MEMORANDUM

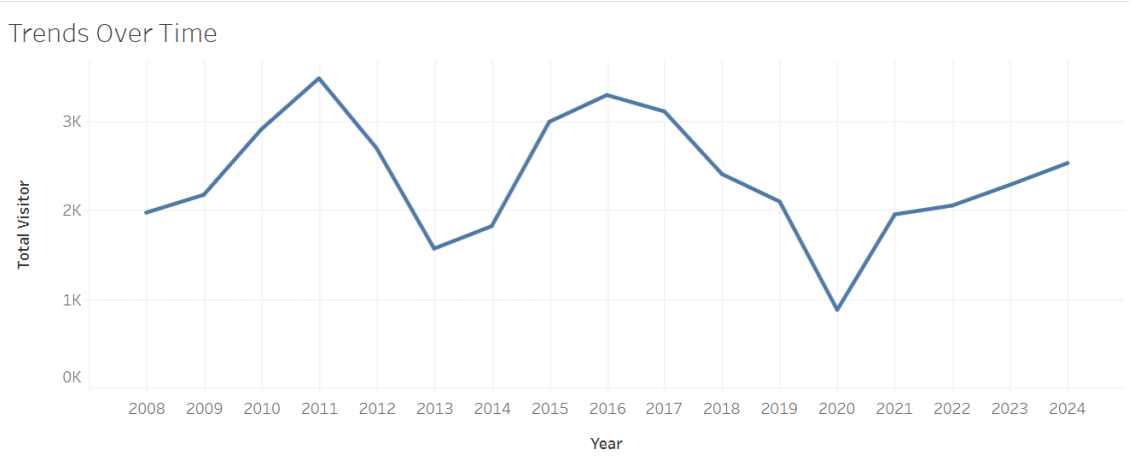
To: Professor Jeffrey A. Shaffer
From: Jyostna Sree Somisetty
Date: March 29, 2025
Subject: Analysis of Halloween Trick-or-Treat Trends (2008-2024)

Introduction

This memo summarizes an analysis of Halloween trick-or-treat data from 2008 to 2024, based on the dataset originally compiled by Professor Jeffrey A. Shaffer. This analysis aimed to identify trends and patterns in trick-or-treat participation, considering factors such as time of day, temperature, and day of the week. The data was processed and visualized using Tableau Online to provide insights suitable for a broad audience.

Findings of our analysis

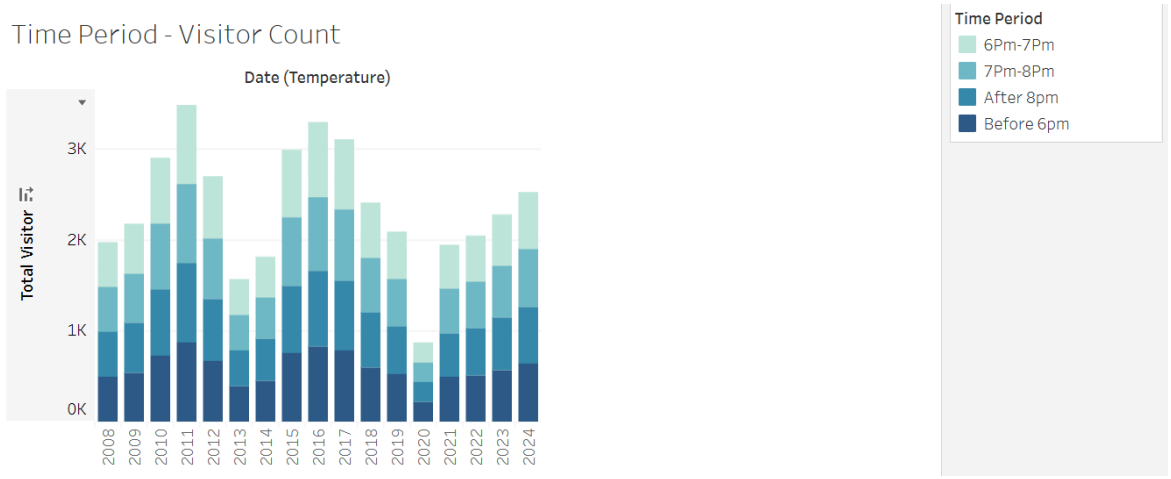
1. Trends Over Time



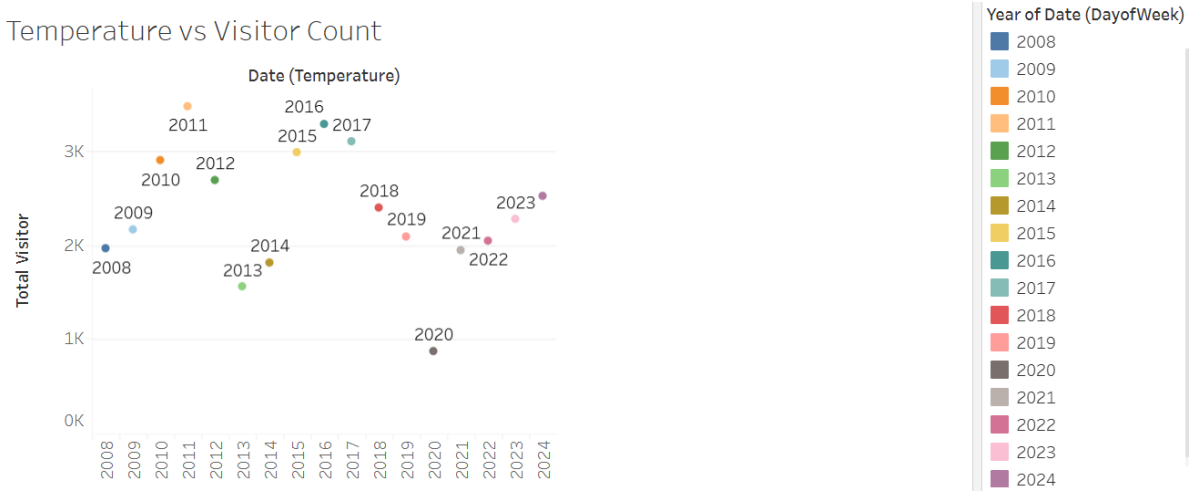
As shown in the line chart, there is a noticeable fluctuation in the number of trick-or-treat visitors from 2008 to 2024. The peak years were around 2011 and 2016, with a clear decline in 2020, likely due to the COVID-19 pandemic. While there has been a recovery in recent years, the overall trend does not indicate a consistent increase or decrease in participation. This suggests that various external factors significantly influence trick-or-treating activity.

2. Time Period - Visitor Count

The stacked bar chart illustrates visitor counts across different time periods each year. The most popular time for trick-or-treating is between 6 PM and 8 PM. Additionally, the "Before 6pm" and "After 8pm" periods contribute relatively less to the overall visitor count, suggesting most families adhere to traditional evening hours for this activity. The consistent popularity of the 6-8 PM window could inform resource planning for communities and homeowners.



3. Temperature vs. Visitor Count



The scatter plot examines the relationship between temperature and total visitor count. While there appears to be some correlation, it is not very strong. There is a slight trend where years with mild temperatures also have relatively strong trick-or-treater turnout. However, the lack of a strong trend suggests that temperature may not be as influential as other factors, such as cultural trends or specific community events. This weak correlation could indicate that families are willing to brave various weather conditions to participate in Halloween festivities.

Conclusion

To conclude with this analysis, it reveals that Halloween trick-or-treating trends can be influenced by multiple factors. The time of day remains a key determinant of visitor count, with the 6-8 PM window consistently seeing the highest participation. External events like the COVID-19 pandemic can drastically reduce participation. The analysis suggests that temperature has a less significant effect than other variables. These findings could be valuable for homeowners planning for Halloween, community organizers seeking to maximize participation, and public health officials considering safety guidelines during such events.

Link to Tableau Online Solution: https://prod-useast-b.online.tableau.com/#/site/msis670b/workbooks/2580678