



BORDER CROSSING DATA ANALYSIS

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INTRODUCTION

- Data collection: Kaggle and OpenWeatherMap API
- Data cleaning
- Data limitations: Time frame and Traffic Flow
- Analysis and Findings



Question 1 –

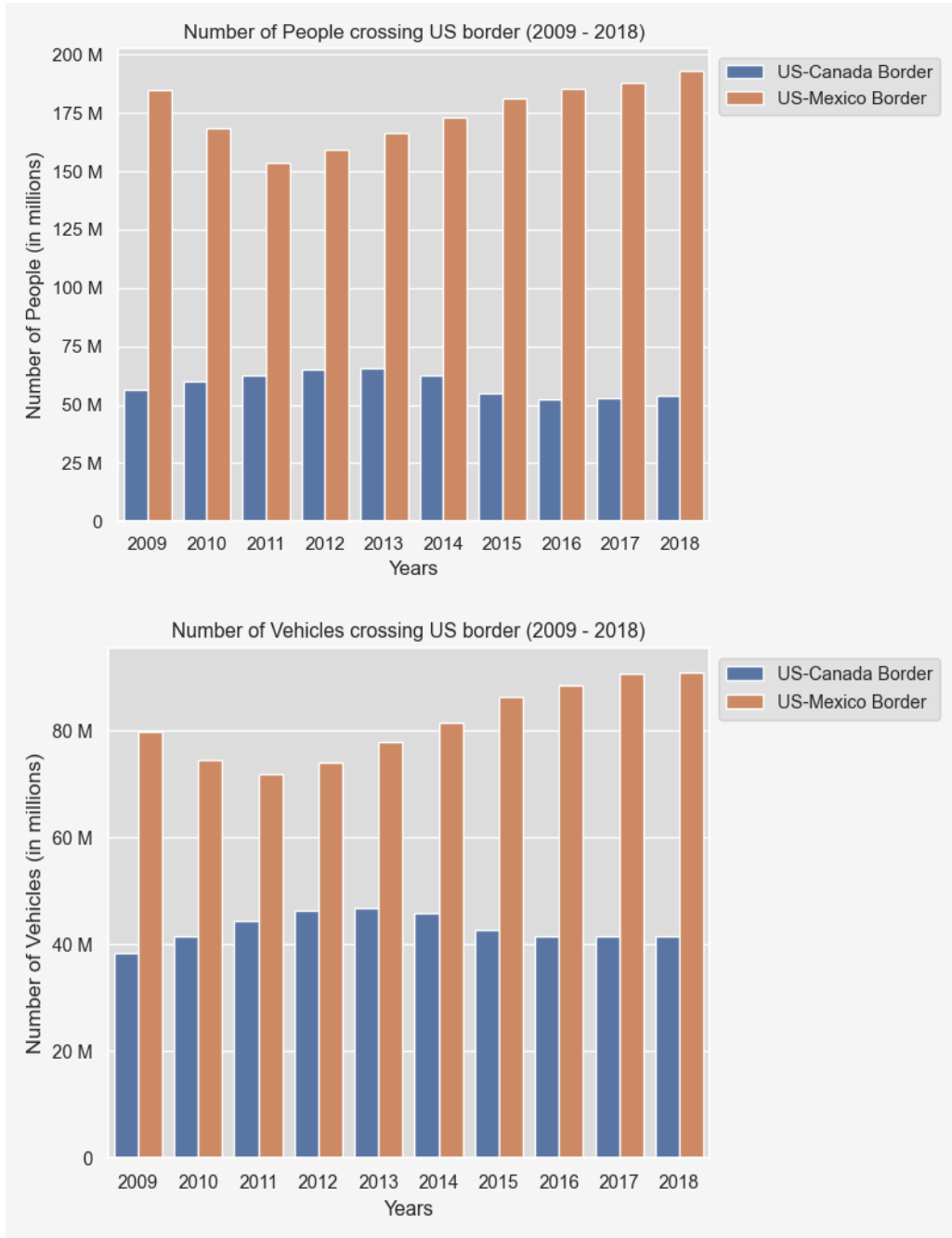
What is the busiest border in the US?



Question 1 –

What is the busiest border in the US?

- The US-Mexico border people traffic is 3 times higher than the US-Canada border
- The vehicle traffic for the US-Mexico border is 2 times higher than US-Canada border



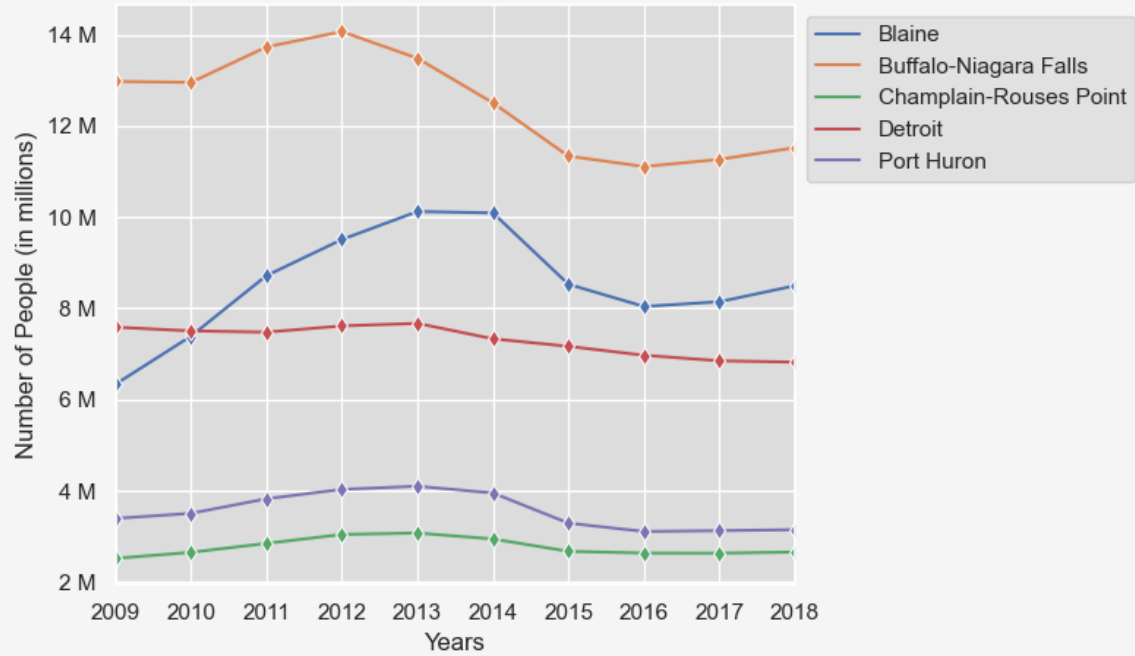
Question 2 –

What are the top 5 busiest ports along the US-Canada border?

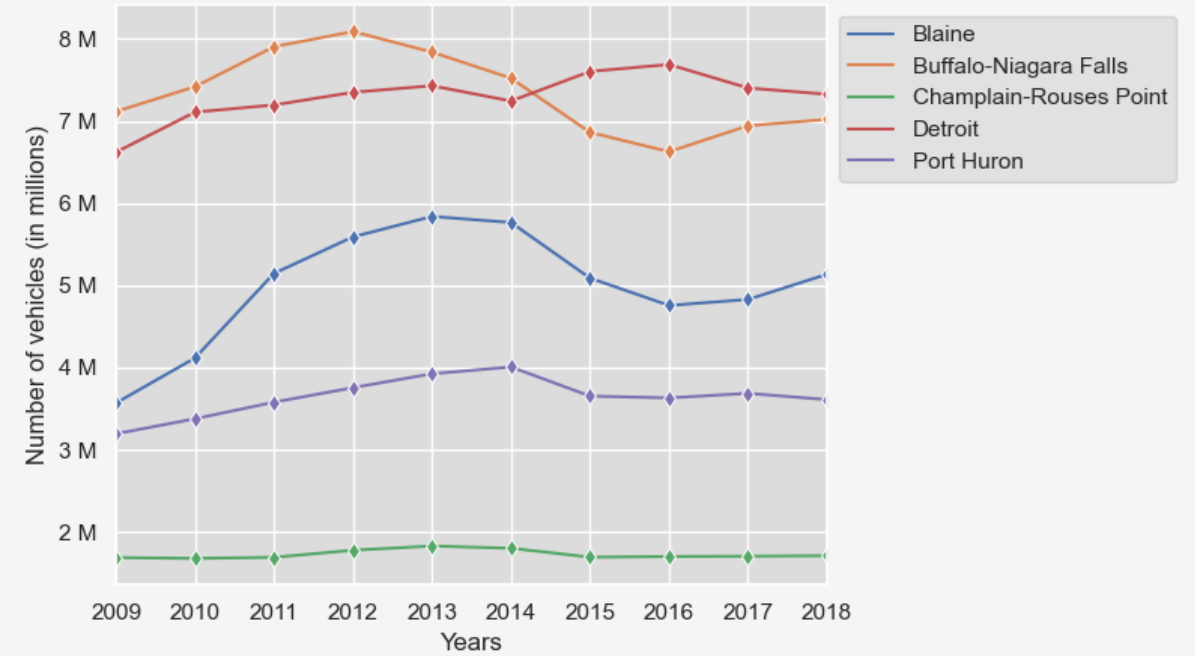


People versus Vehicle traffic by port for US-Canada border

Top 5 Ports between US-Canada border (2009 - 2018) by Average People Traffic



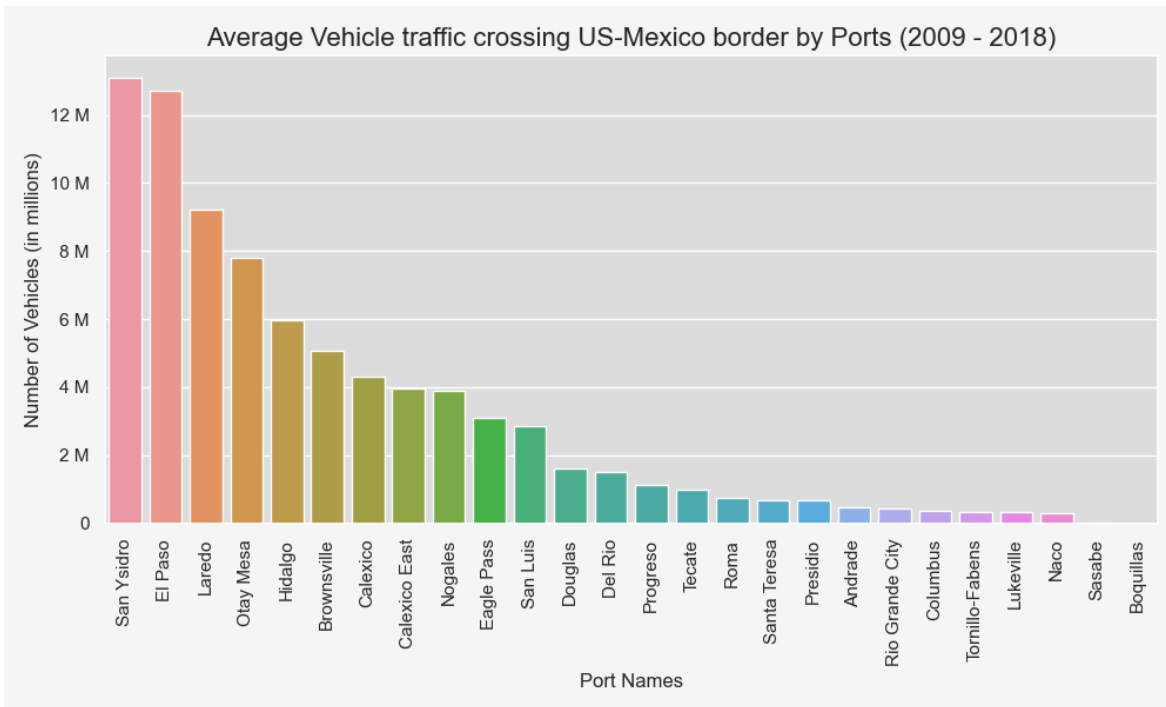
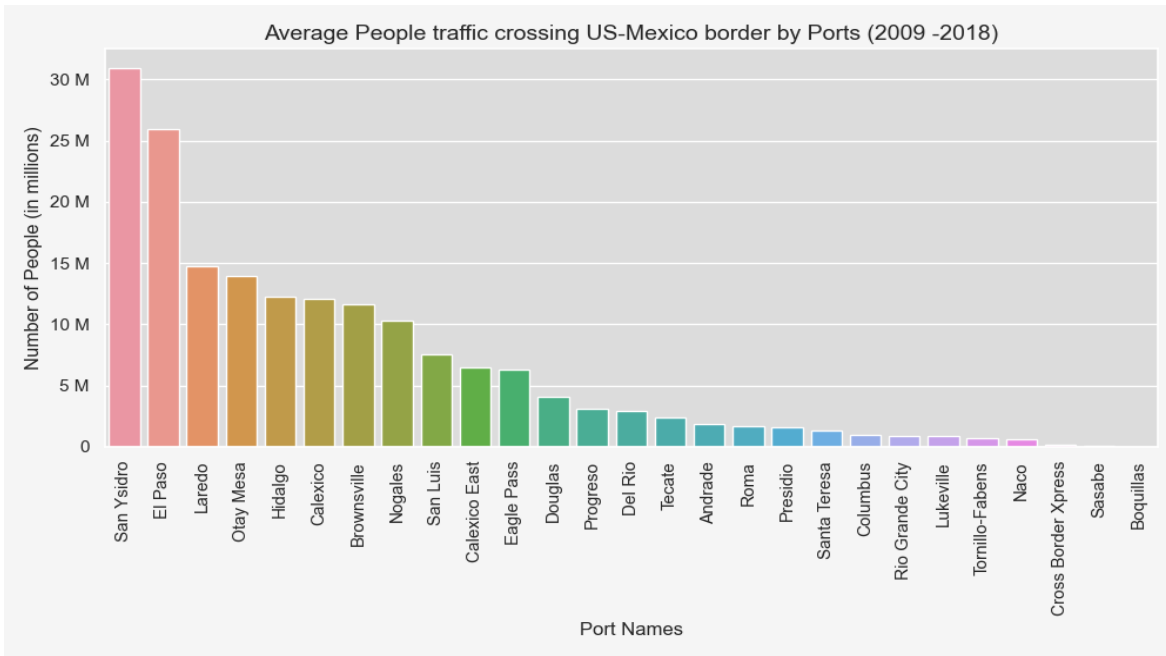
Top 5 Ports between US-Canada border (2009 - 2018) by Average Vehicle traffic



Question 3 –

What are the top 5 busiest ports along the US-Mexico border?



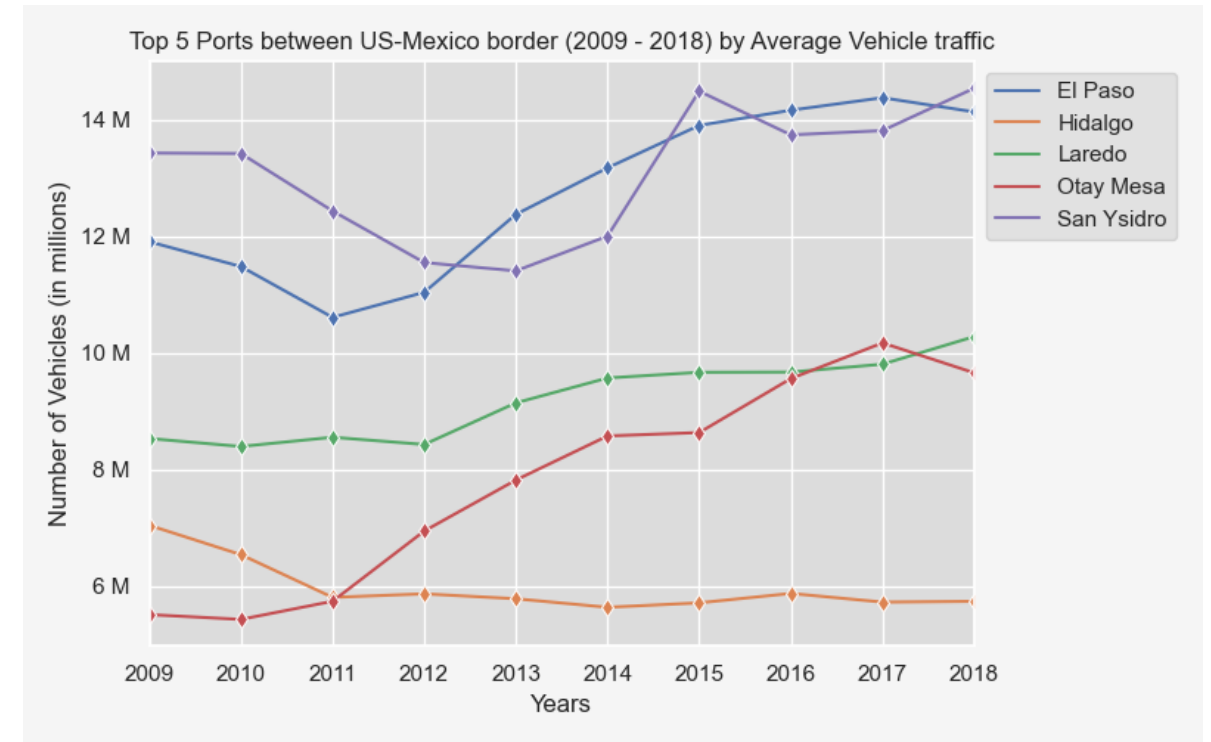
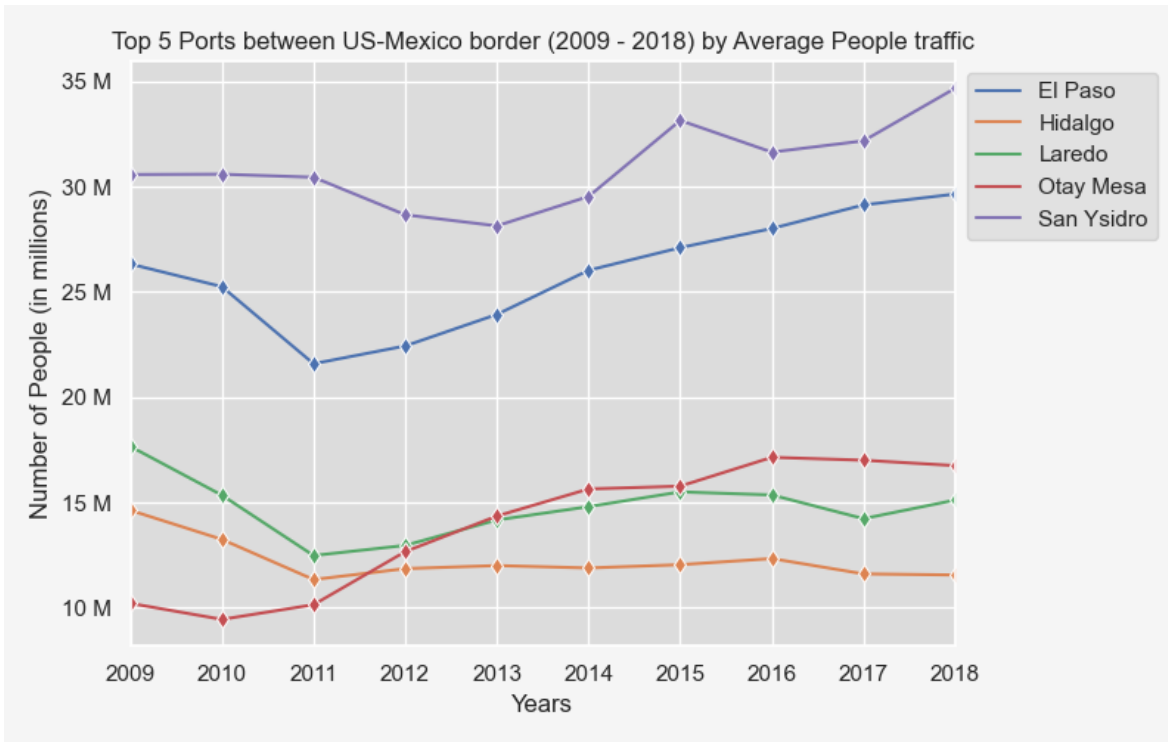


Question 3 –

Which are the top 5 busiest ports along the US-Mexico border?

Top 5 busiest ports

1. San Ysidro
2. El Paso
3. Laredo
4. Otay Mesa
5. Hidalgo



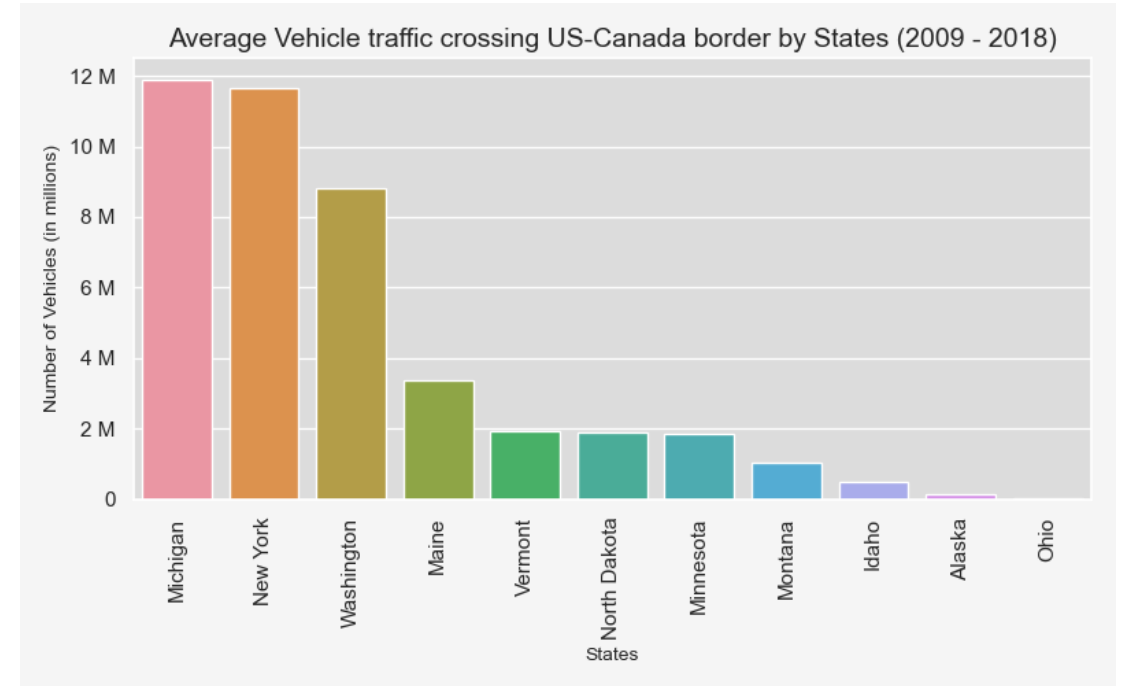
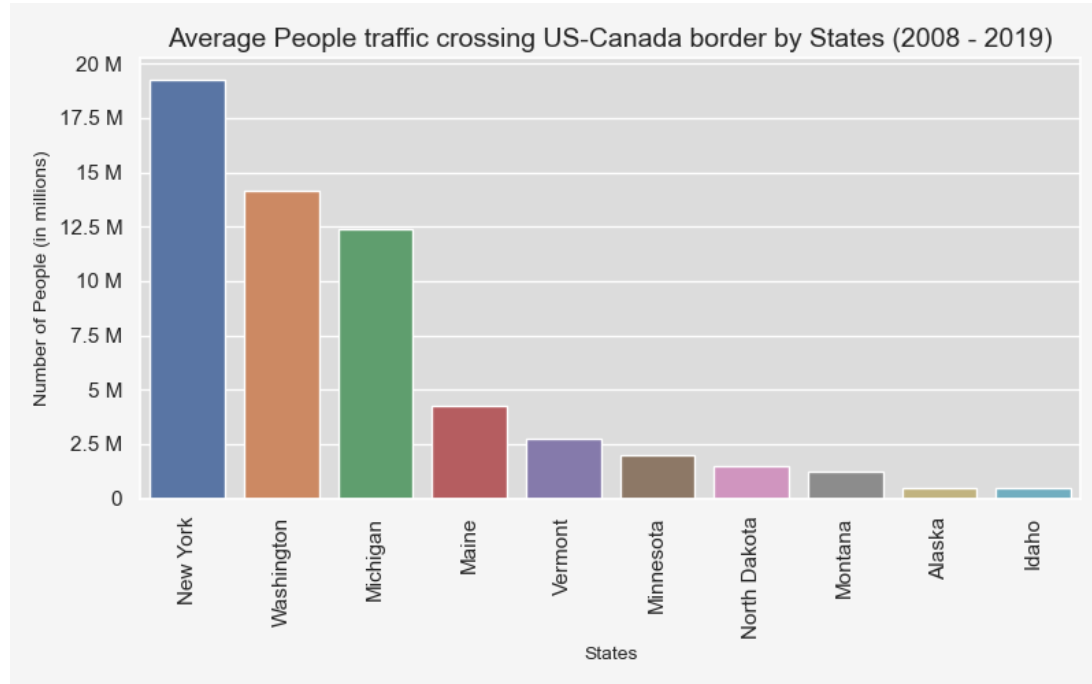
- El Paso and San Ysidro remain the most popular ports to cross along the US - Mexico border
- From 2011 onward, there is an upward trend in inbound crossings at all the ports with the exception of Hidalgo

Question 4 –

What are the top 3
busiest states along
the US-Canada
border?



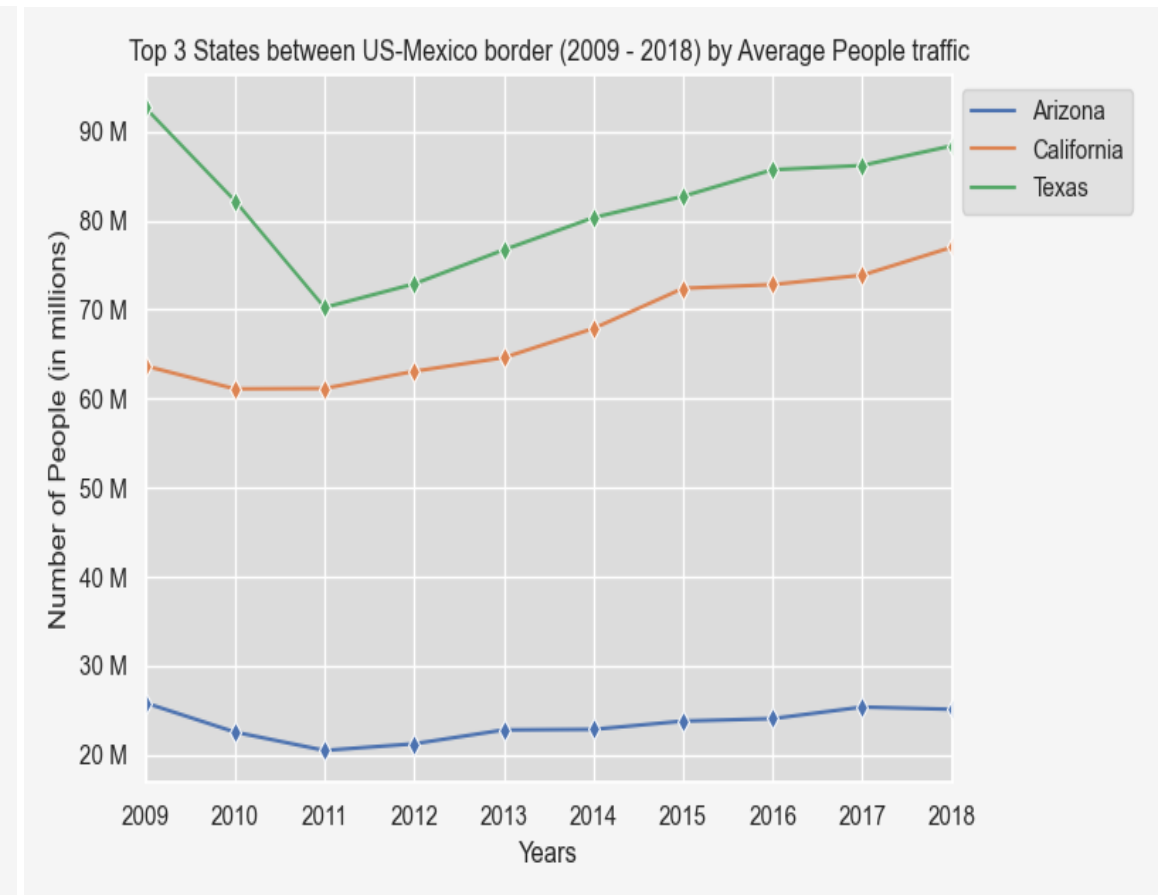
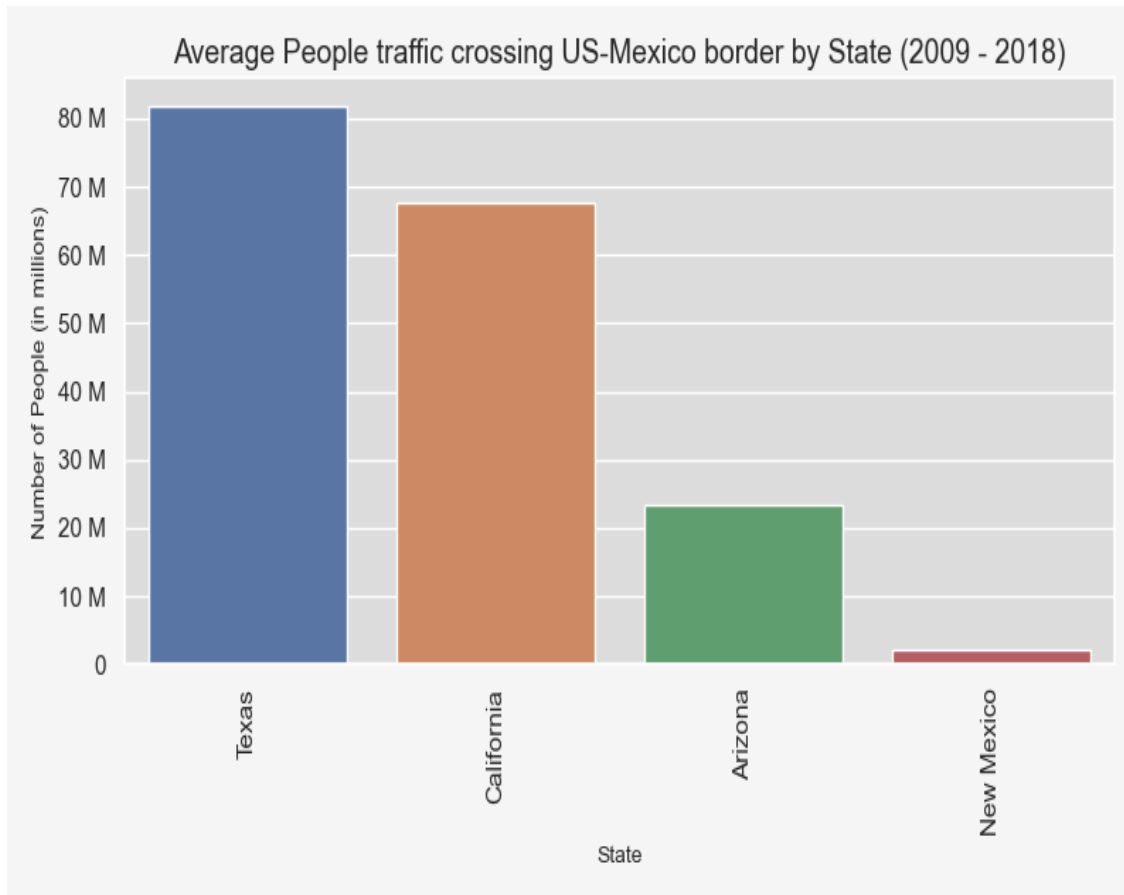
Top three busiest states between US and Canada



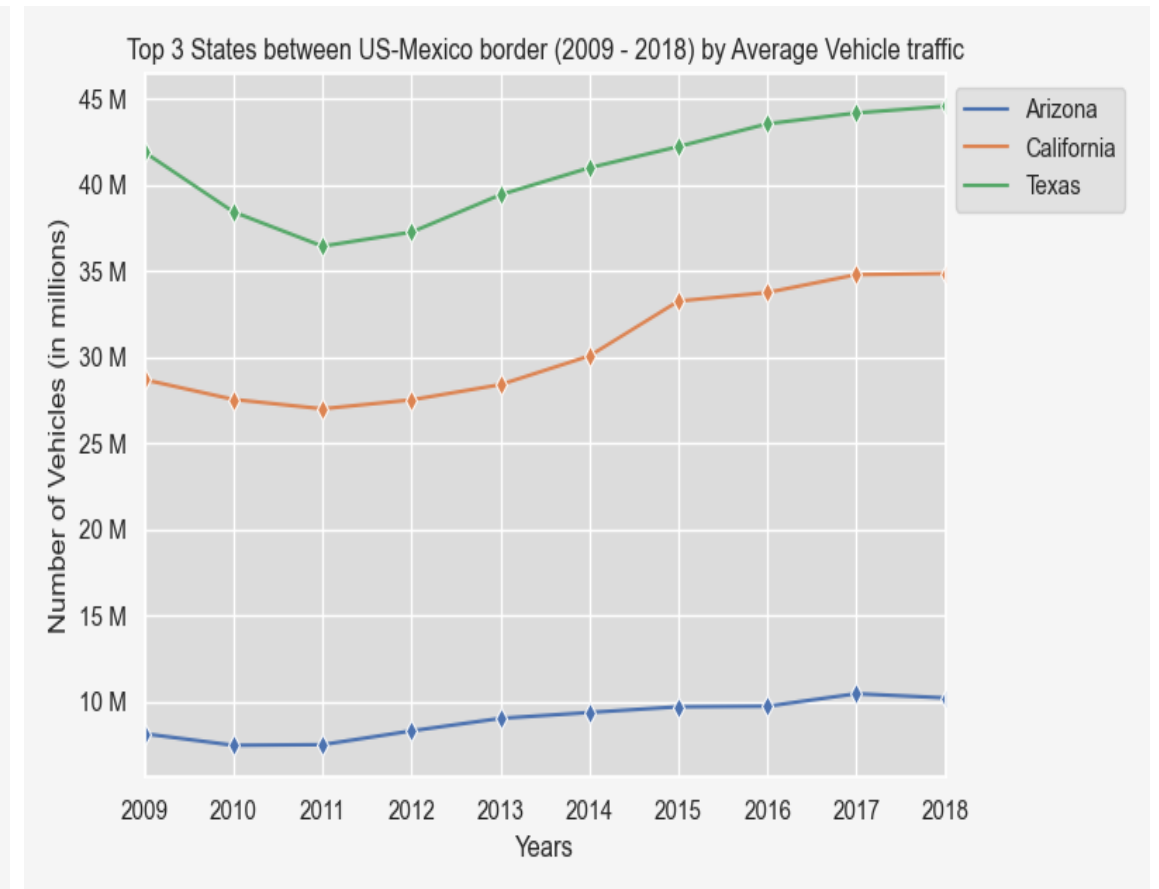
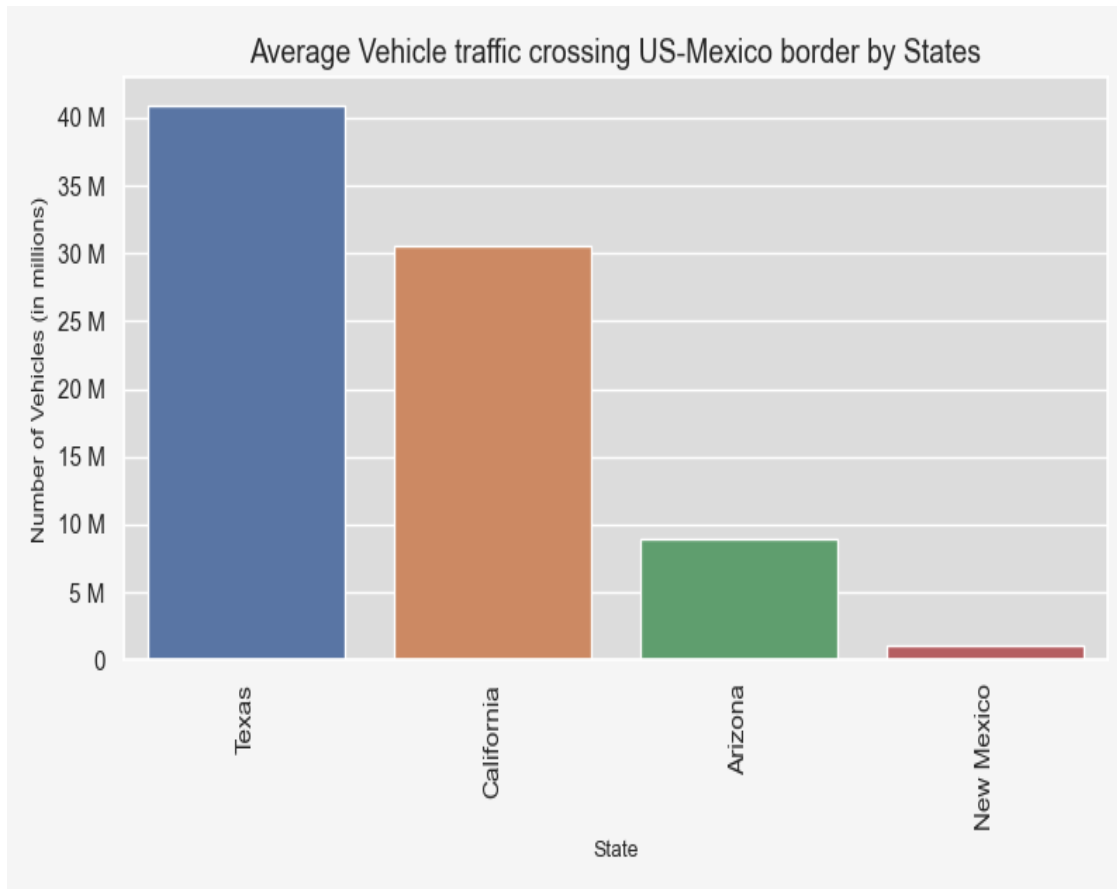
Question 5 –

What are the top 3 busiest states along US-Mexico border?





- More than 80 million people crossed the border on average into the US from Texas
 - Texas remains the most active state in regards to border crossings



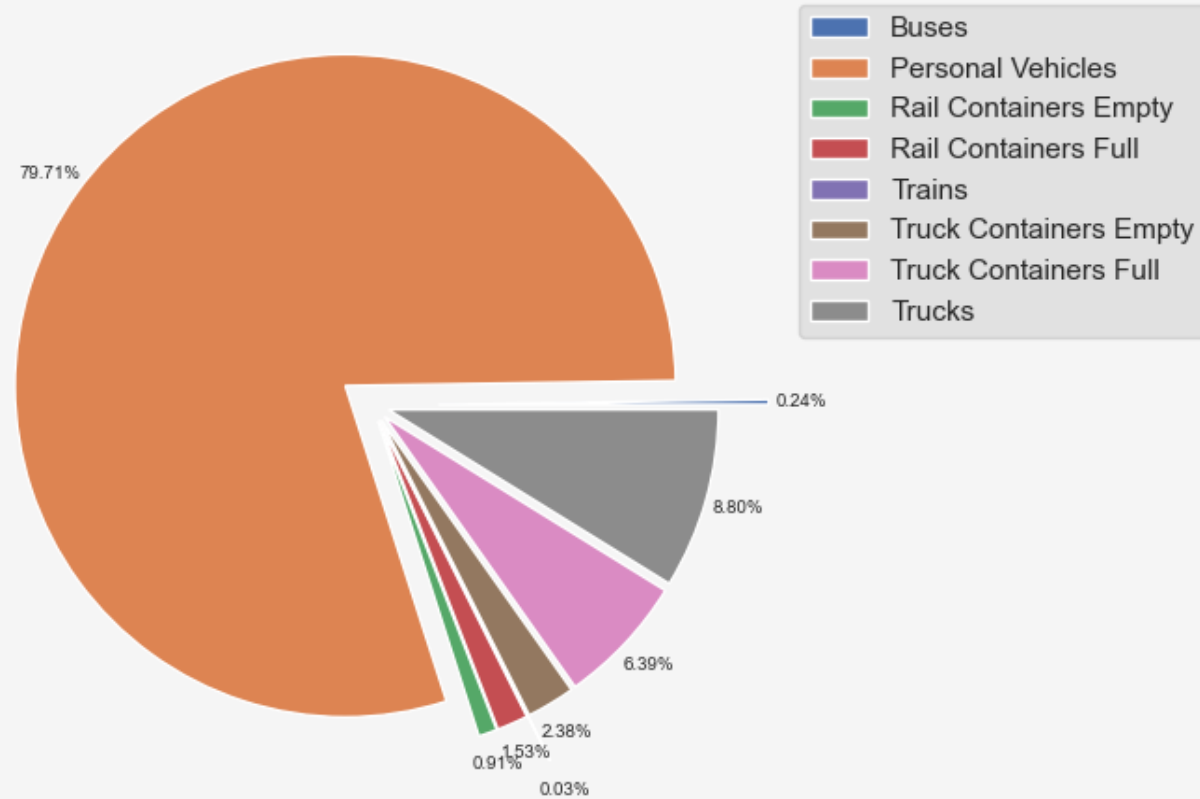
- More than 40 million vehicles crossed the border on average into the US from Texas
 - Texas remains the most active state in regards to border crossings



Question 6 –

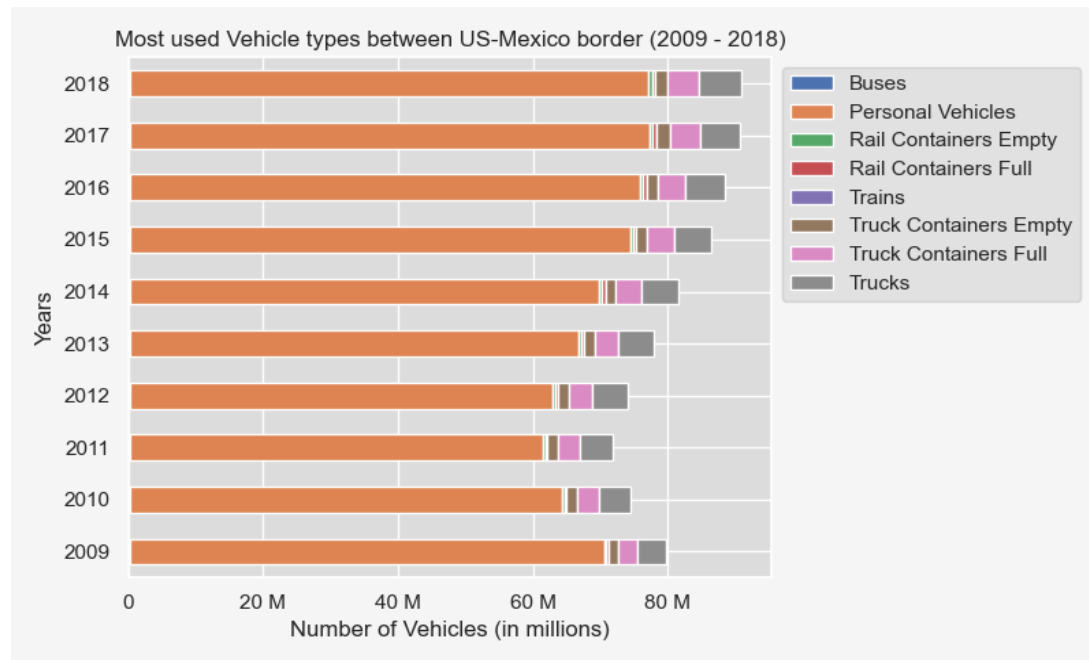
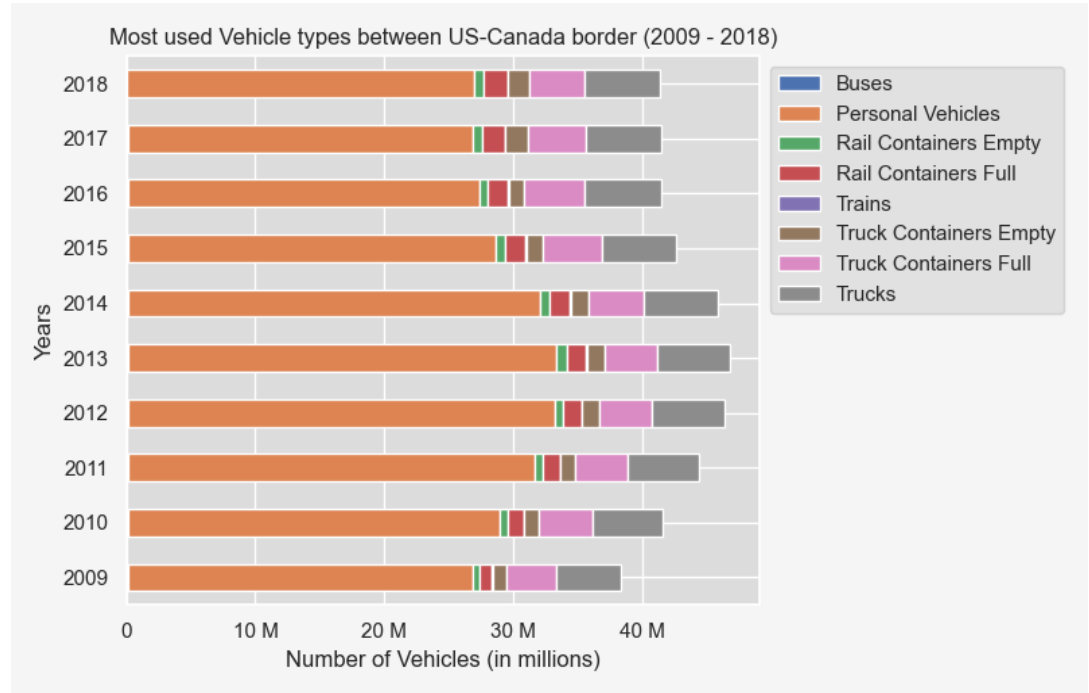
Which vehicle types are used the most?

Most used Vehicle types on average between 2009 to 2018 across all US borders



- Personal vehicles represent 79.7% of the vehicle volume across the 10 years

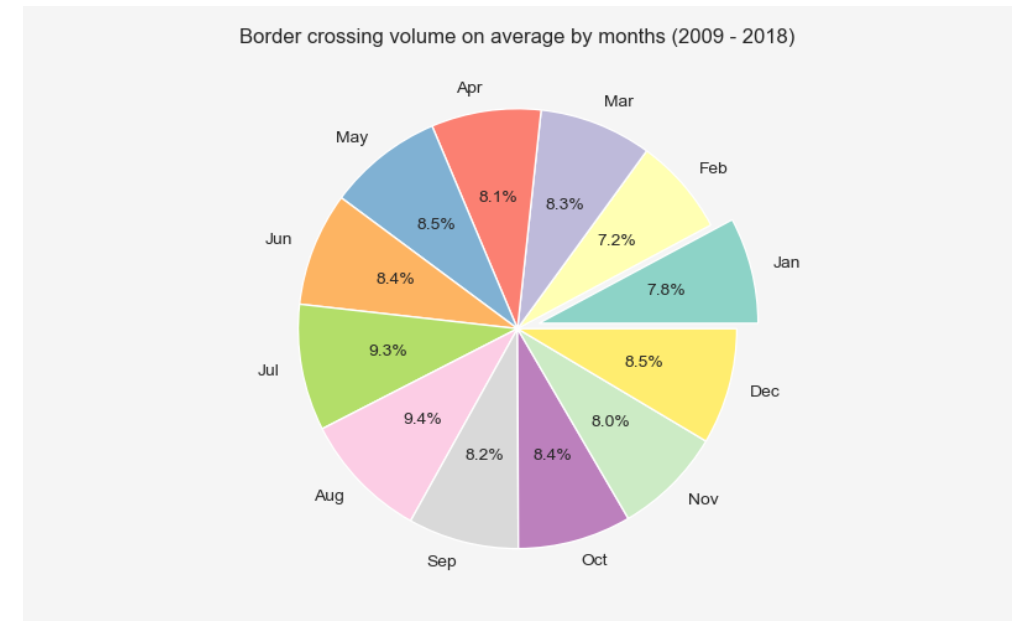
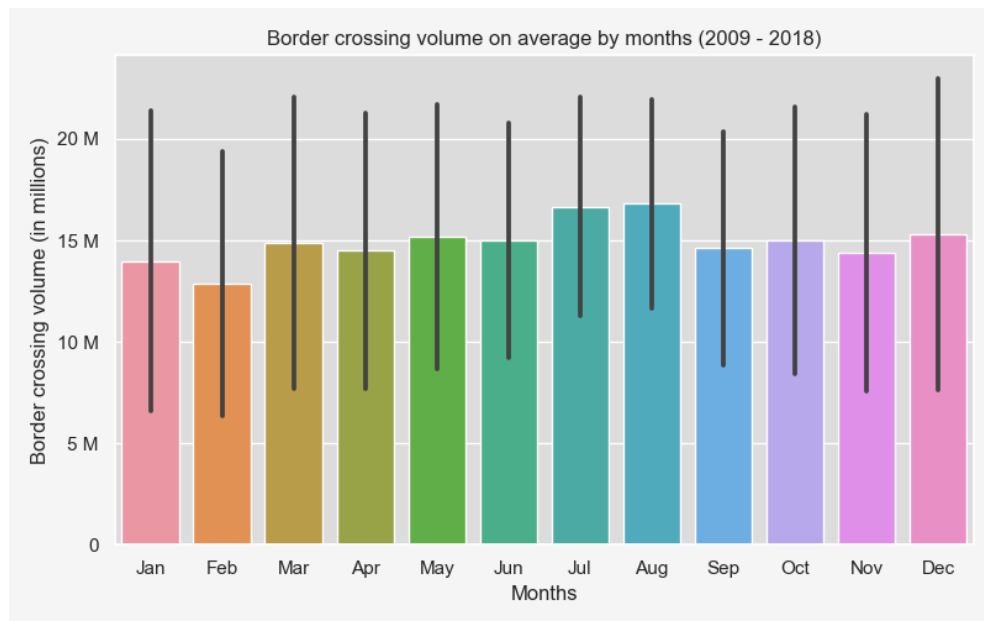
Vehicle Usage

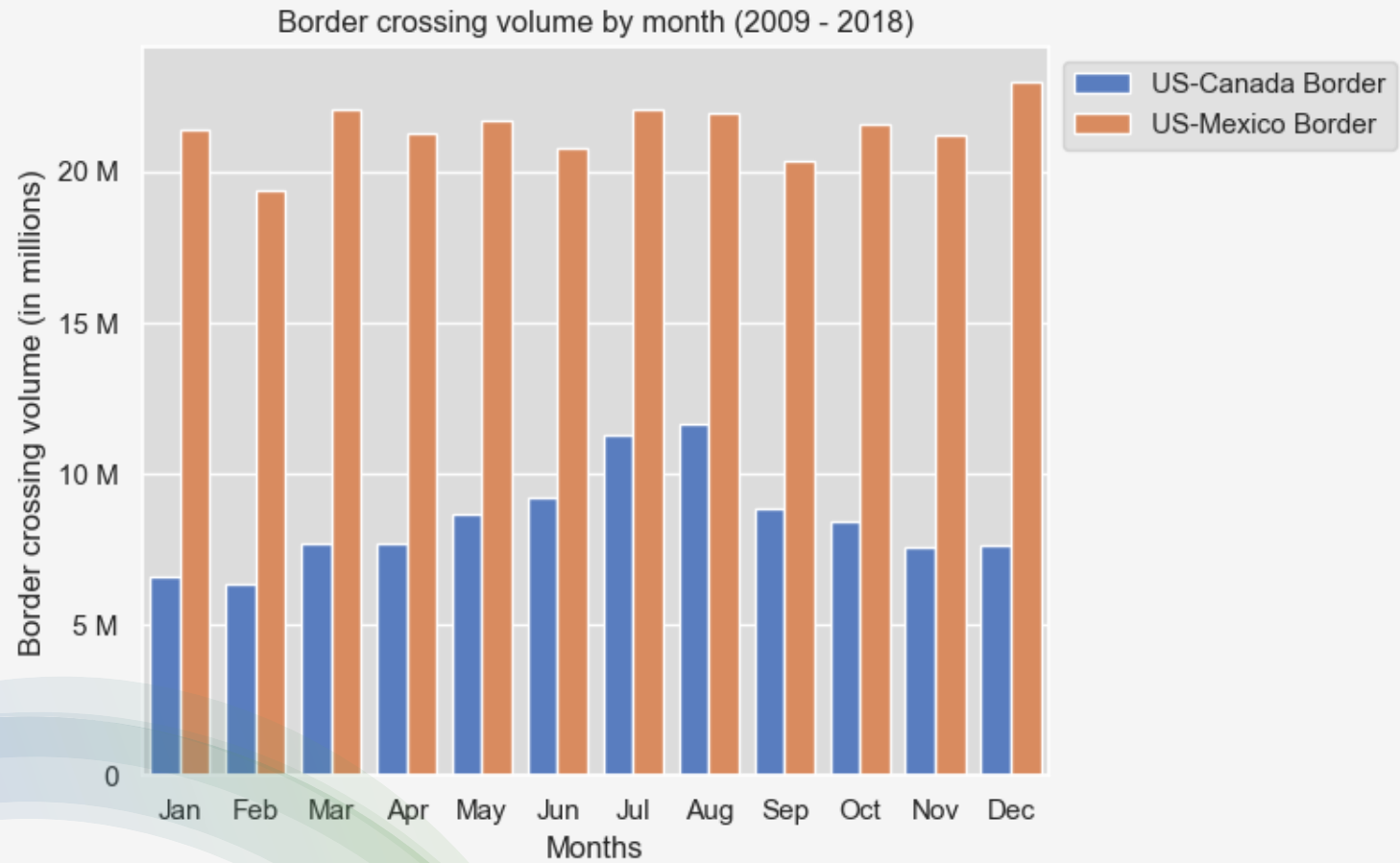


Question 7 –

Which months are the busiest at the US borders?

- July (9.3%) and August (9.4%) are the busier months of the year
- February (7.2%) and January (7.8%) are the slower months of the year

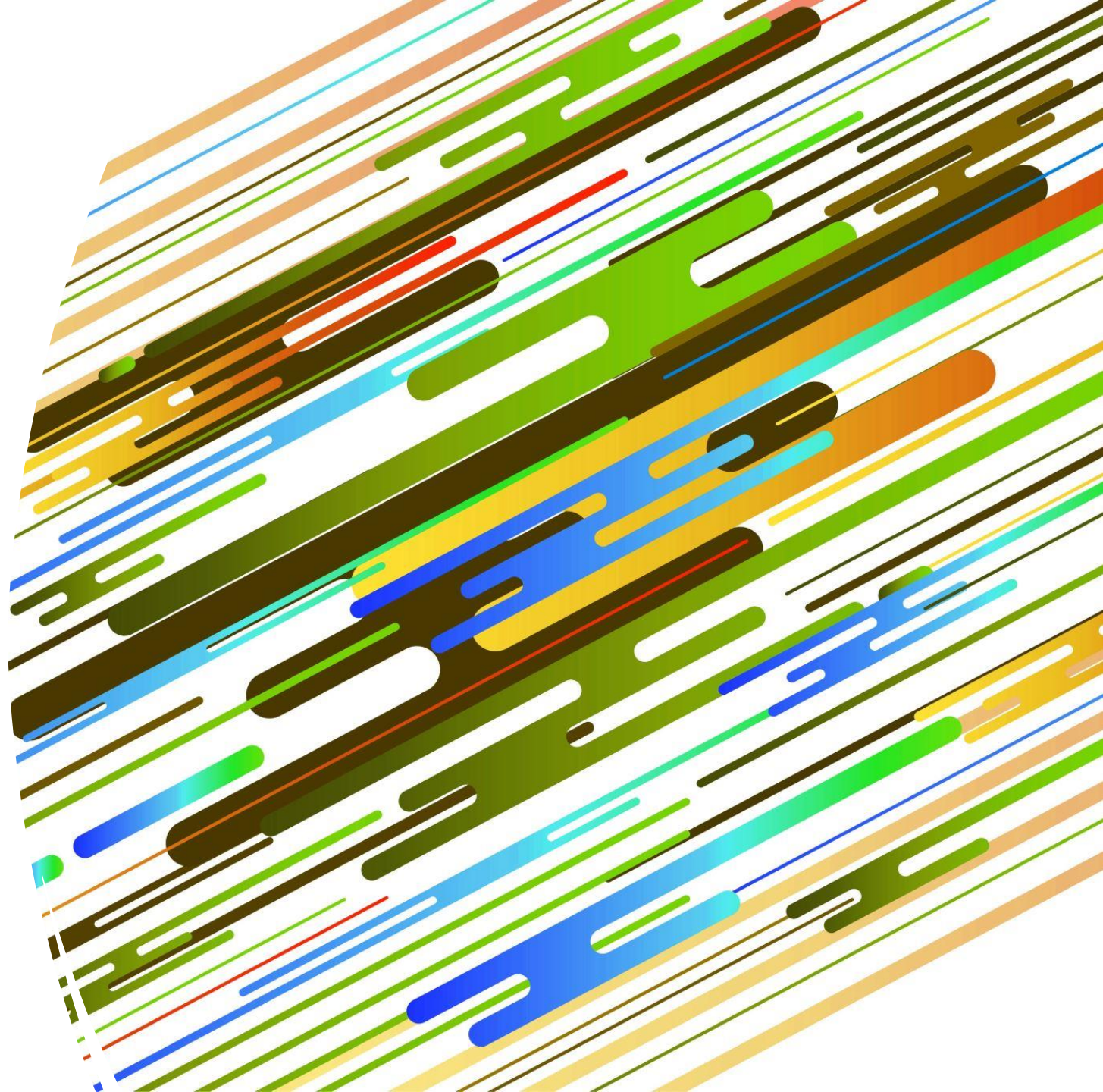


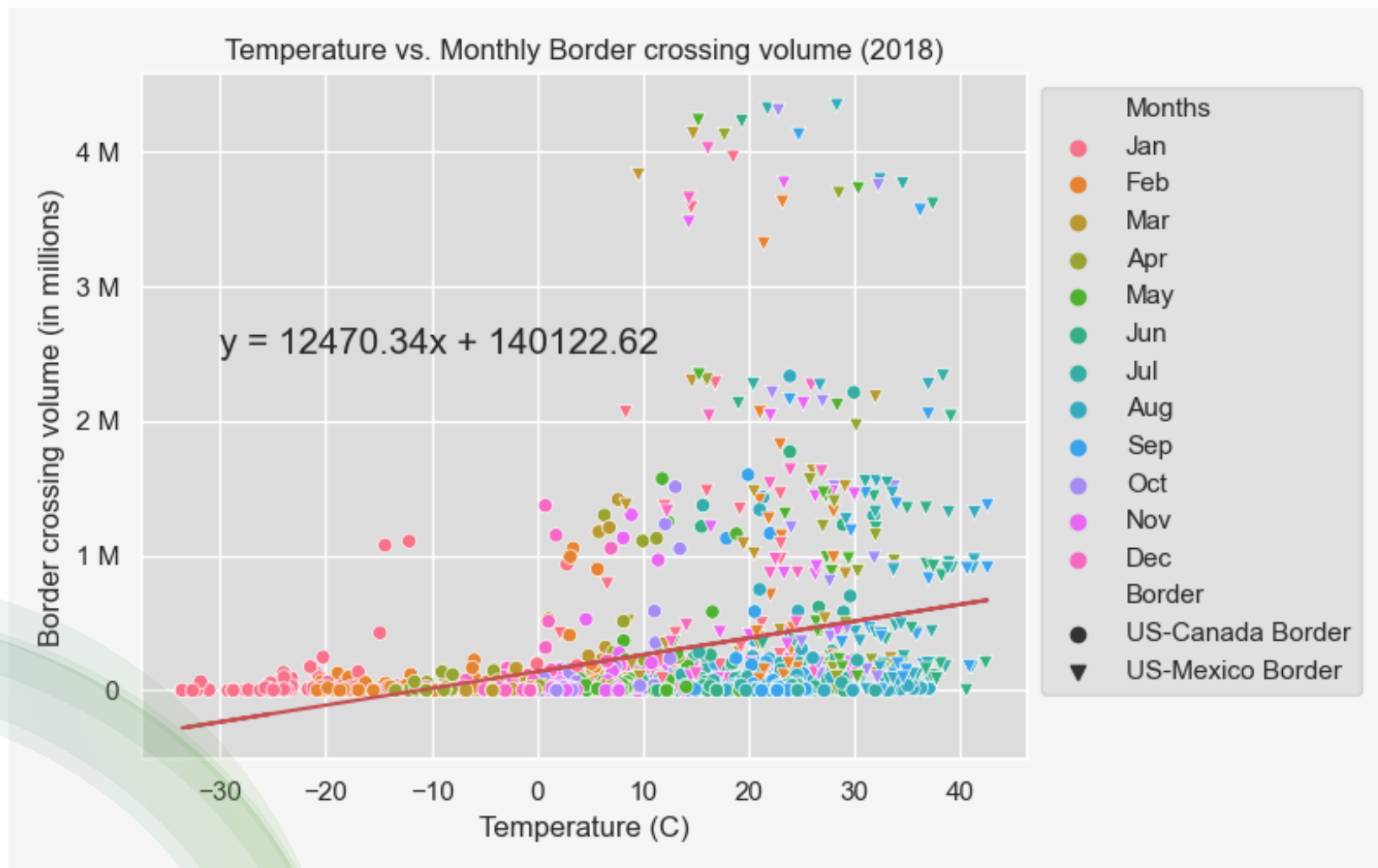


- More traffic in the summer (US - Canada)

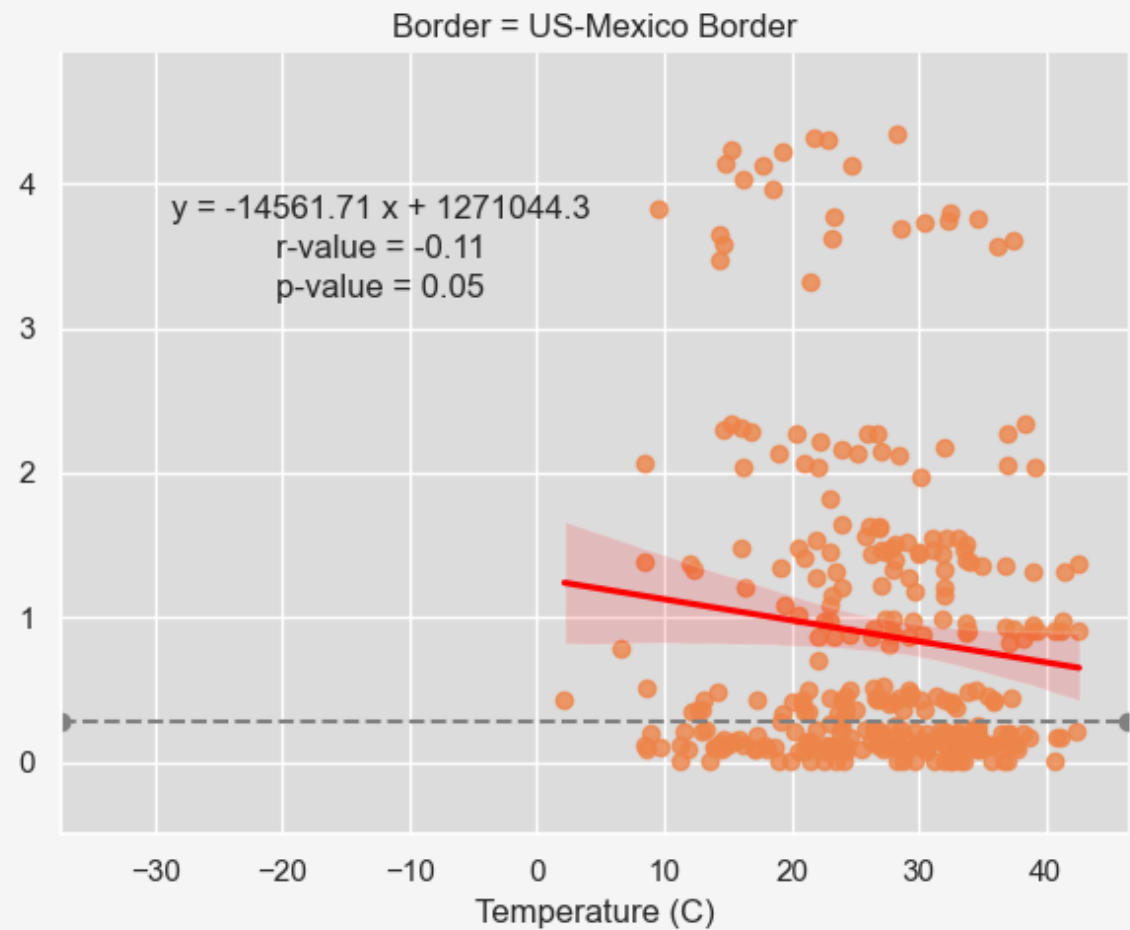
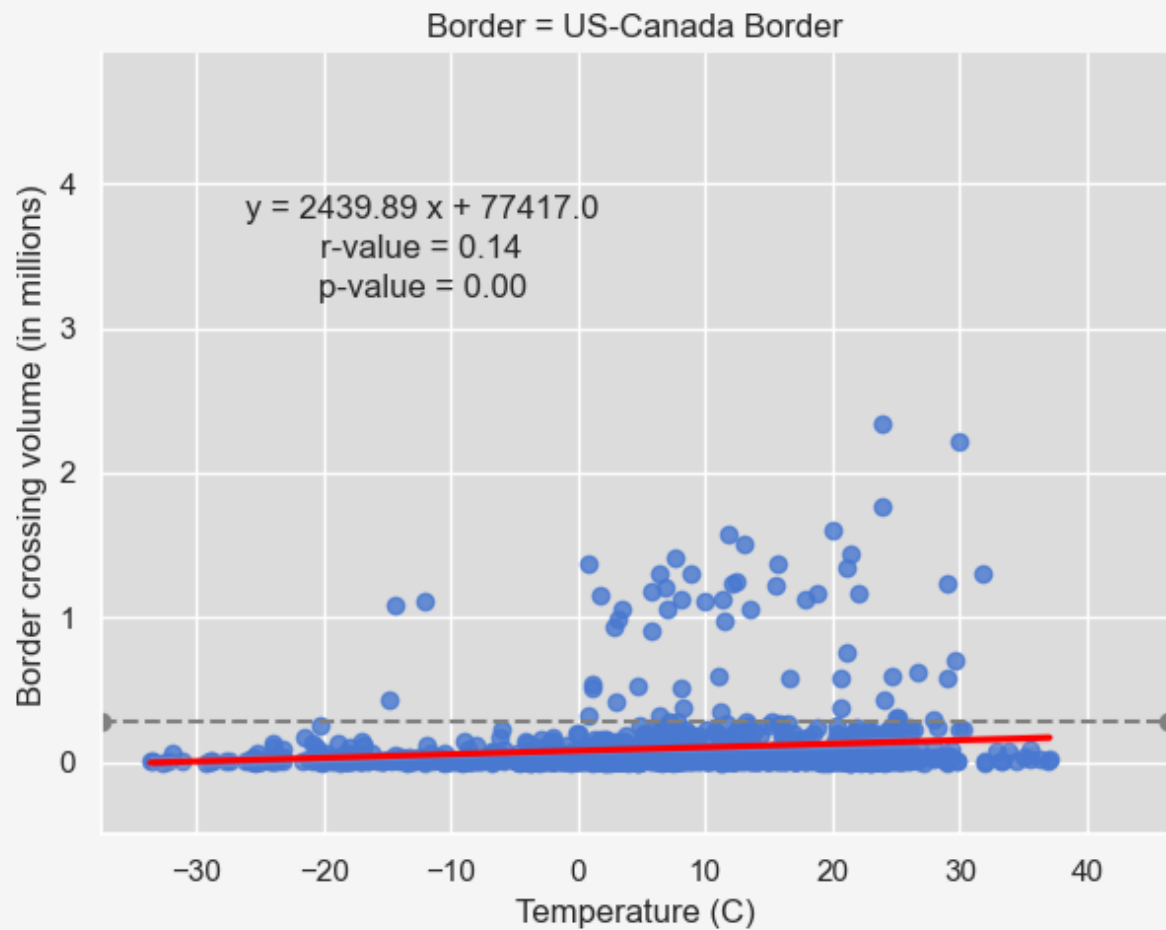
Question 8 -

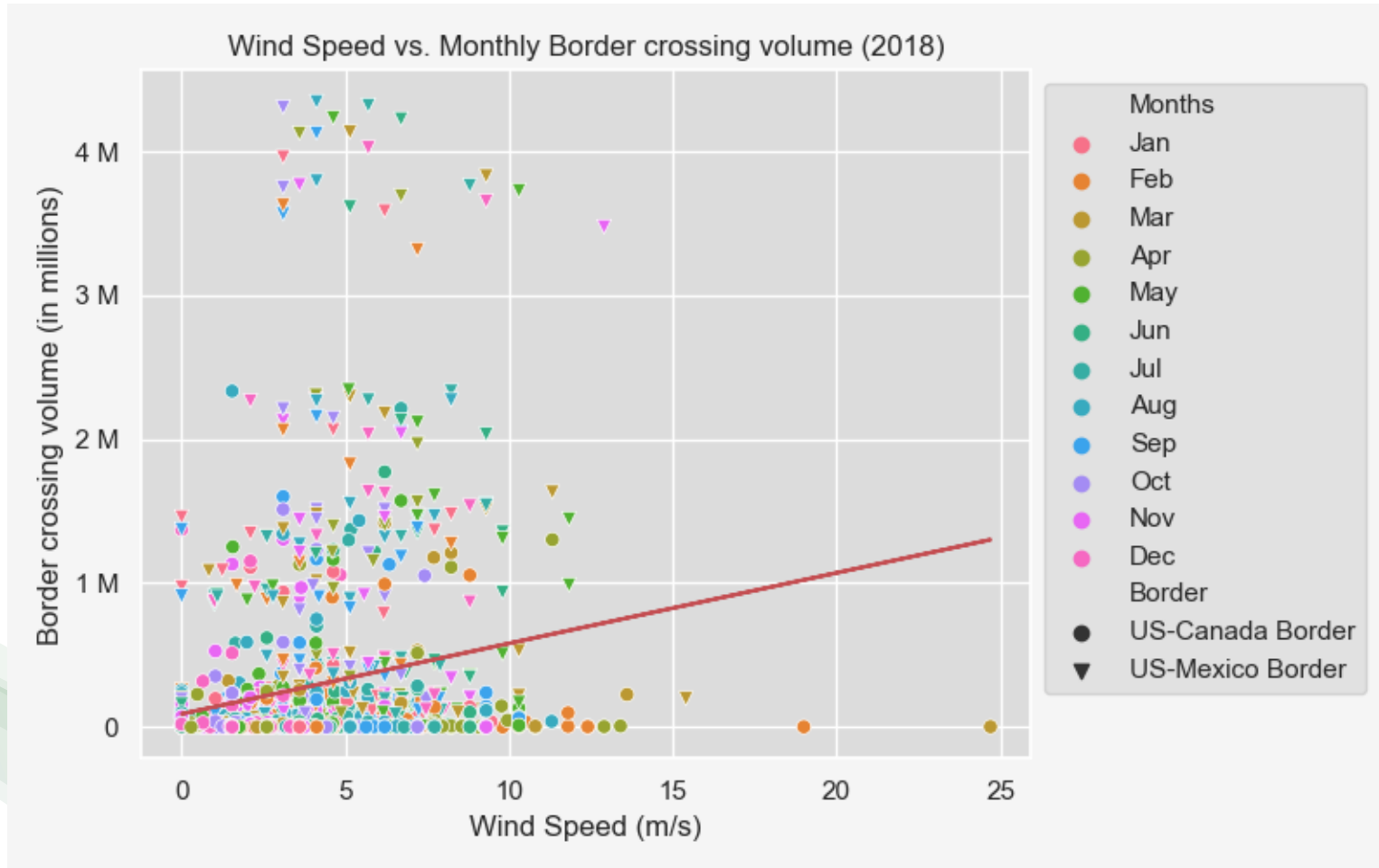
Do weather conditions impact the border crossing traffic volume?



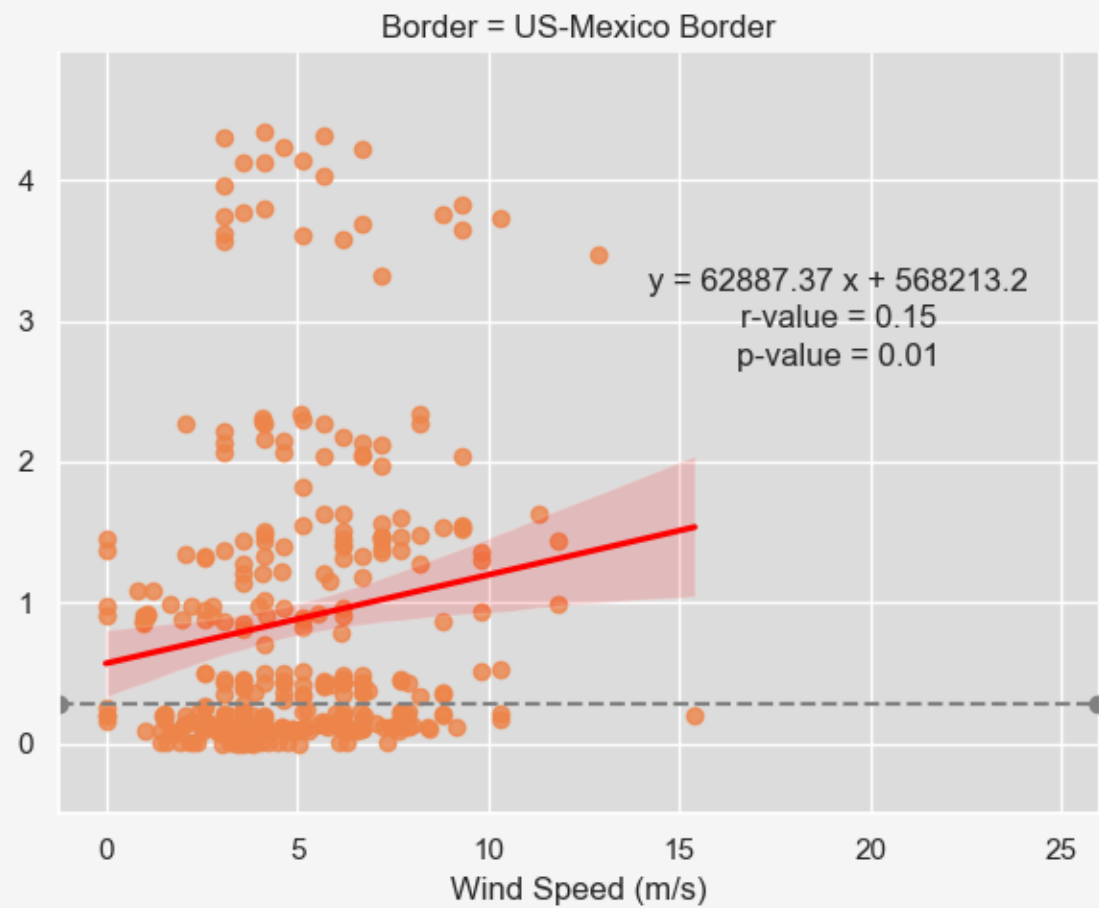
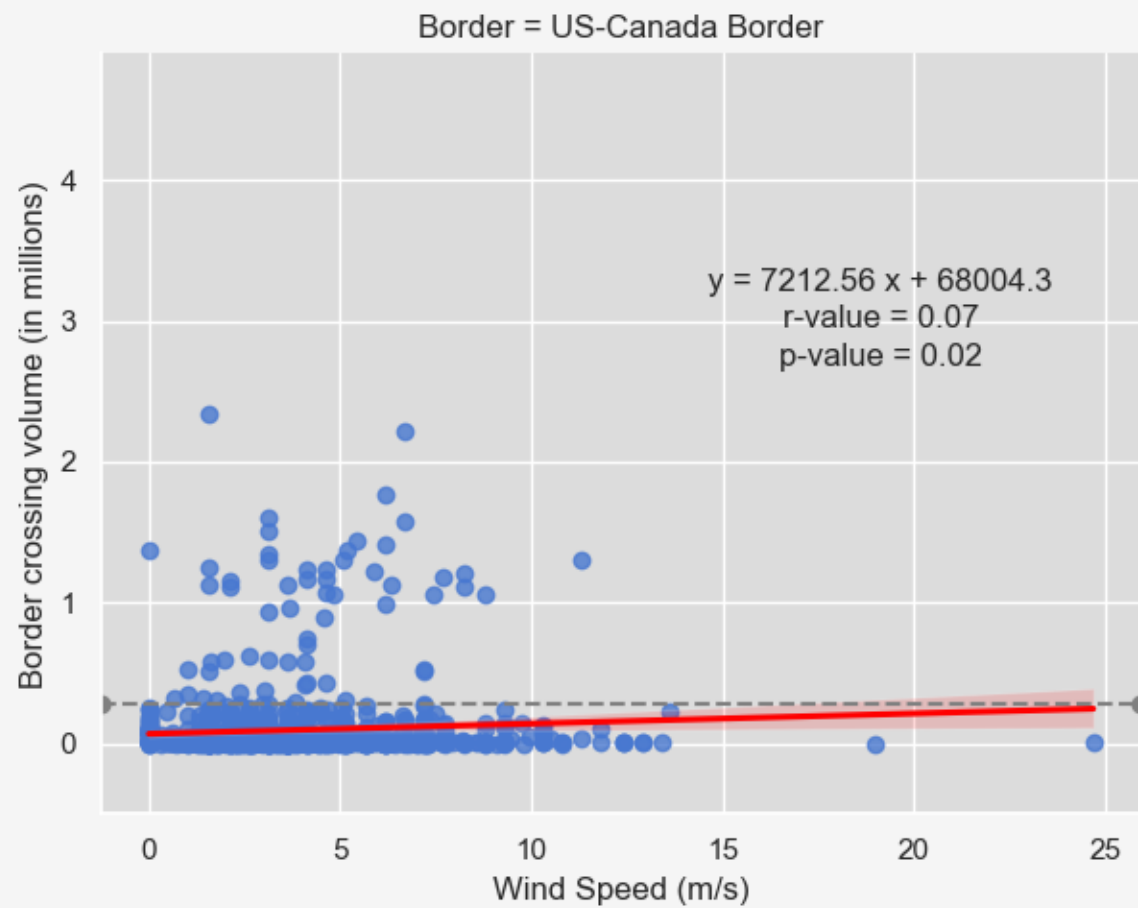


r-value = 0.2943



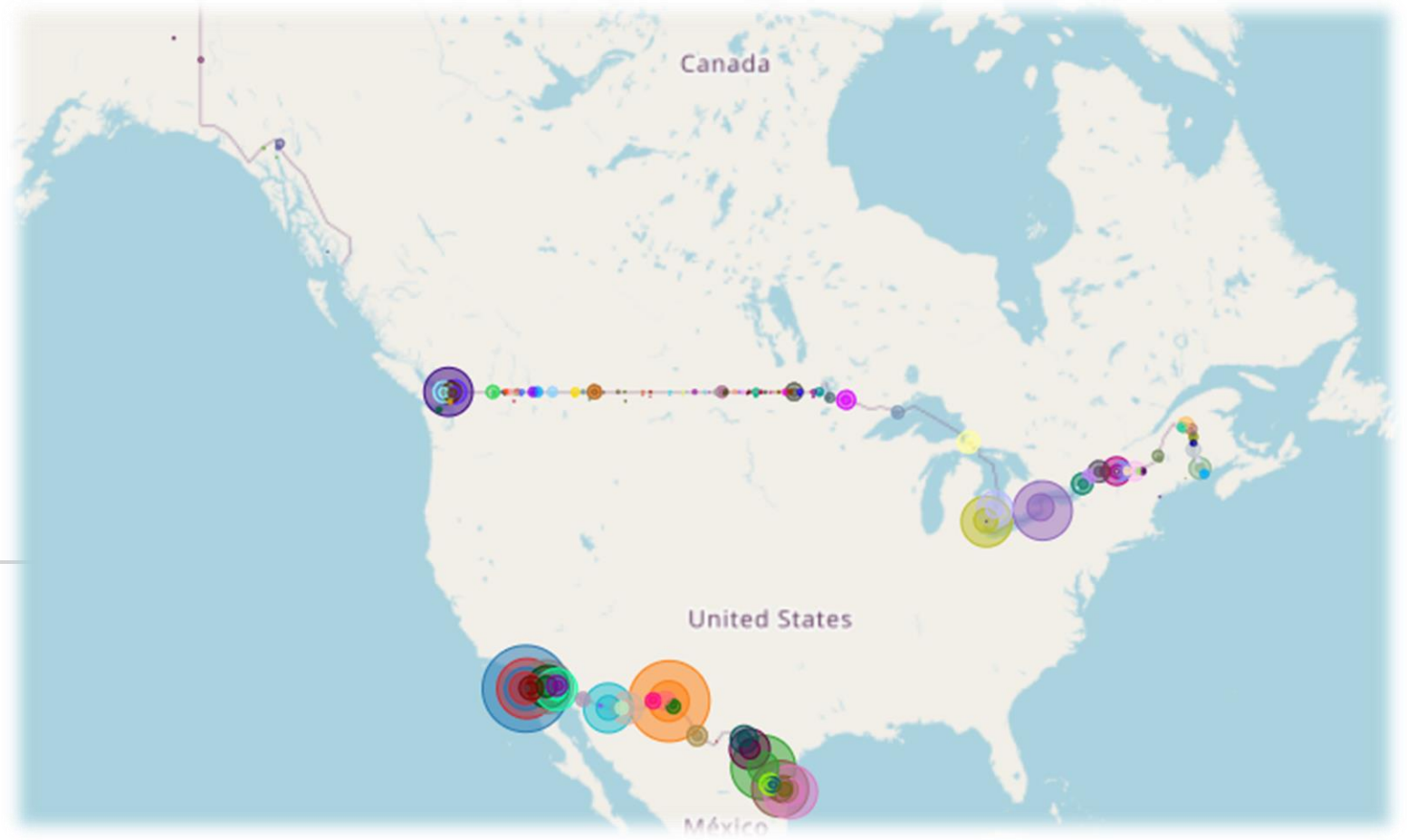


$r\text{-value} = 0.1953$





Conclusion





Q&A