



# MINNESOTA INTERSTATE TRAFFIC VOLUME

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AN IN-DEPTH ANALYSIS OF TRAFFIC PATTERNS ON  
INTERSTATE HIGHWAYS



# WHY DO WE NEED TO MONITOR TRAFFIC VOLUME?



Counting traffic is vital for local and national governments to make informed decisions about mobility, infrastructure and taxation. This information is used to better understand the present and prepare for the future.

# Minnesota Department of Transportation want to learn more about:

- Traffic volume throughout the year; ideally organized by year, month, week, day, and hour
- Traffic volume in different weather conditions
- Traffic volume on different holidays

## **Monthly Volume**

Viewing the monthly traffic patterns allows us to find any potential trends by month.

## **Weather**

Weather can have an impact on many things, including traffic.

## **Holiday**

Our roads may see more travelers (including out of state) than expected.

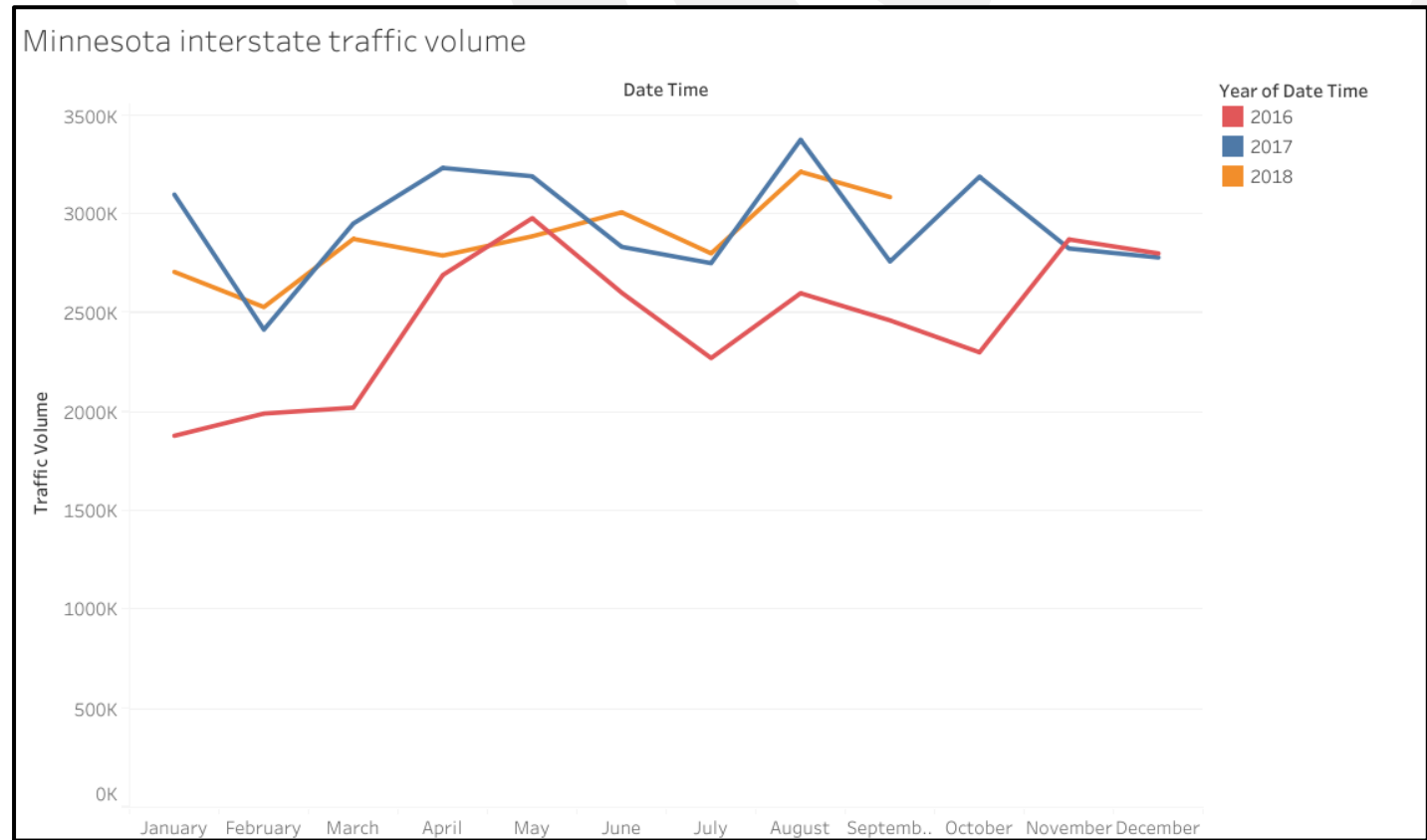
# Monthly traffic volumes

**August** - Highest volume, possible end of summer seasonal traffic

**February** - Lowest volume, best possible month for construction changes

**April** - Significant decrease in 2018 from 2017

Fairly consistent/predictable patterns

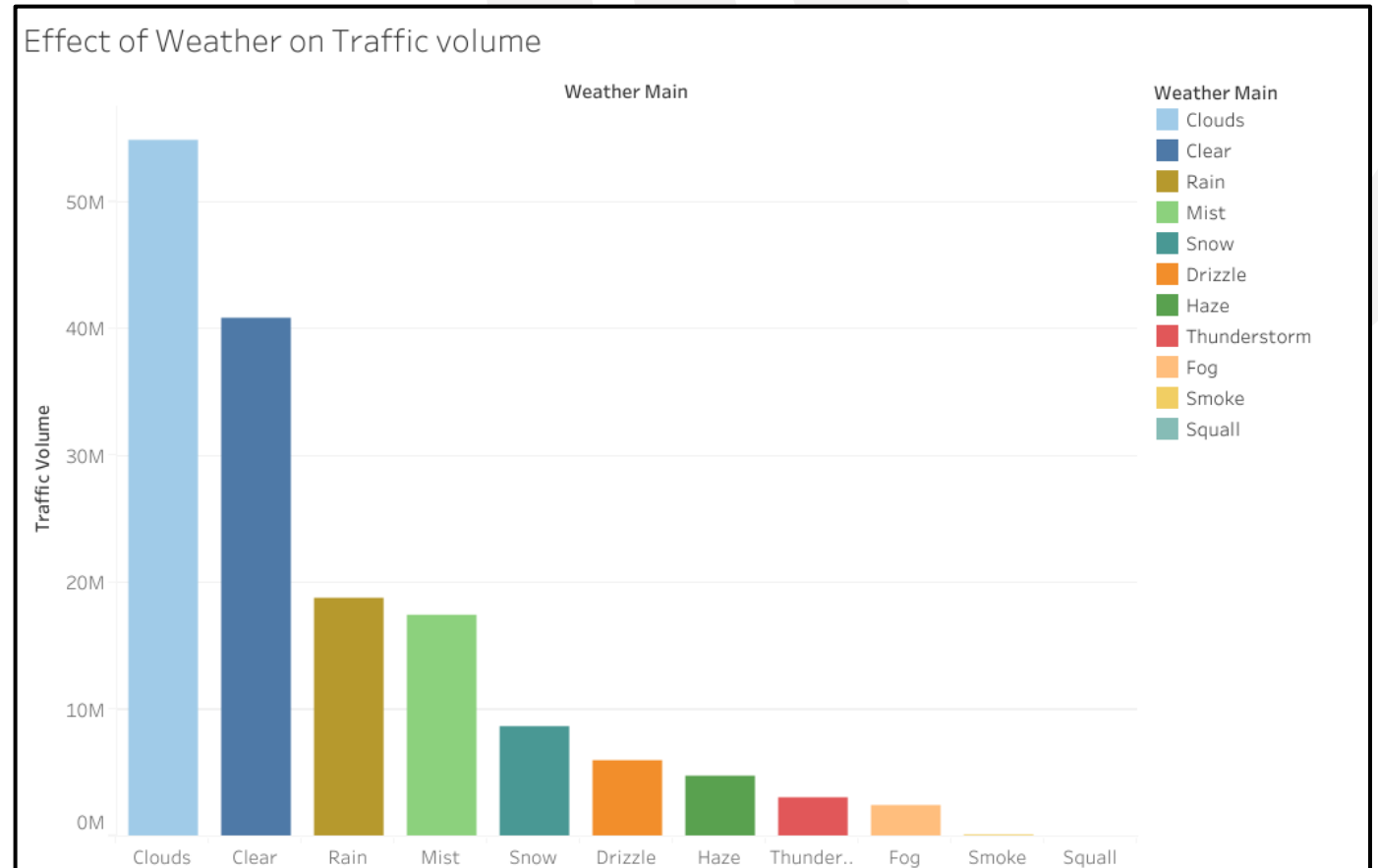


# What role does weather play?

**Clear/cloudy conditions** result in the highest traffic volume.

**Precipitation** has a significant impact on traffic volume, though a surprising number of motorists continue to drive in rain.

**Low-visibility conditions** result in the lowest traffic volume.



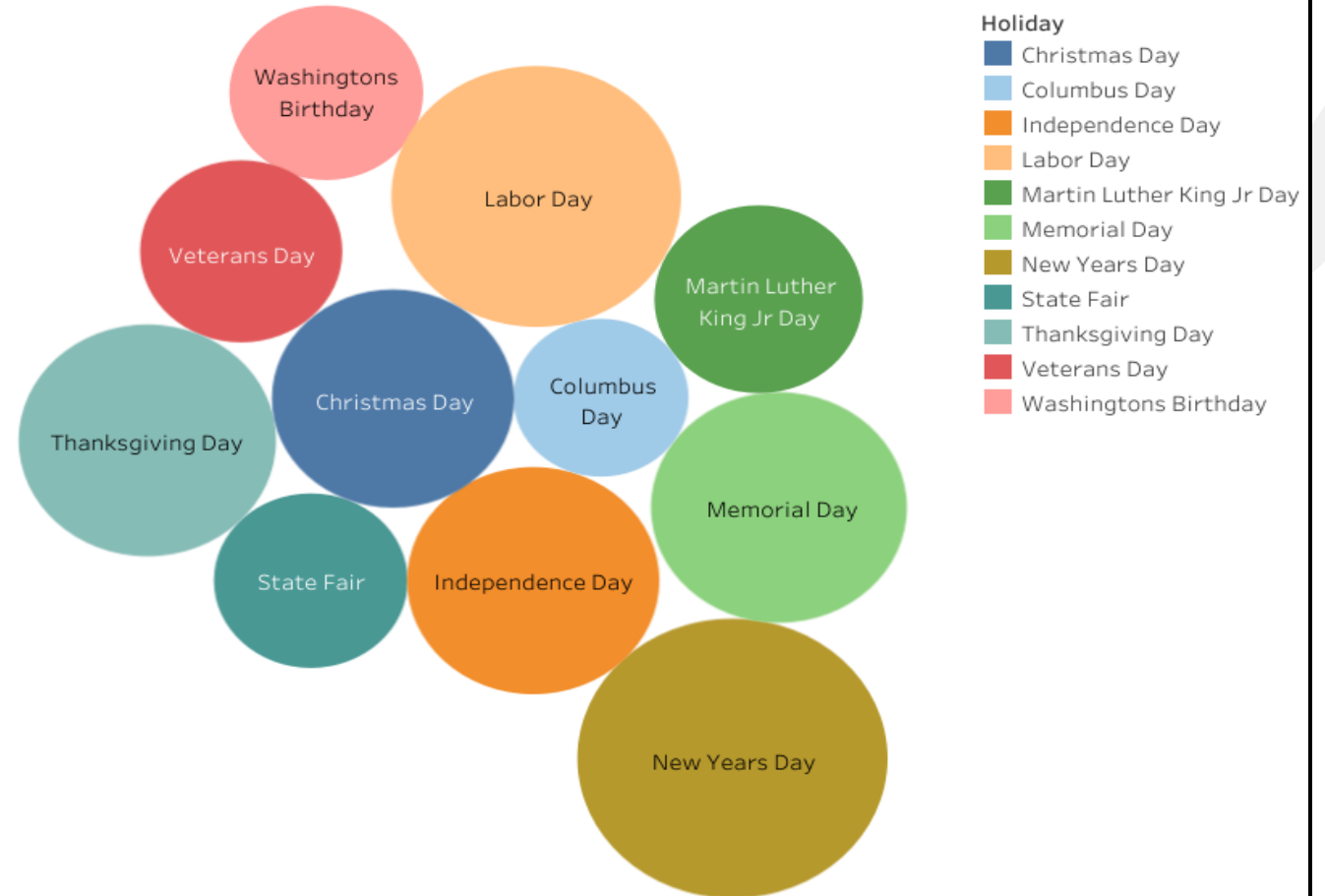
# Holiday Travel

**August** - State fair starting in August

**January** - High traffic on New Years and Martin Luther King Jr. Day contribute to most of January's total

**Most holidays have little impact on total traffic volume.**

## Holiday Travel

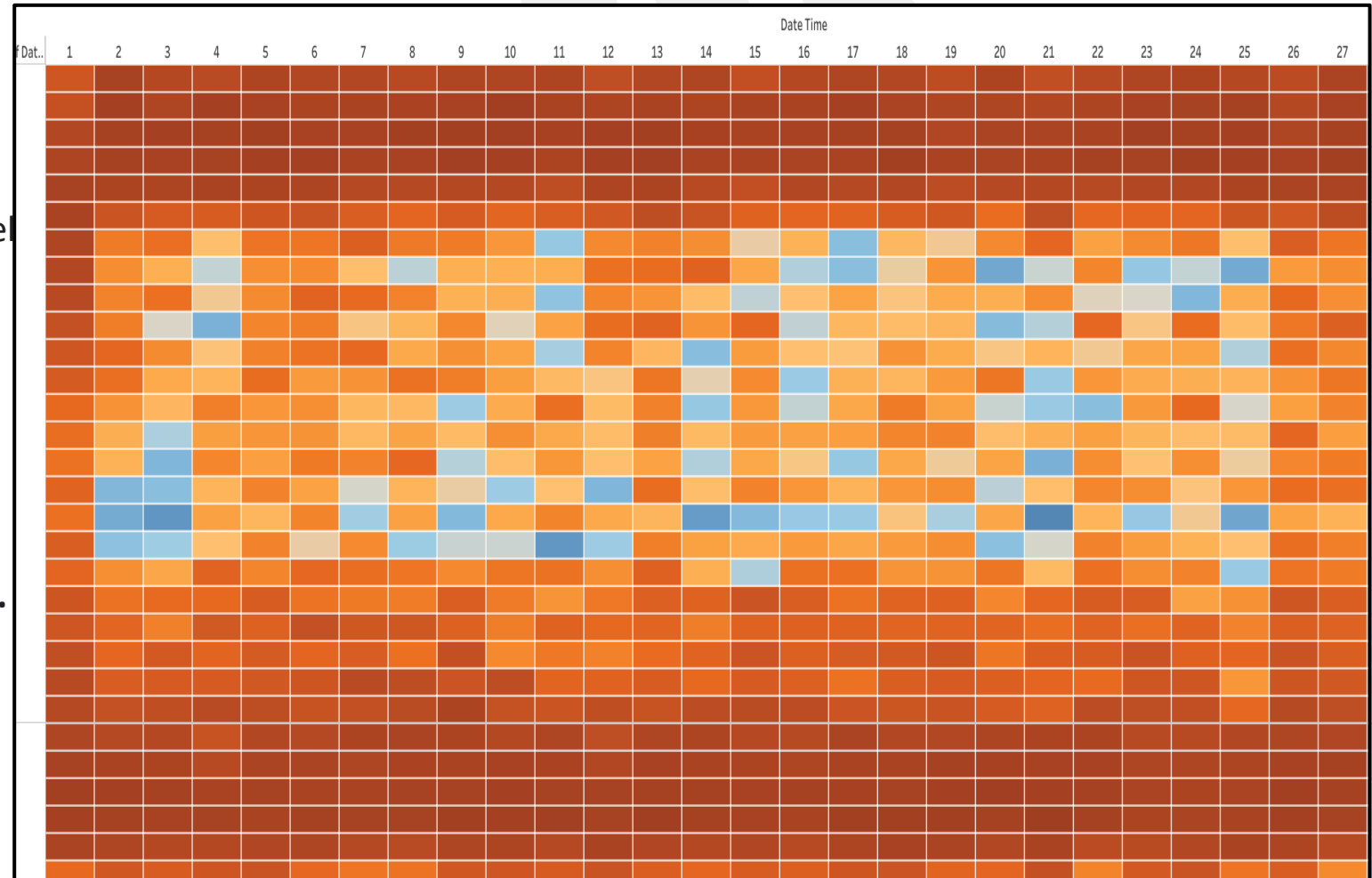


# Hourly Traffic

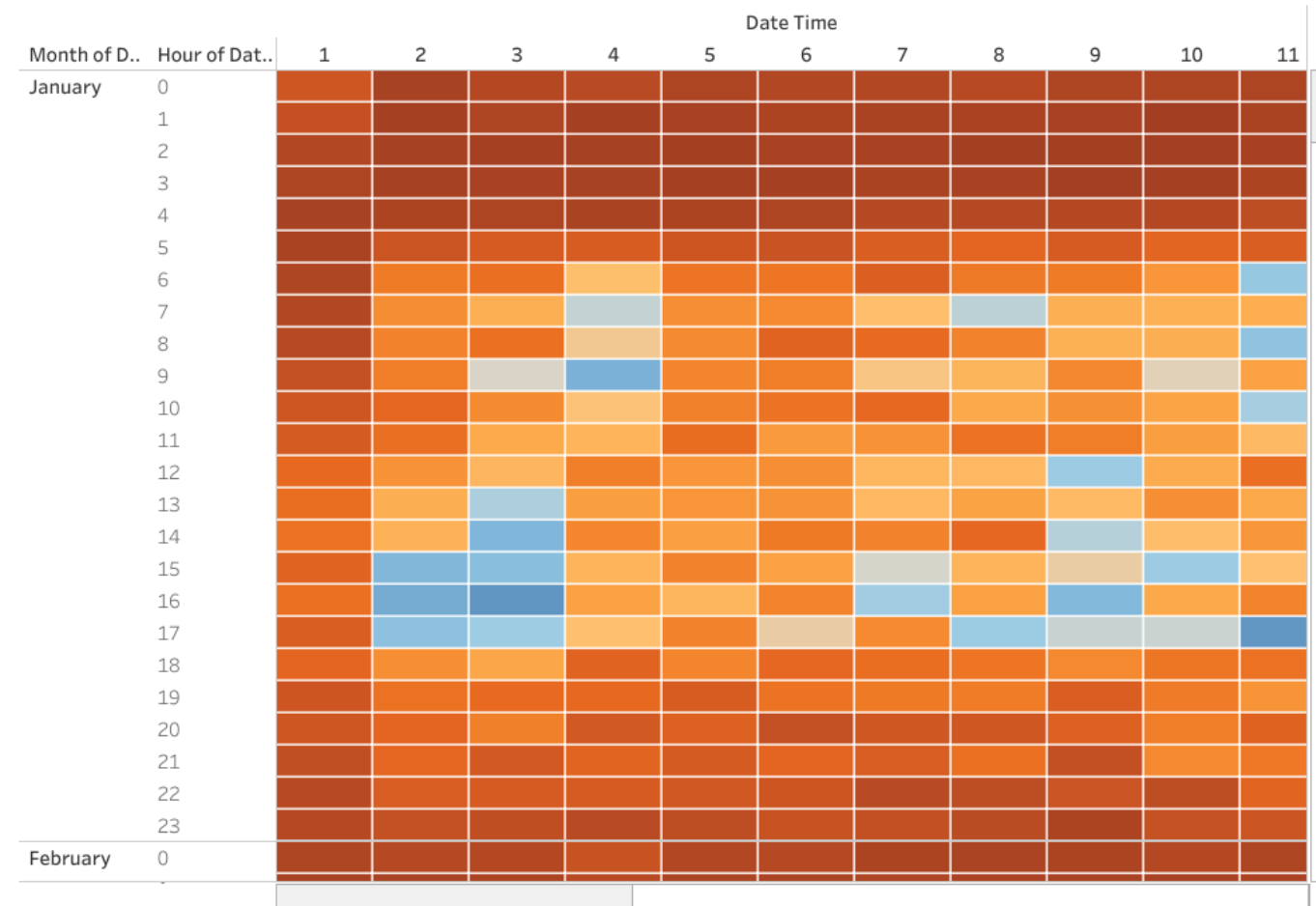
**Patterns are reflected** during the busiest travel times: rush hours to and from work.

**A day with a holiday** does not have a significantly higher or lower traffic volume throughout the day.

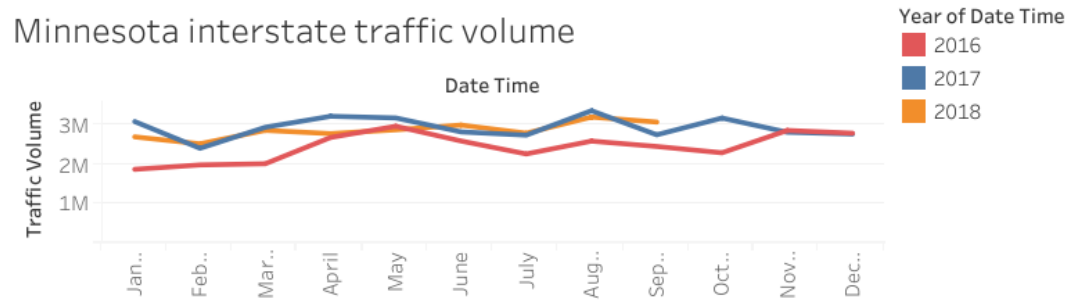
**Holidays do not impact hourly traffic volume.**



# Final Dashboard



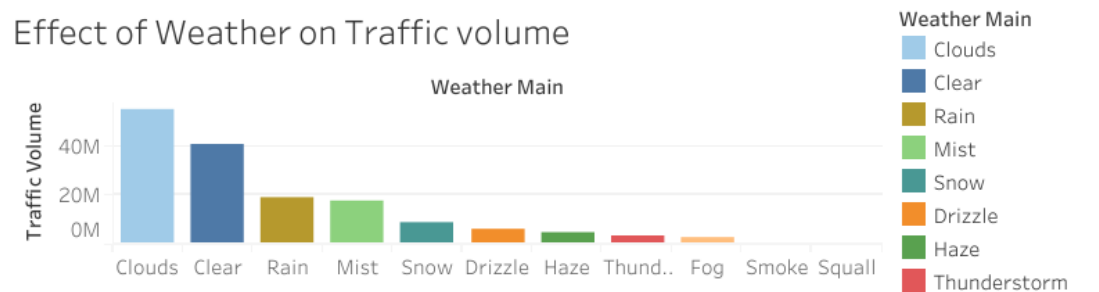
Minnesota interstate traffic volume



Holiday

- Christmas Day
- Columbus Day
- Independence Day
- Labor Day
- Martin Luther King Jr ..
- Memorial Day

Effect of Weather on Traffic volume







# THANK YOU!

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