

GROUP 2



PRESENTATION

# SAN FRANCISCO

## Reviewing Crash Data

2005 - 2024

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# San Francisco Traffic Safety

## Background

- Vision Zero SF aimed to reduce accidents and eliminate pedestrian fatalities in San Francisco by 2024.
- Despite efforts, the goal was not met therefore, prompting a need to reassess.

## Why This Matters

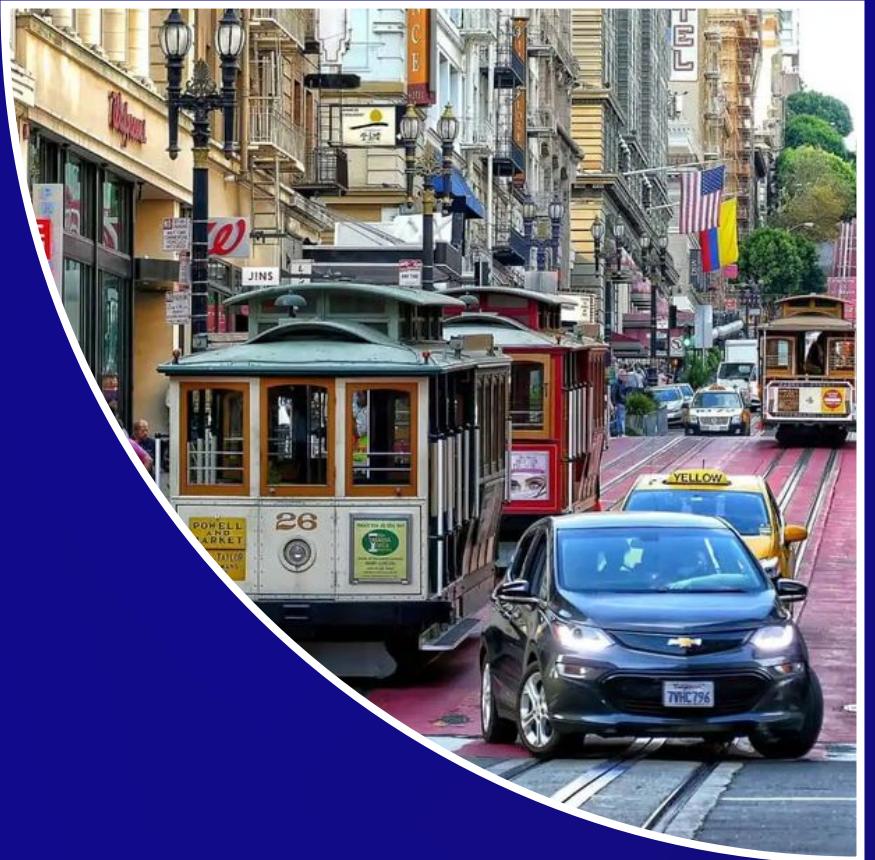
- Traffic incidents and injuries remain a pressing issue across the city.
- A data-driven analysis is essential to understand current trends and identify areas for improvement.

## What We Present

- Key figures summarizing traffic incidents and injuries in San Francisco.
- Insights into patterns, trends, and areas of concern to inform future safety initiatives.



## Traffic Accidents 2005-2024



San Francisco set an ambitious goal with Vision Zero SF: to reduce crashes and eliminate pedestrian fatalities. However, as the data shows, the city fell short. This report takes a closer look at traffic accidents, injuries, and fatalities to assess the current state of roadway safety. By analyzing key figures and trends, we aim to provide insight into where progress has been made and where challenges remain.

# Dataset Review



## Dataset Provenance

- Available on San Francisco's DataSF: Open Data Portal
- Provided by the SF Department of Public Health/SF Police Department



## Dataset Development

2018 – Present: SFPD's Interim Collision System  
2013 – 2017: Crossroads Software Traffic Collision Database (CR)  
2005 – 2012: Statewide Integrated Transportation Record System (SWITRS),



## Dataset Description

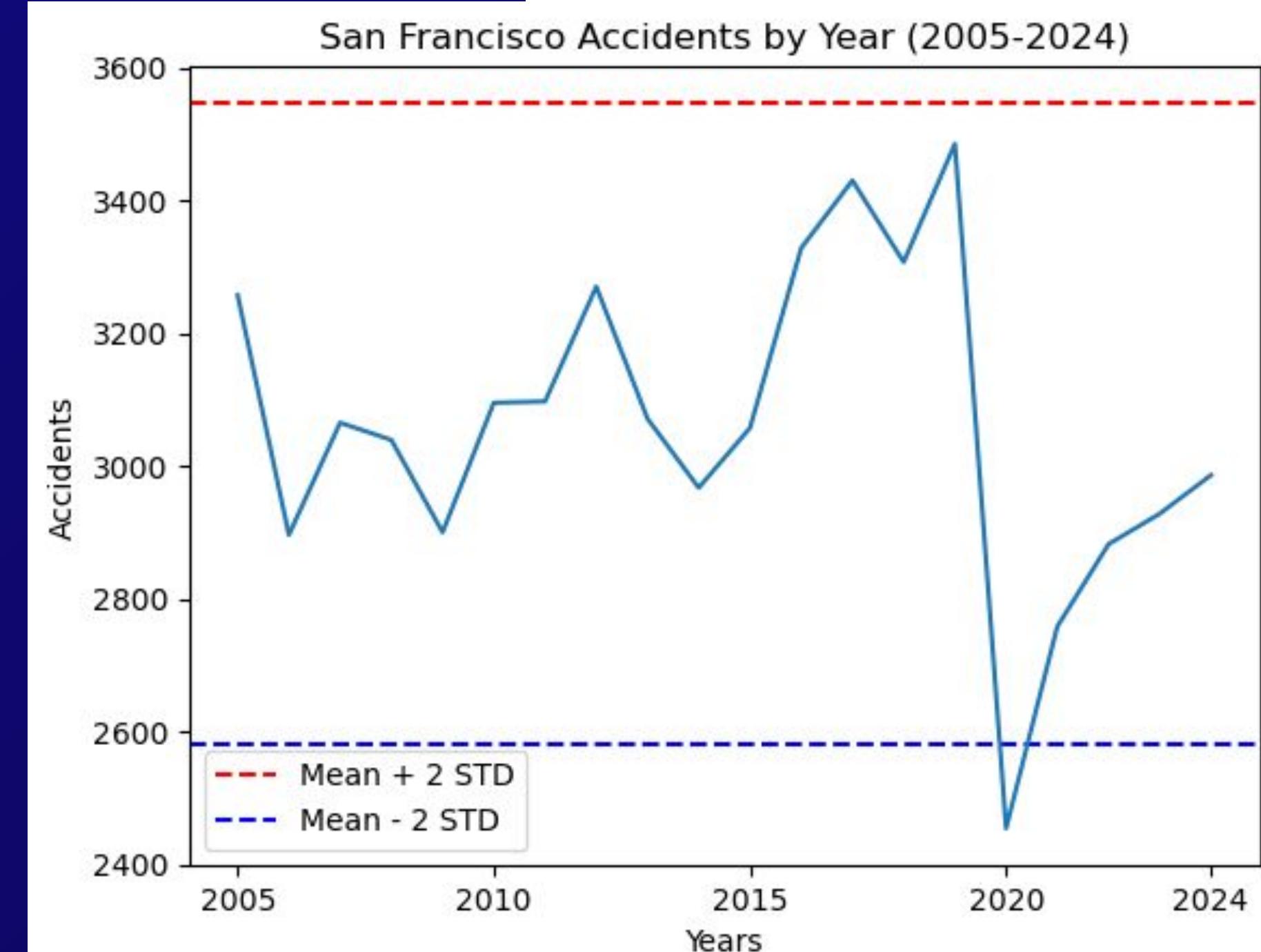
- Version dated January 15, 2025
- Covers 2005 – 2024
- 61.3K rows, 58 columns
- Each row represents a collision resulting in at least one injury, including fatalities

This dataset provides a comprehensive record of traffic incidents in San Francisco, spanning nearly two decades. It integrates data from multiple sources, ensuring a robust view of collision trends over time. By analyzing this dataset, we can gain insights into injury patterns, high-risk areas, and the effectiveness of past traffic safety initiatives.

Source acknowledged as TransBASE.sfgov.org

# Number of Accidents Over Time per Year

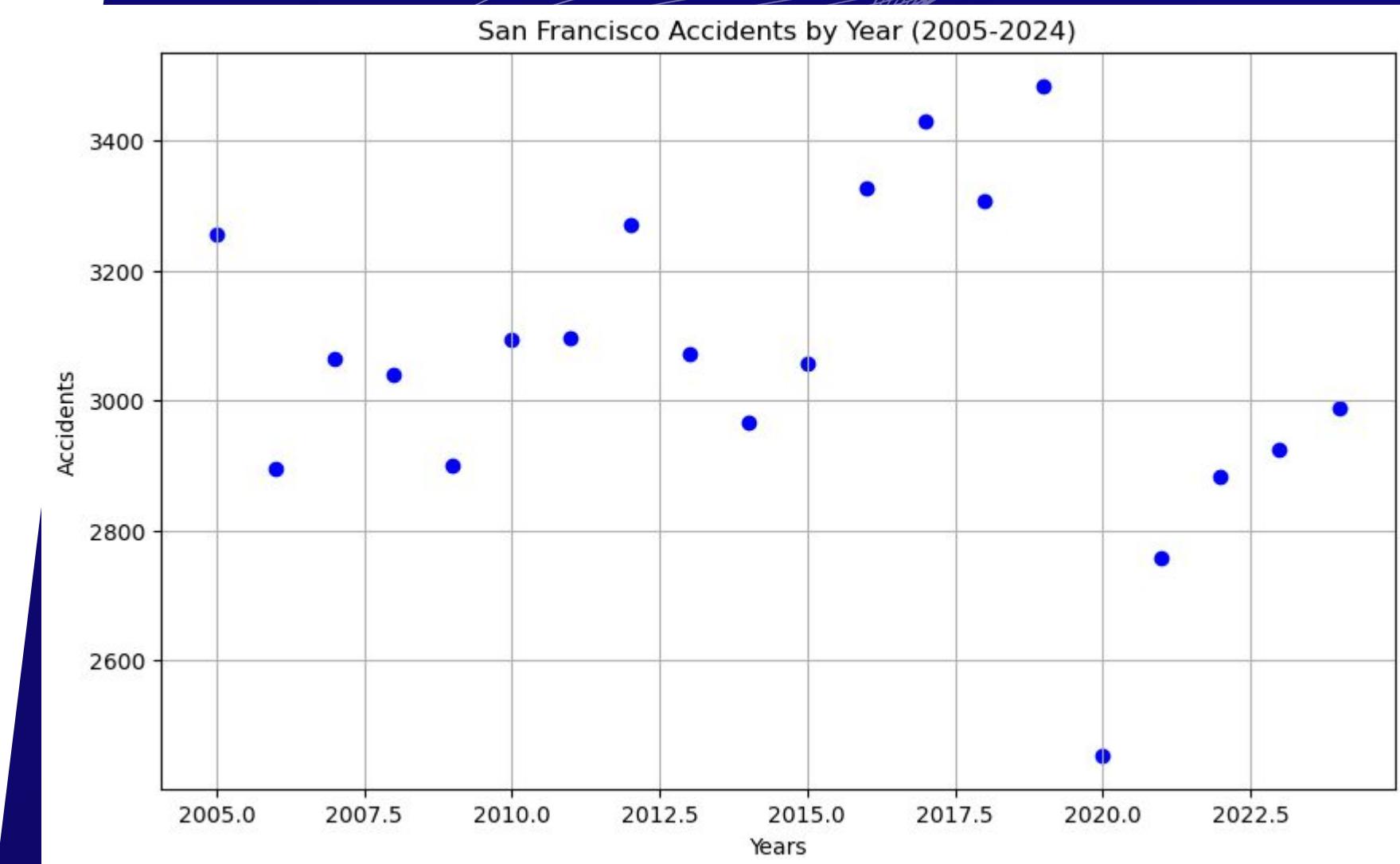
- The number of traffic accidents fluctuated over the years, likely reflecting changes in traffic policies, infrastructure, and enforcement.
- Certain years show noticeable spikes, potentially due to increased population, construction projects, or shifts in reporting standards.
- 2020 had a significant dip (beyond 2 standard deviations) very likely due to SF's COVID-19 shutdown.



# Ranking of Annual SF Accident Counts (2005 - 2024)

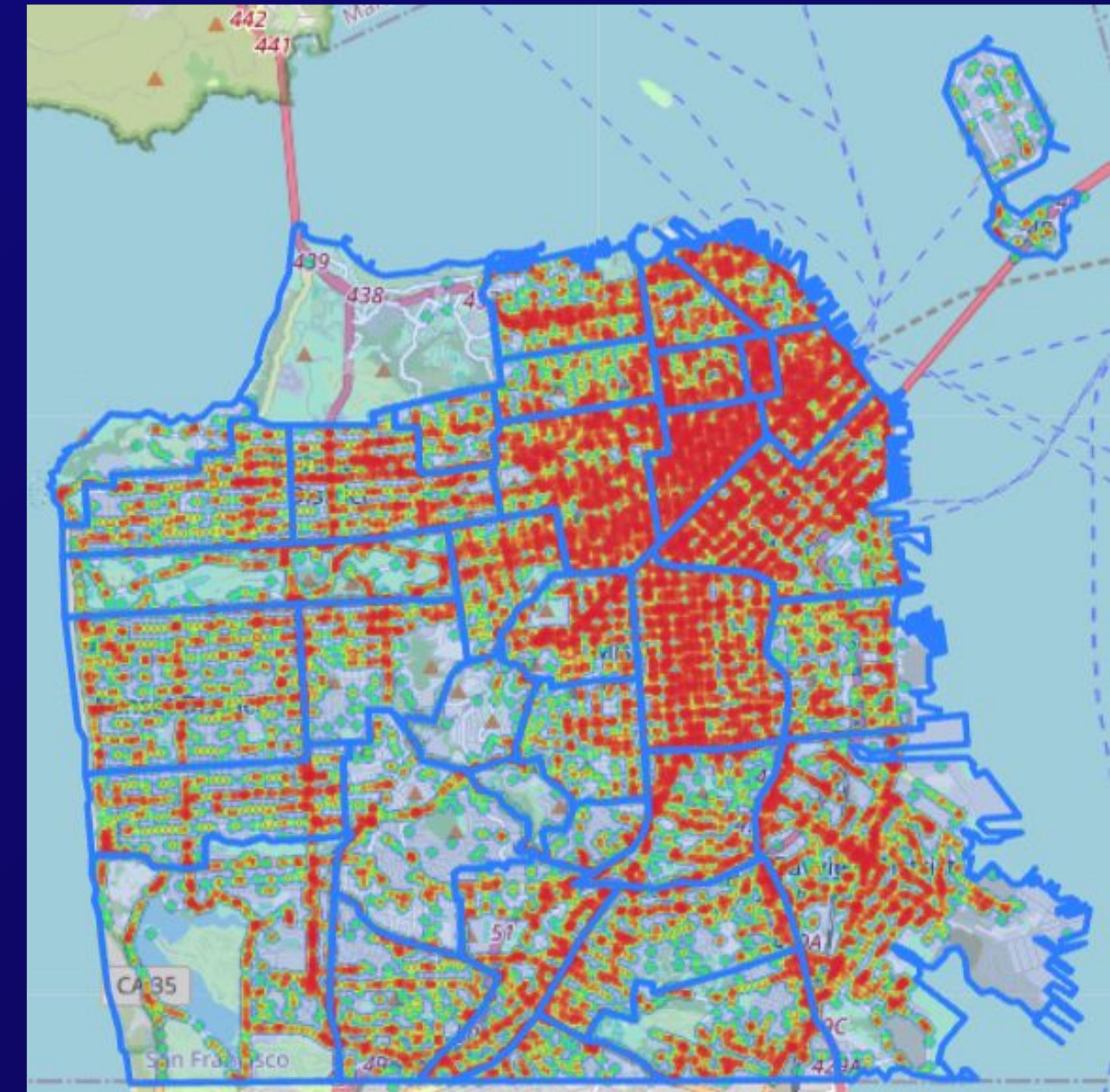
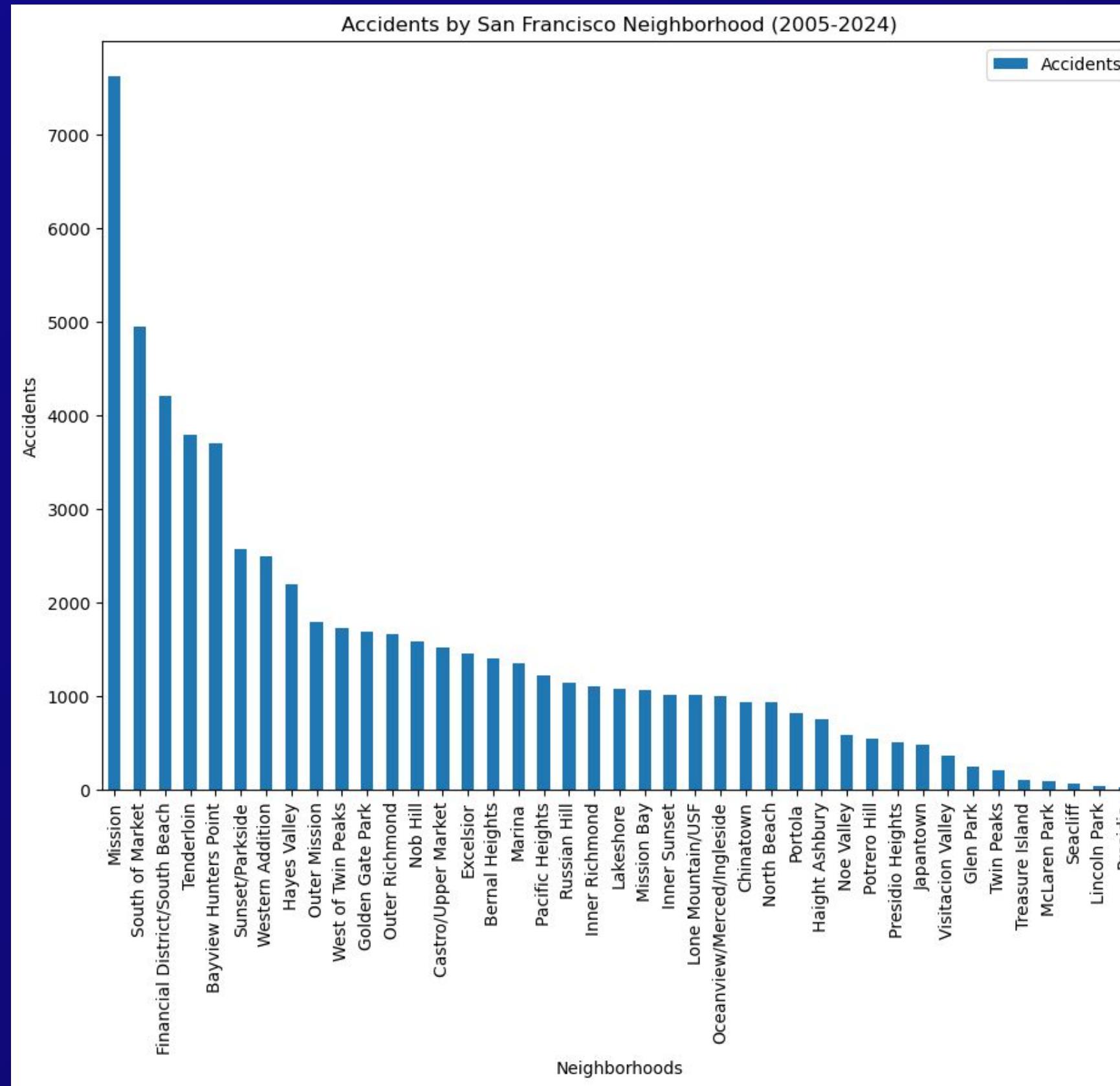
Year (Top 5)	Accident Count
2019	3485
2017	3430
2016	3328
2018	3307
2012	3270

Year (Bottom 5)	Accident Count
2009	2900
2006	2896
2022	2882
2021	2758
2020	2454

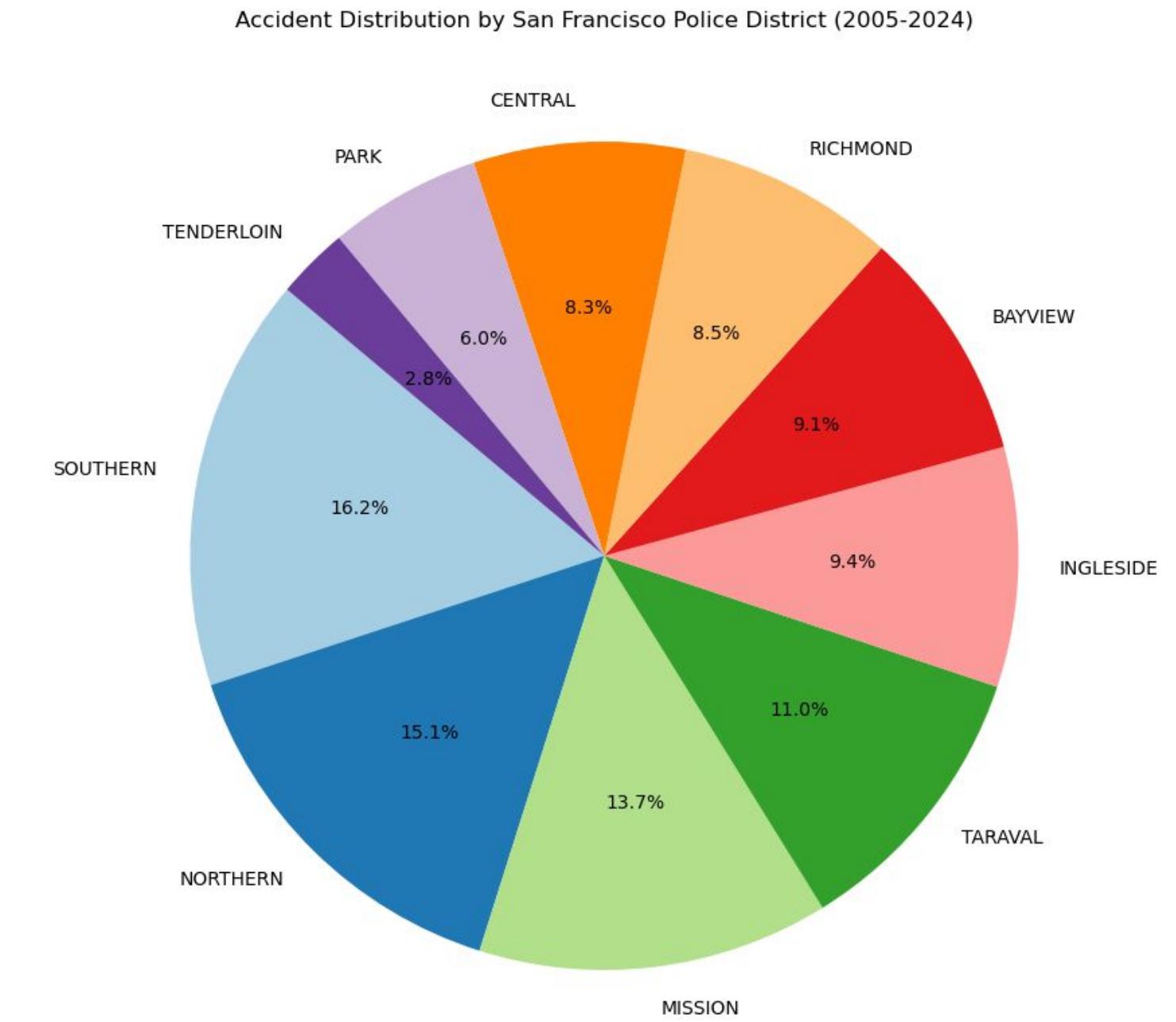
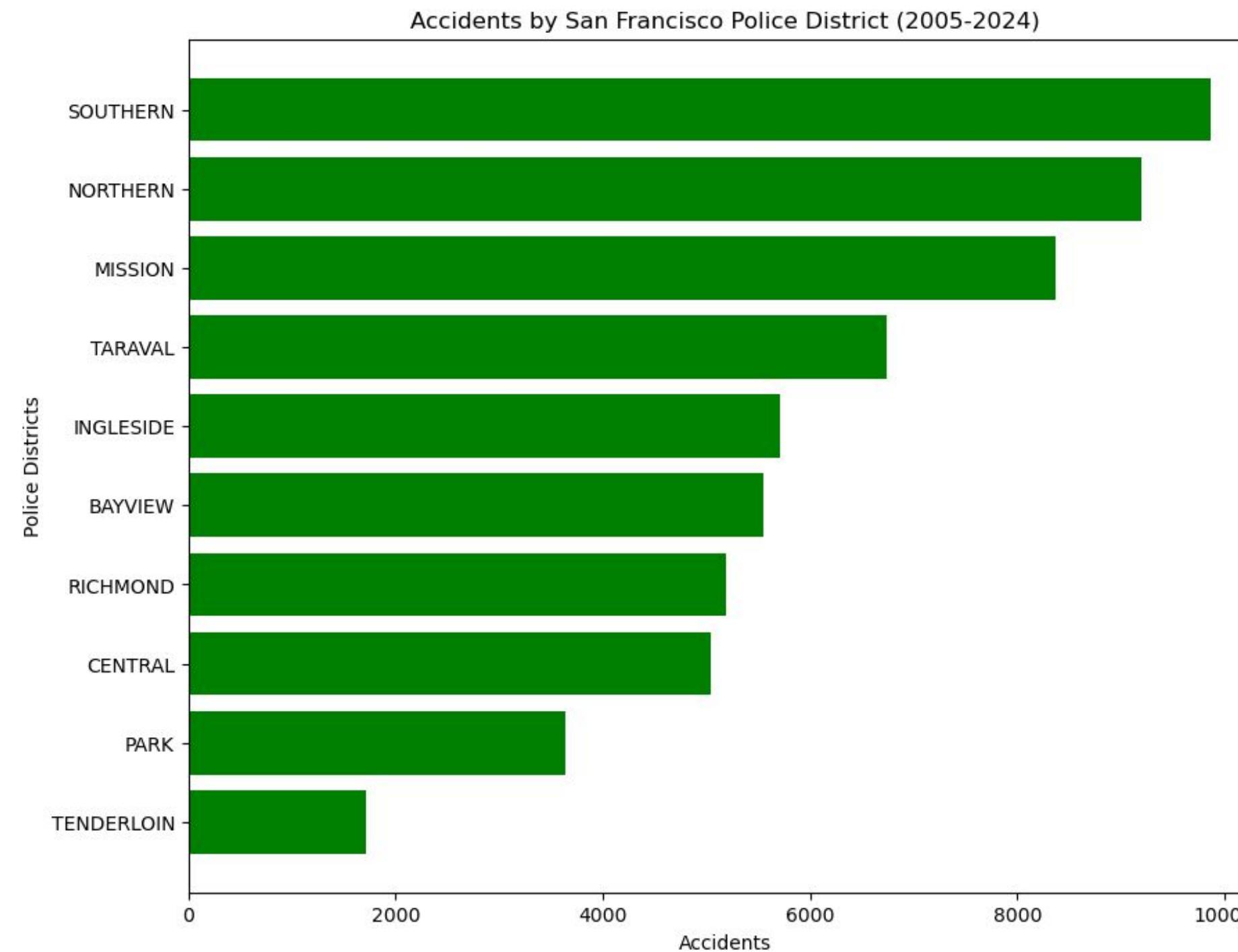


This ranking of annual accident counts from 2005 to 2024 provides insight into the years with the highest traffic incidents. 2019 marked the peak number of accidents (n=3485) whereas 2020 marked the fewest (n=2454).

# Accident Counts by SF Neighborhood



# Accidents by SF Police District (n=10)



# SF Accidents by Month

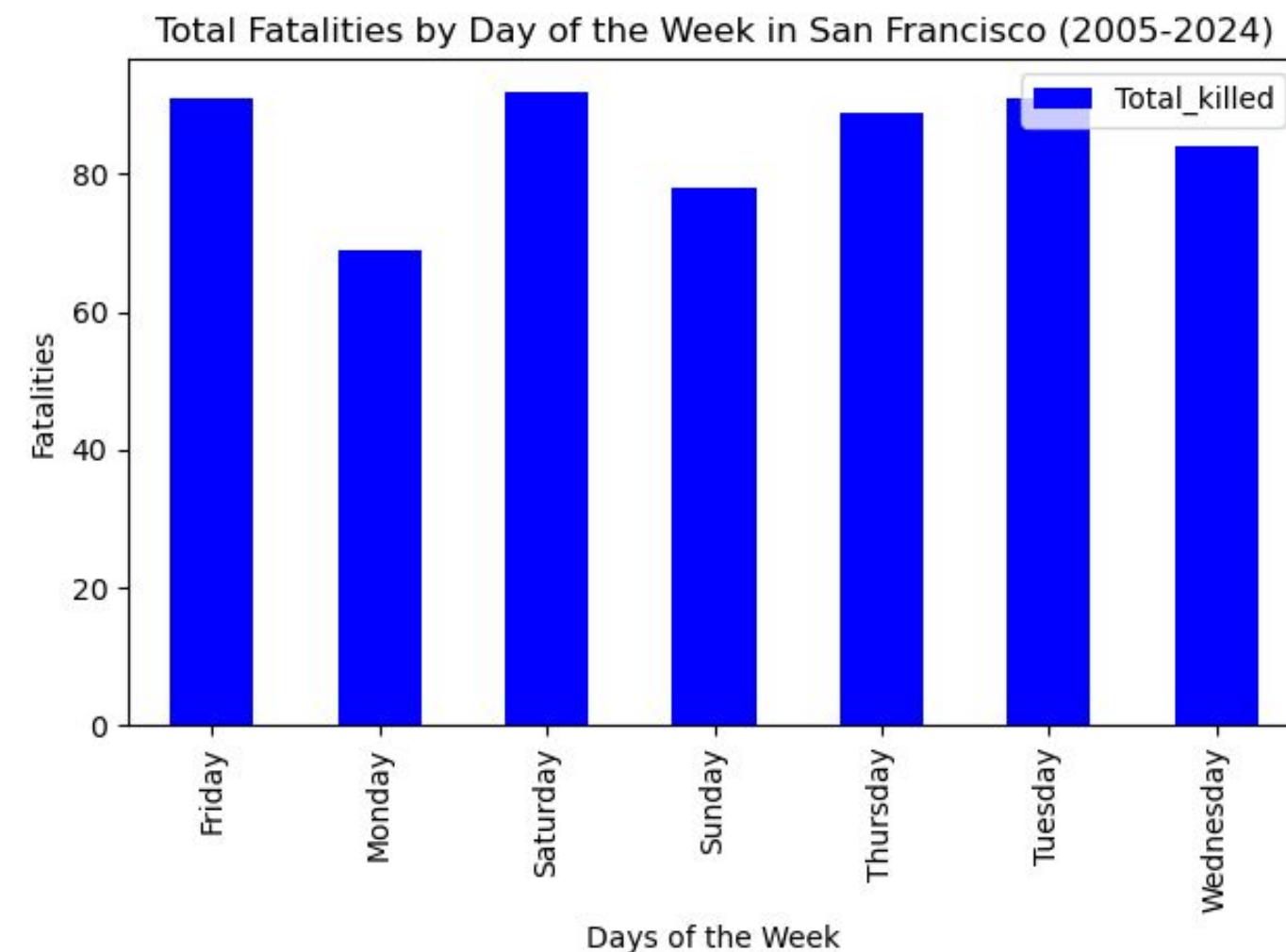
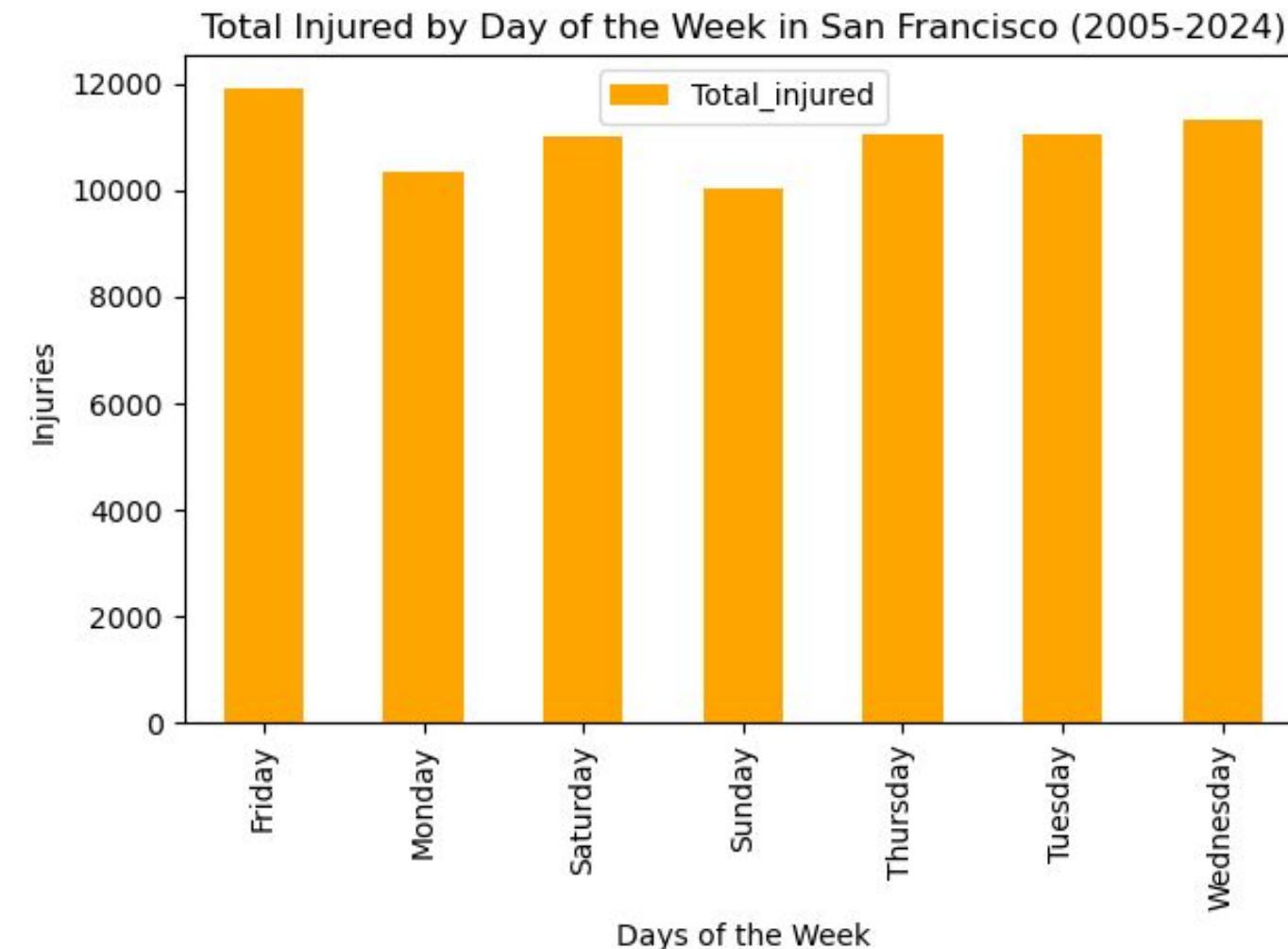
Monthly traffic accidents remained relatively steady throughout the years in San Francisco.

October saw the most total accidents (n=5884) while February saw the fewest (n= 4813).



# What Day of the Week has the Most Accidents in SF?

- Fridays experienced the most injuries.
- Saturdays experienced the most fatalities.
- Understanding these trends can help in resource allocation, such as increased law enforcement presence on high-risk days

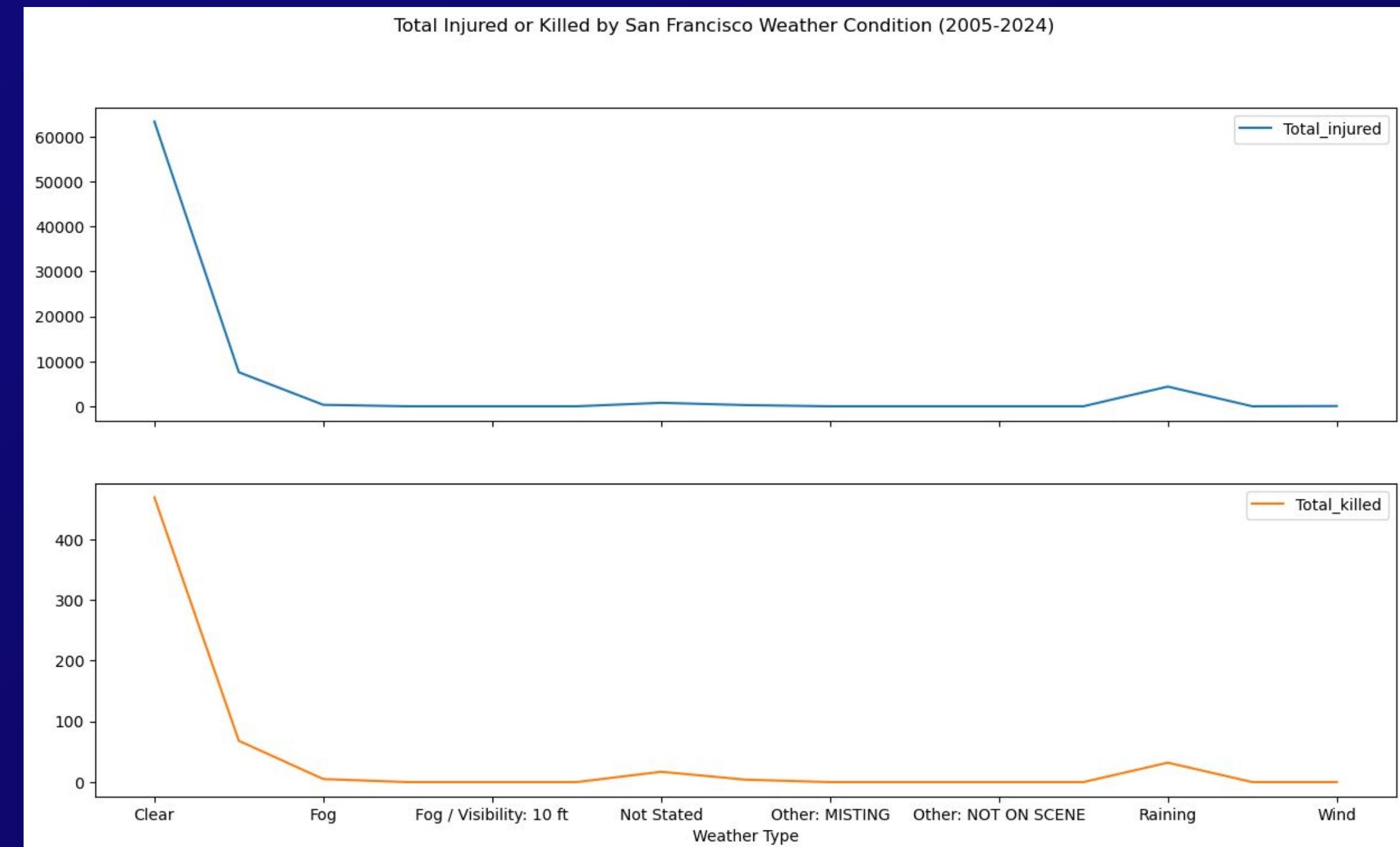


# Impact of SF Weather Conditions on Injury and Fatality-related Traffic Accidents

- Foggy or rainy conditions were associated with far fewer accident-related injuries or fatalities than clear conditions (which was the most prevalent weather condition in SF).

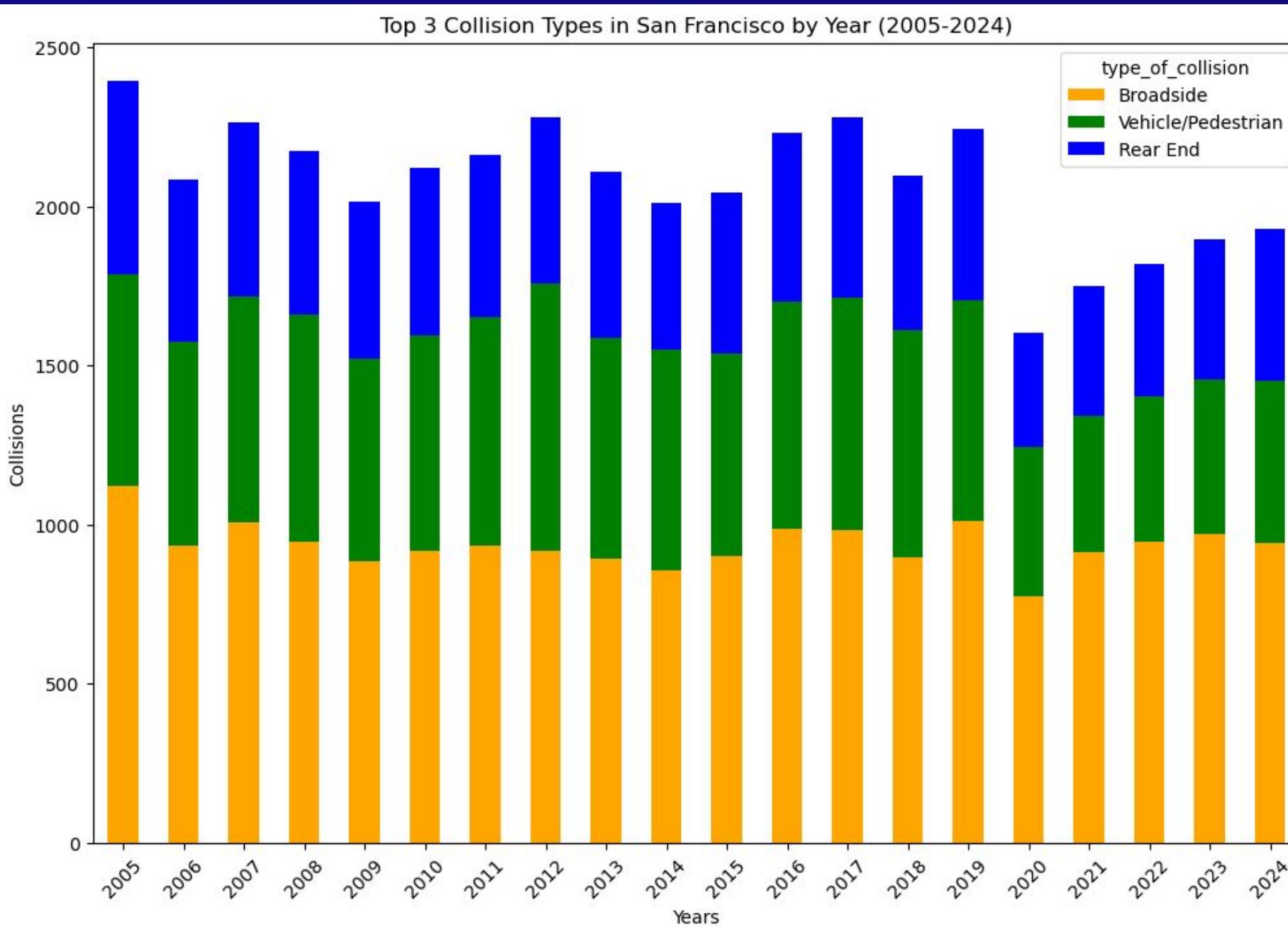


- Understanding how different weather conditions correlate with traffic accidents can inform infrastructure improvements and public safety campaigns.



# Top 3 Collision Types in SF –

## Percentage Breakdown



**Broadside 45.1%**



**Vehicle/Pedestrian 30.9%**



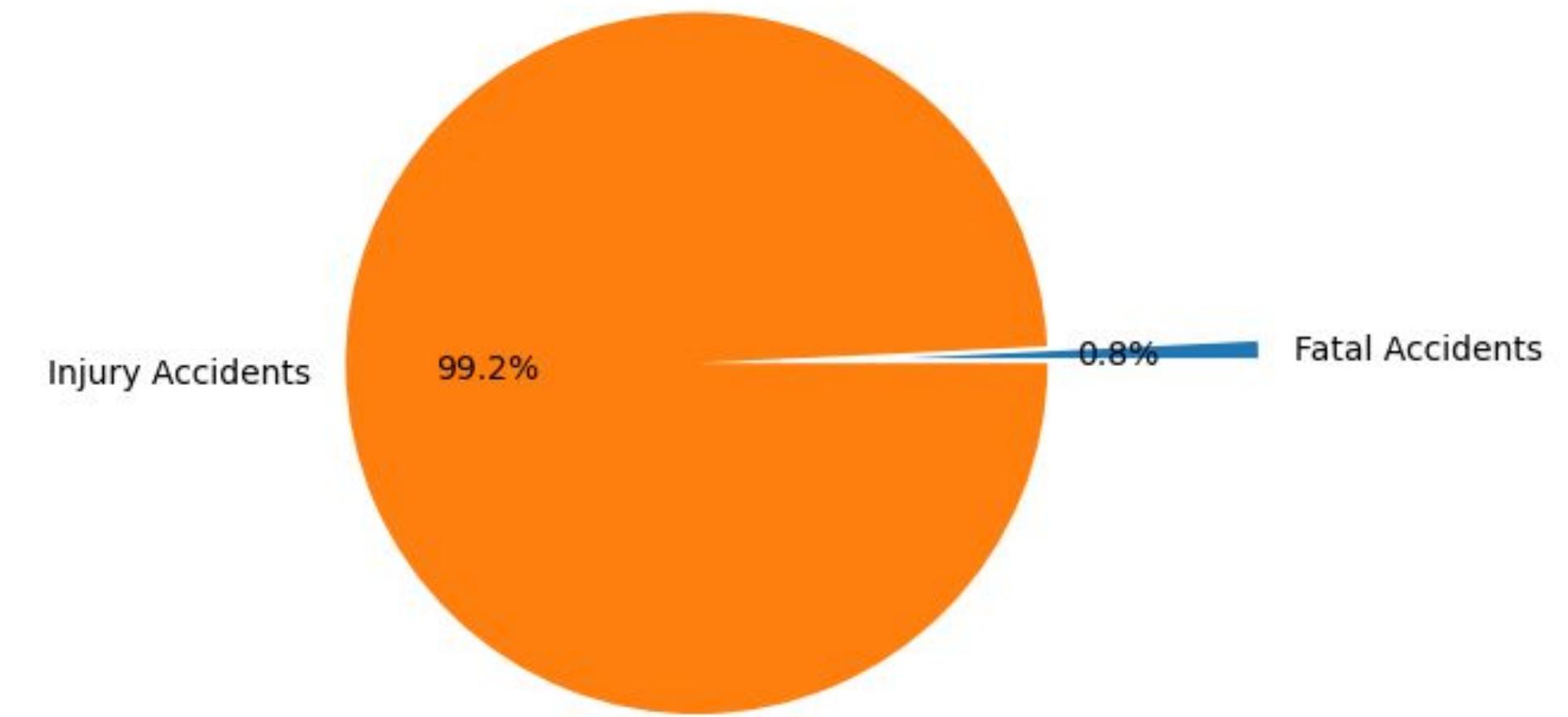
**Rear End 24%**

Traffic accidents in San Francisco predominantly fall into a few key collision categories, with the top three types collectively representing a large share of incidents.

# Percentage of SF Injury Crashes Resulting in Injuries and at Least One Fatality

Percentages of Injury vs Fatal Accidents in San Francisco (2005-2024)

- A small percentage of accidents resulted in fatalities (0.8%) compared to injury-related accidents (99.2%).



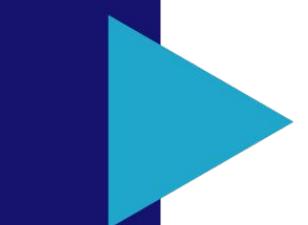
# Key Takeaways & Final Thoughts

## Key Takeaways



- Despite progress in traffic safety initiatives, San Francisco fell short of its 2024 goals.
- Certain neighborhoods (Mission) and police districts (Southern) experienced higher accident rates.
- Accidents did not strongly associate with poor weather conditions or specific months and/or days of the week.
- Accident mitigation efforts may benefit from a focus on infrastructure updates, including technology-related tools, in key areas.

## Final Thoughts



# Recommended Next Steps

Strengthening traffic enforcement in high-incident areas can improve compliance with traffic laws and reduce accidents. By investing in smarter infrastructure and data-driven policy solutions, we may optimize traffic flow and proactively address potential hazards. Continued community engagement in traffic safety awareness programs should foster shared responsibility and promote safer behaviors across the San Francisco.

**Strengthen Traffic Enforcement in High-Incident Areas**

**Invest in Smarter Infrastructure & Data-Driven Policy Solutions**

**Encourage Community Engagement in Traffic Safety**





# THANKS FOR JOINING US TODAY

