, not just some of the races.

COUNTA of CITATION ISSUED?		CITATION ISSUED?		
RACE OF DRIVER	GENDER OF DRIVER	No	Yes	Grand Total
Asian	Female	37.55%	62.45%	100.00%
	Male	50.96%	49.04%	100.00%
Asian Total		46.69%	53.31%	100.00%
Black	Female	44.87%	55.13%	100.00%
	Male	53.98%	46.02%	100.00%
Black Total		50.88%	49.12%	100.00%
Latino	Female	38.28%	61.72%	100.00%
	Male	44.27%	55.73%	100.00%
Latino Total		42.30%	57.70%	100.00%
Native Am	Female	52.63%	47.37%	100.00%
	Male	65.06%	34.94%	100.00%
Native Am Total		60.00%	40.00%	100.00%
Other	Female	46.25%	53.75%	100.00%
	Male	52.49%	47.51%	100.00%
Other Total		50.49%	49.51%	100.00%
White	Female	27.48%	72.52%	100.00%
	Male	37.51%	62.49%	100.00%
White Total		33.23%	66.77%	100.00%
Grand Total		42.30%	57.70%	100.00%

7. Is the pattern you discovered between Citations and Race (see problem 3) the same or different from the pattern than exists between whether or not a driver is Frisked and Race. A compare and contrast of the patterns between Citations vs. Race and Frisked vs. Race could be used to improve policing in St. Paul. Provide a suggestion based on your investigation here. (4 pts)

Suggestion: The patterns are considerable different - for CITATIONS ISSUED whites had the highest proportions (about 67%), but for DRIVERS FRISKED, blacks that the highest proportion (about 10%). This same inverted pattern exists when consider the VEHICLES SEARCHED variable as well. Thus, my suggestion might improve the training of police officers in the potential bias present when determined when to search a person or their vehicle.

CITATION ISSUED



DRIVER FRISKED

