

# Interstate Traffic Volume

Analysis of traffic patterns on  
local interstate highways



# Agenda

- Introductions
- Purpose
- Data and analysis
- Recommendations
- Questions

# Purpose

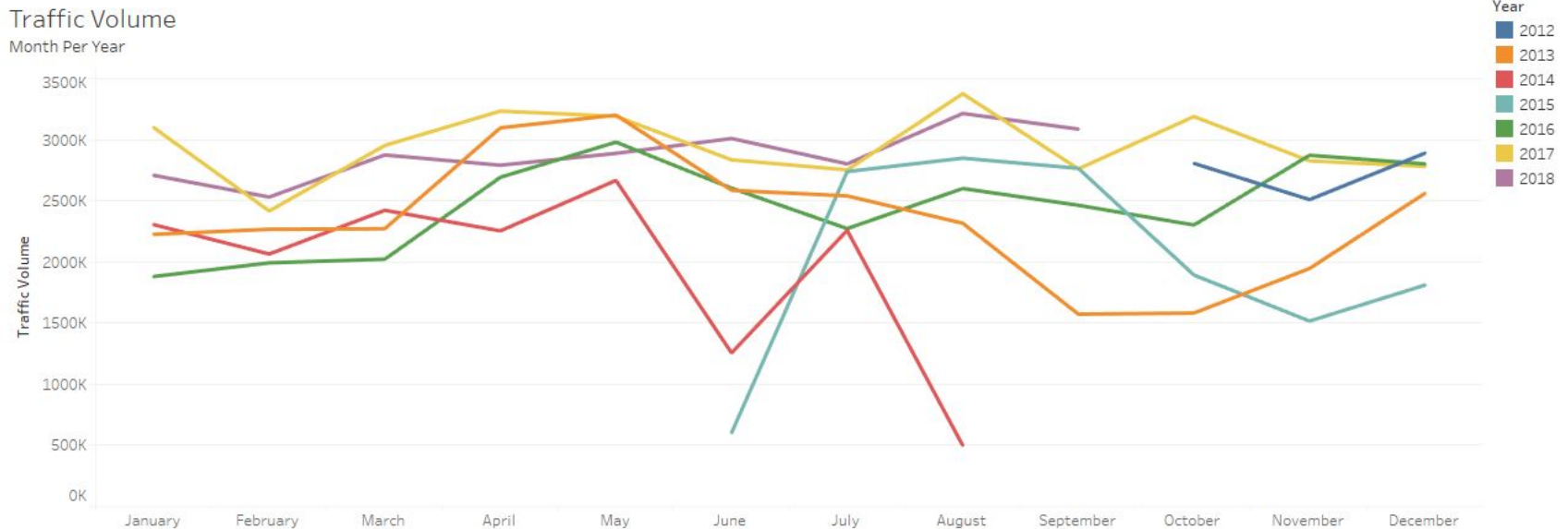
- Interstate traffic is an important contributor to commuter safety, quality of life, and area appeal to businesses/residents.
- Aim: analyze local traffic pattern historical monthly volumes, holiday travel, and weather impact to determine peak traffic contributors.
- Provide dashboard to monitor trends by hour, day, month, and year



# Monthly Traffic Volumes

**Peak months:** January, April, August, October (2017-2018)

**Year-over-year:** increase 2016-2018 vs. prior years\*



\*Note: data was unavailable during some periods in the 2012-2018 timeframe <sup>4</sup>

# Federal Holiday Travel

Highest volumes (top 3):

- New Years + MLK (January)
- Labor Day
- Thanksgiving Day

Most holidays do not align with peak travel months

Highest Traffic Volume Holidays



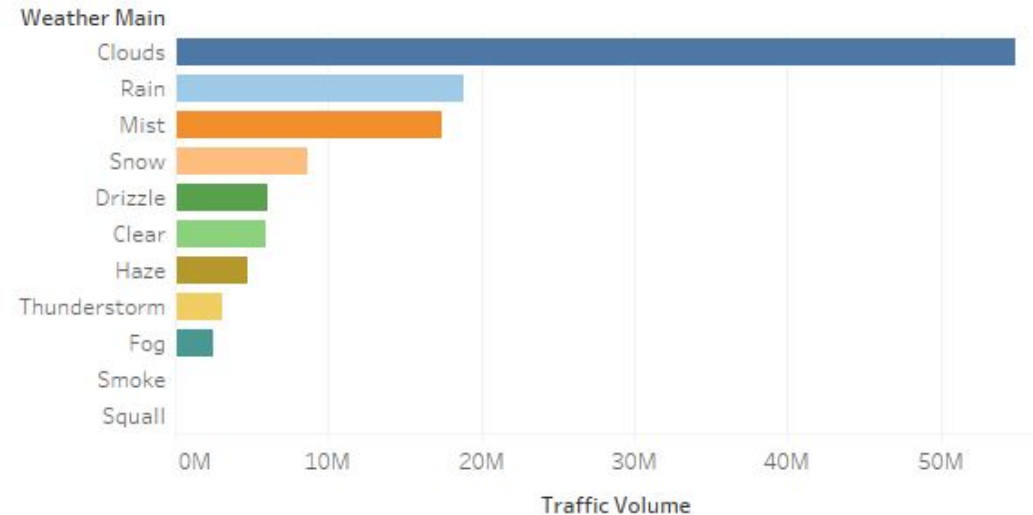
# Weather Travel Impact

Highest volume: **cloudy days**

**Precipitation** causes second highest volume cohort

Individual year volumes vary

Traffic Volume By Weather Condition



# Hourly Traffic Patterns

Rush hour: 6-9 a.m.; 3-5 p.m.

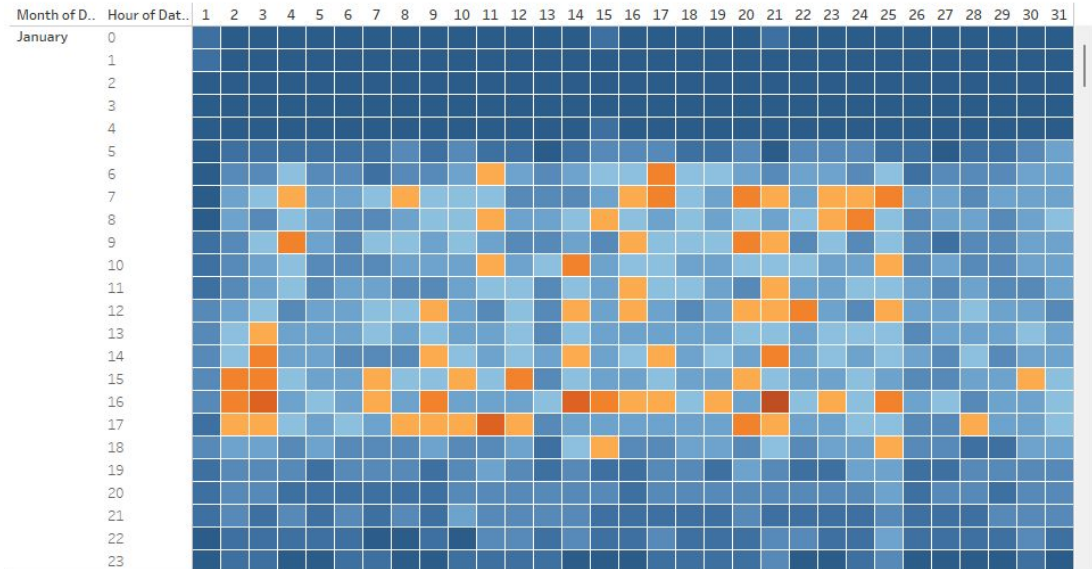
Predict peak volume by hour and day

Arrange road construction/repair timeframes

Adjust traffic metering schemes



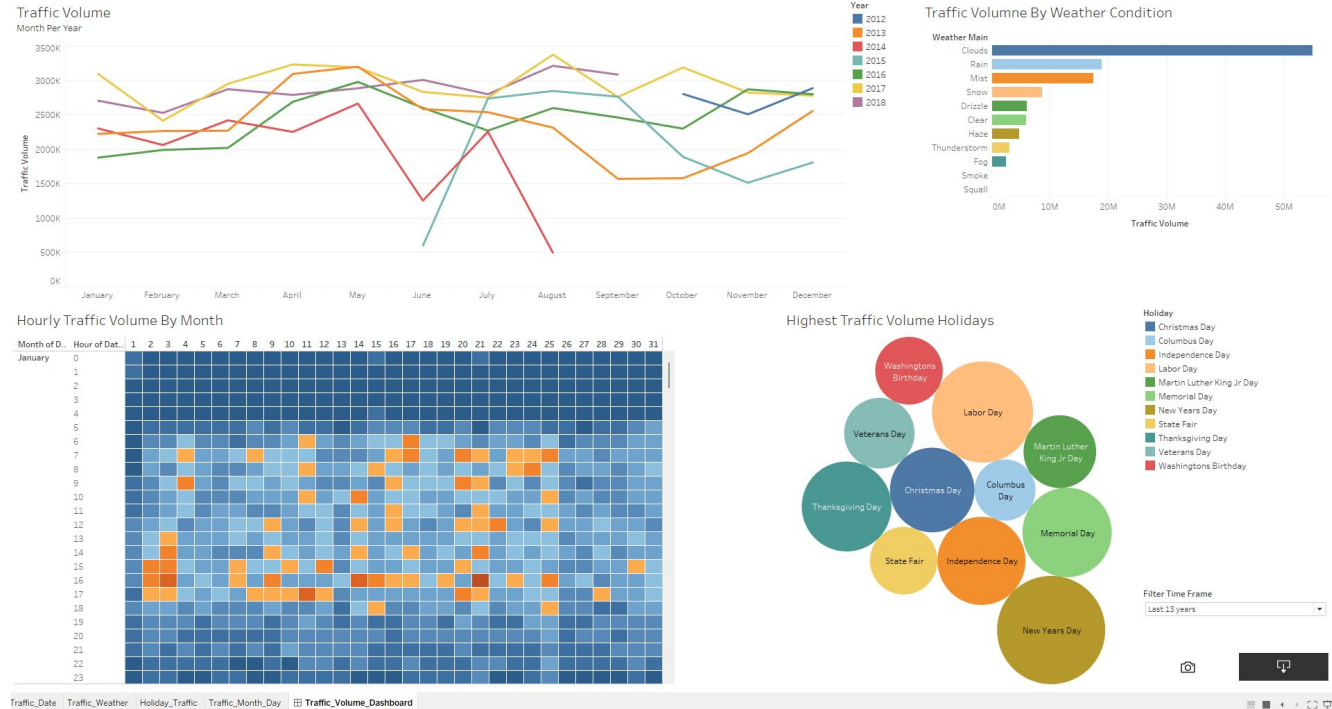
Hourly Traffic Volume By Month



# Interactive Dashboard

Permits user-driven  
data exploration

Includes time period  
filter, screen capture,  
and pdf generation





# Recommendations

Minimize construction/road repairs

- January, April, August, October
- High volume hours as shown on heat map

Consider increasing emergency response availability (top 3 travel holidays & peak months)

Raise public awareness about weather impacts on traffic volume: encourage departure time adjustment; staggered work start/end times; remote options

Promote public transportation during peak travel periods

Use the dashboard to monitor trends over time (dataset extension needed)

# Questions

