Car Collisions in Toronto

By Elijah Lopez
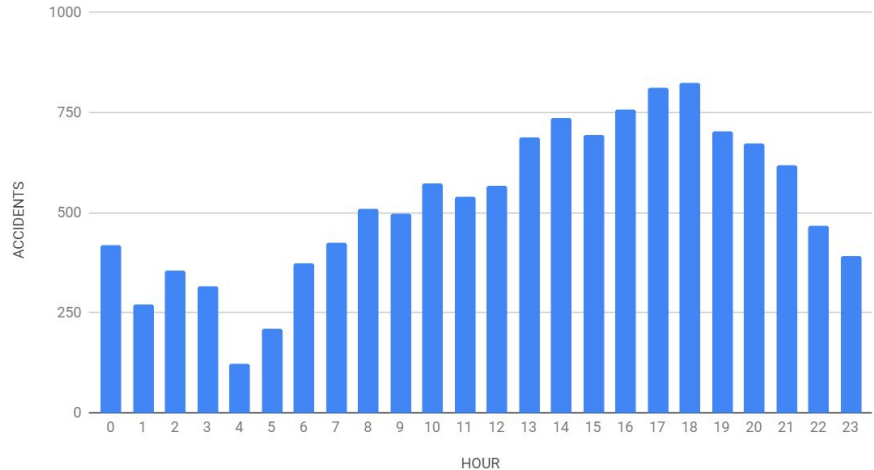
- Just got my G2 (in December 2018)

- Dangerous times on the road?

- Hypothesis: night time

- Data contains collisions where a person was KSI

Introduction

One-Variable Analysis

- ▶ Skewed left

- ▶ Safest time: 4 am - 5 am
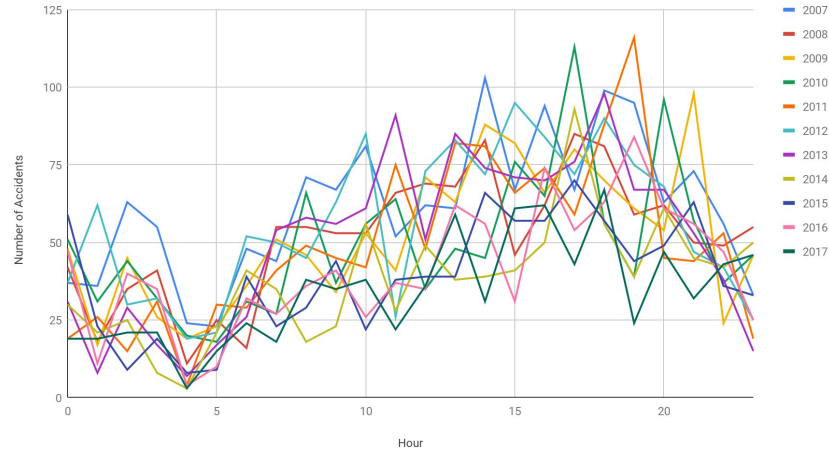
- ▶ Dangerous time: 6 pm - 7 pm

ACCIDENTS vs. HOUR (2007 - 2017)

Mean	523.1666667	Mean hour	13.2 → 1 - 2	Range	703
Median	525.5	Median hour	14 → 2 - 3	Q1	388.25
Mode	N/A	Mode hour	18 → 6 - 7	Q3	689.25
Bottom boundary	-63.25			IQR	301
Upper boundary	1140.75			Standard Dev	192.8172522
Outliers	N/A			Variance	37178.49275

Two-Variable Analysis — 1/2

Accidents by the hour in Toronto (2007 - 2017)
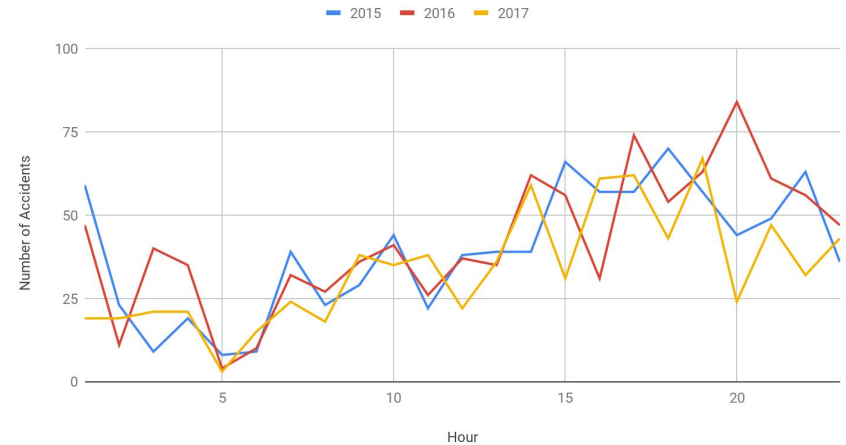

Accdents by the hour in Toronto (2015 - 2017)

- ▸ Peaks vary every year
- ▸ Common time interval: 5 pm - 6 pm
- ▸ Intervals were usually 3 pm - 7 pm
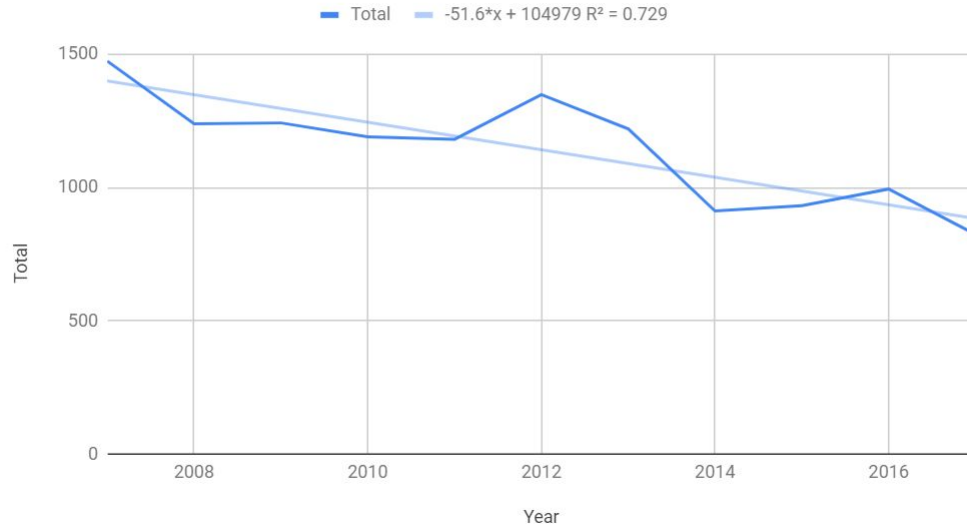
- ▸ 2015: 5 pm - 6 pm
- ▸ 2016: 7 pm - 8 pm
- ▸ 2017: 6 pm - 7 pm

Two-Variable Analysis — 2/2

Accidents per Year in Toronto (2007 - 2017)

- Total
- -51.6*x + 104979 R² = 0.729

▶ r = -0.854

▶ Less accidents every year

▶ 2018: 832

- Dangerous times are in the evenings

  - Hypothesis was somewhat correct

- Trend showed of less collisions every year

- Investigations

  - Factors of collisions

  - Done for different cities

Conclusion