Predictive Model for Forest Fire Preparedness

Determining the likelihood of forest fires by using weather projections

Why this project?

- Forest fires are becoming more commonplace and dangerous
- Weather is getting warmer by the year
- Anticipating forest fires may help communities be better equipped to handle the risks.

Where my data came from:

Canada

Environment and natural resources

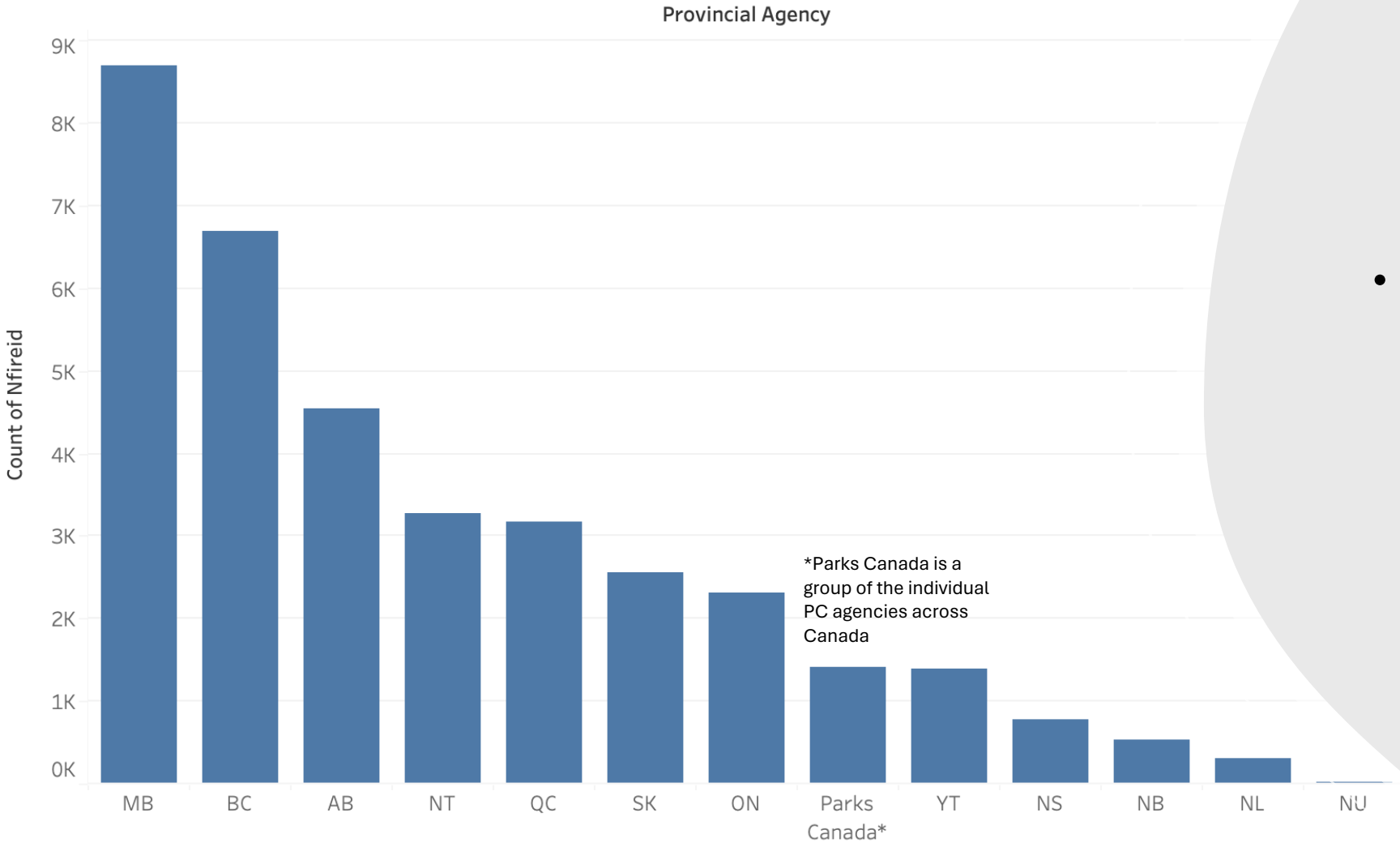
Forests and forestry

Findings

FOREST FIRE DATA

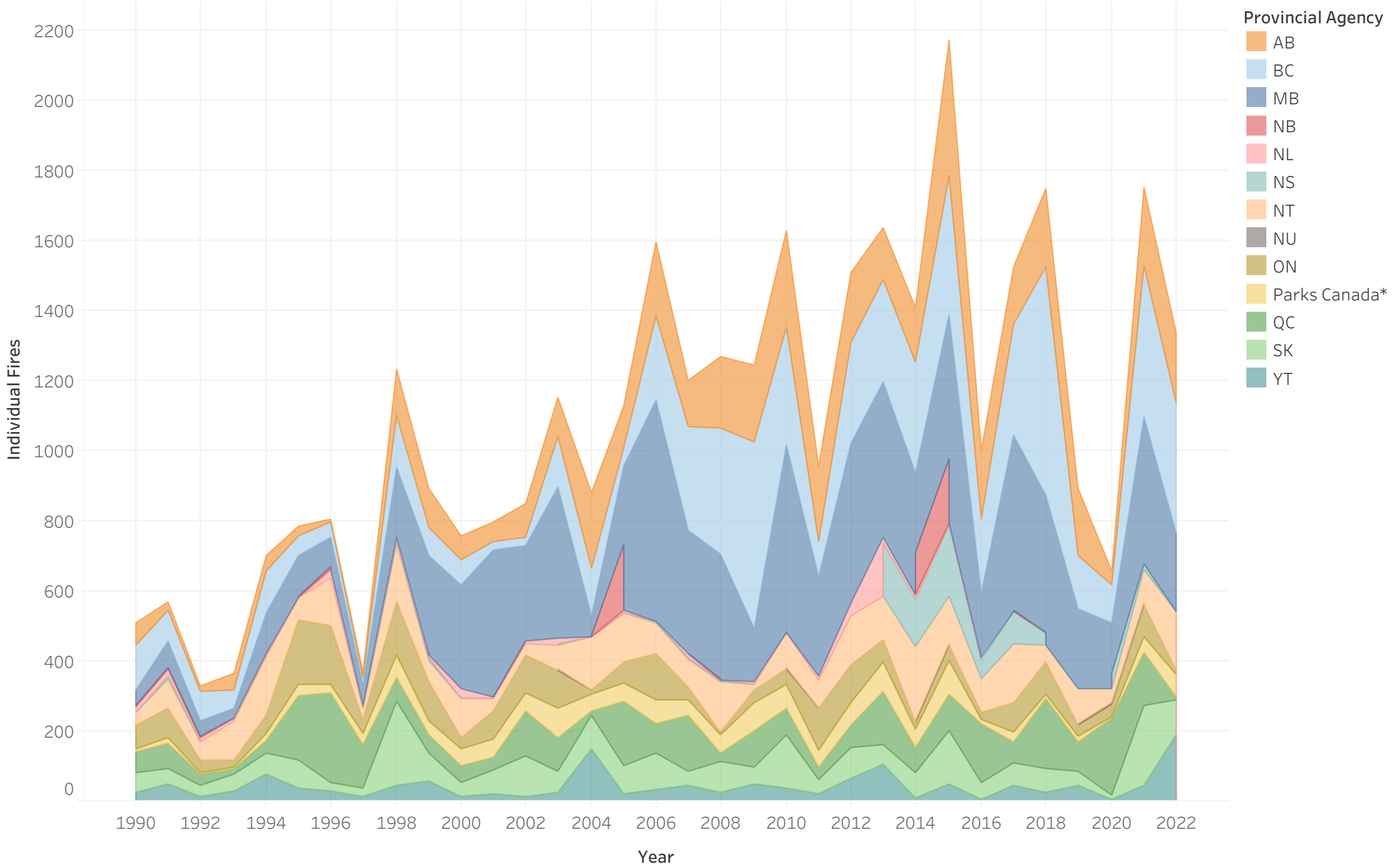
Number of Registered Forest Fires by Provincial Agency

between 1990 and 2022



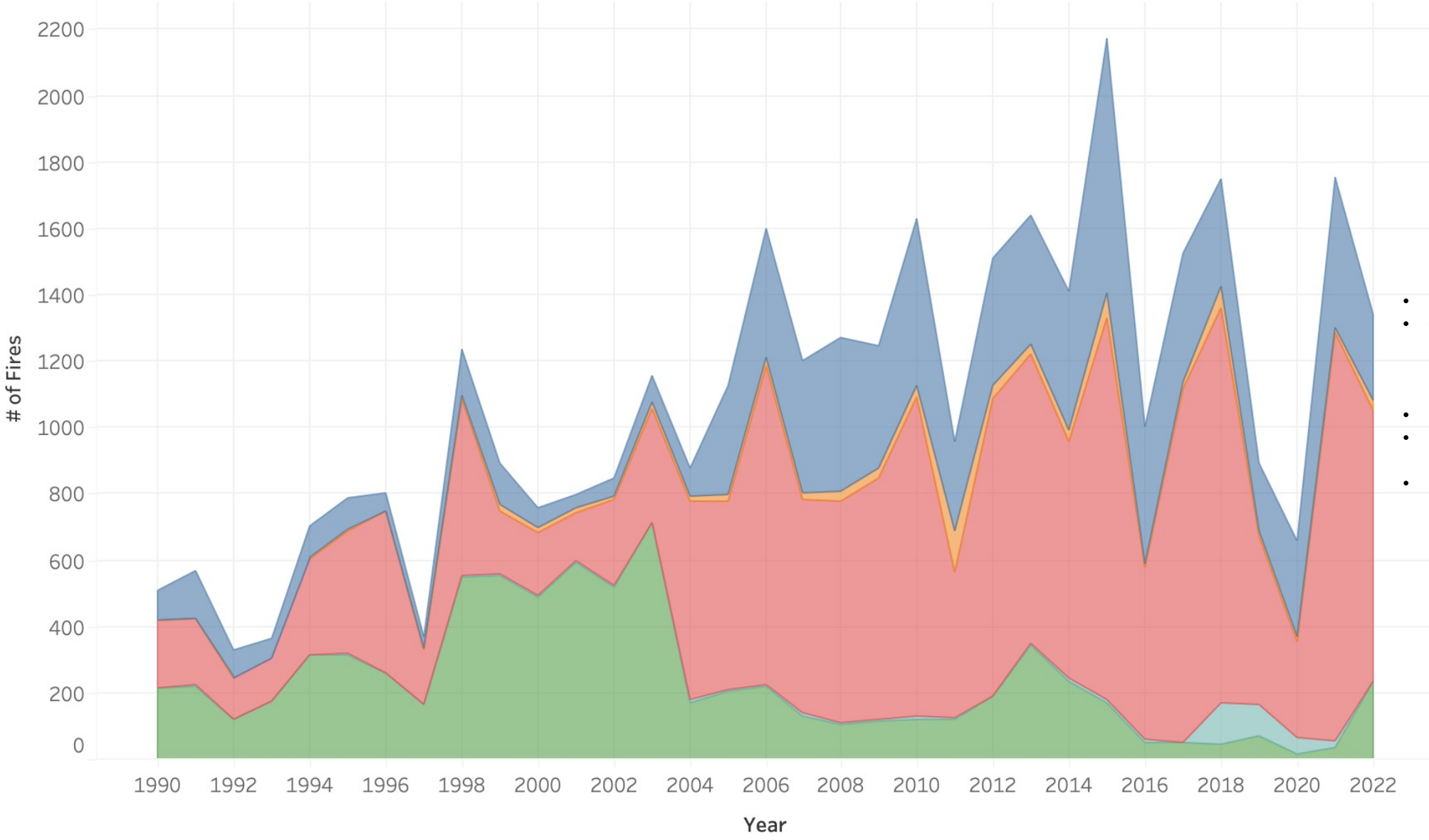
- Most fires occur in the Western provinces

Number of Fires by Provincial Agency by Year



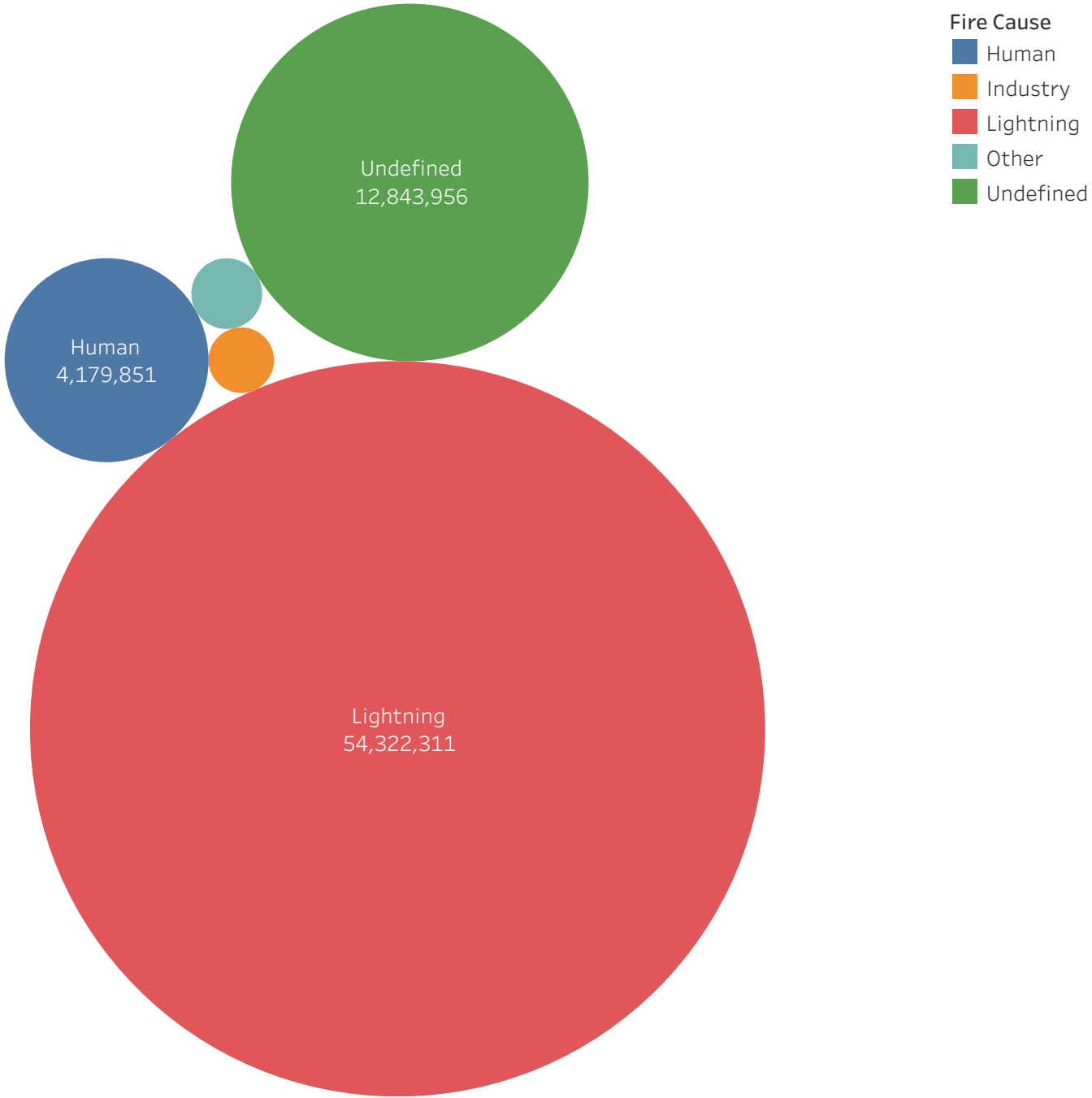
Number of Fires by Cause

1990 to 2022

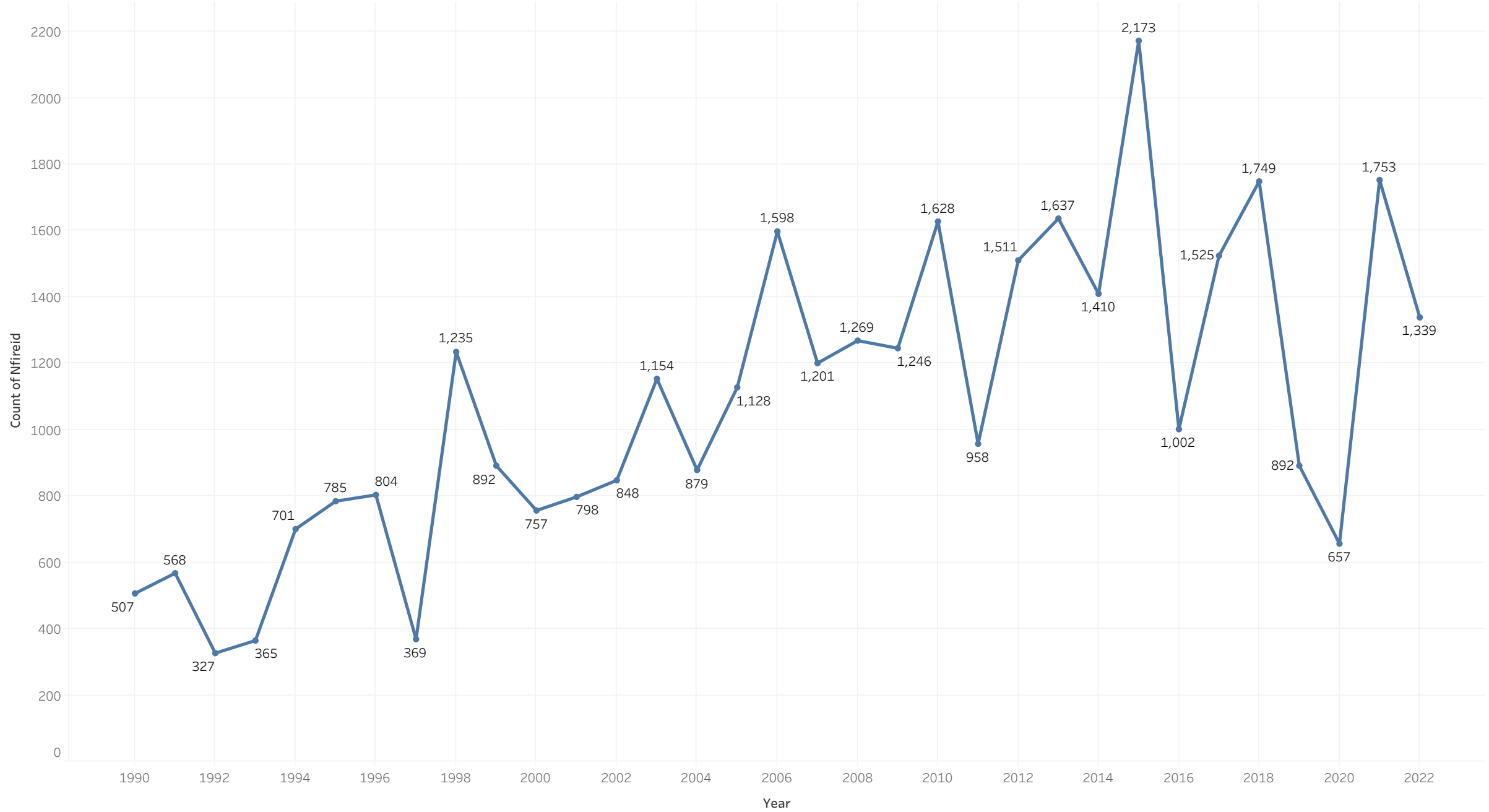


- **Undefined**: Cause of fire unavailable
- **Other**: Not covered by another category but resulting from known causes (e.g. "miscellaneous", "incendiary").
- **Lightning**: Lightning
- **Industry**: e.g. forestry, oil and gas, rail, agriculture, prescribed burn
- **Human**: Nonindustrial human activity, eg. recreational (campfire, ATV, etc), arson

Hectars Burned by cause

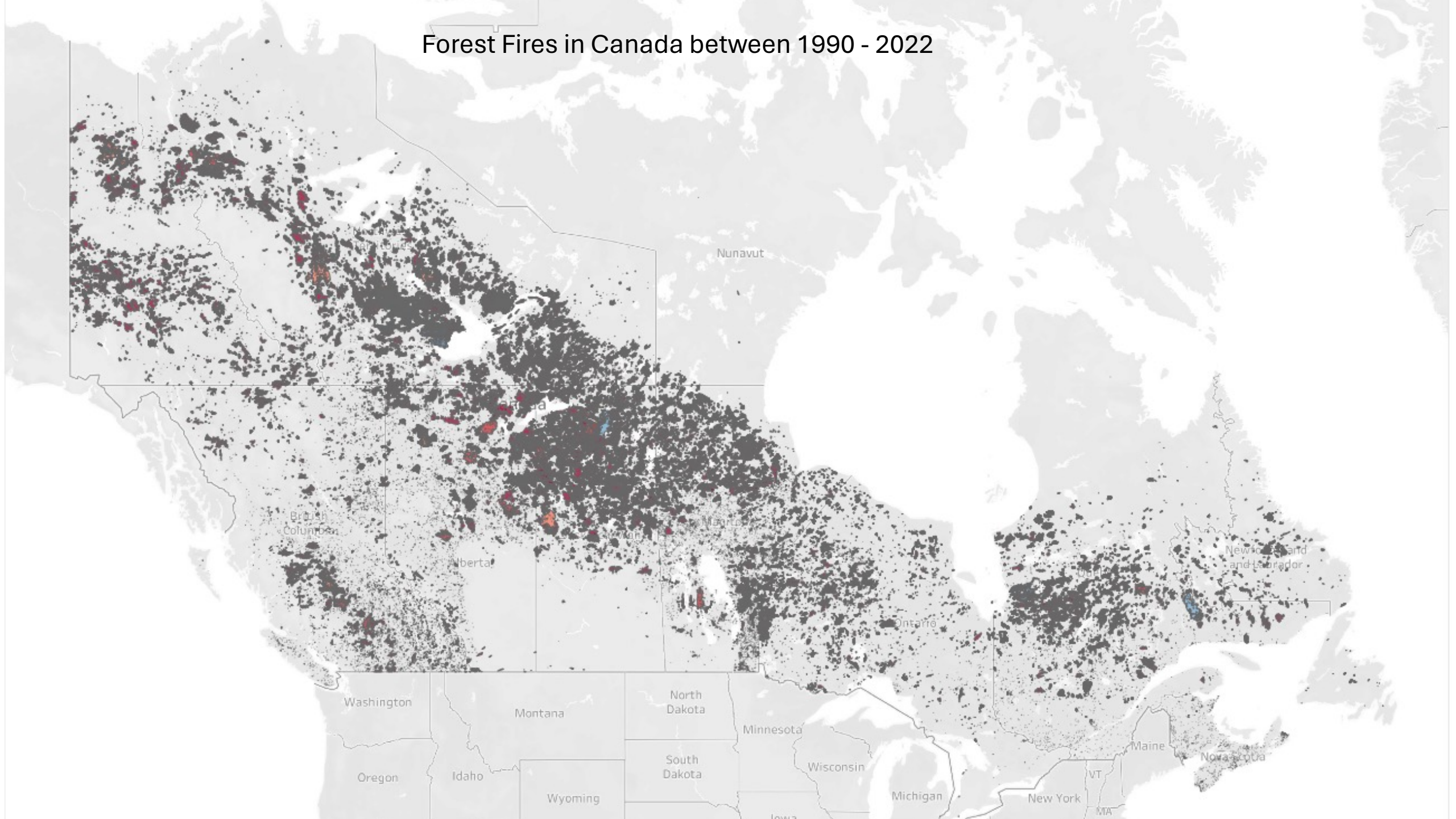


Number of Registered Forest Fires by Year



The trend of count of Nfireid for Year. The marks are labeled by count of Nfireid.

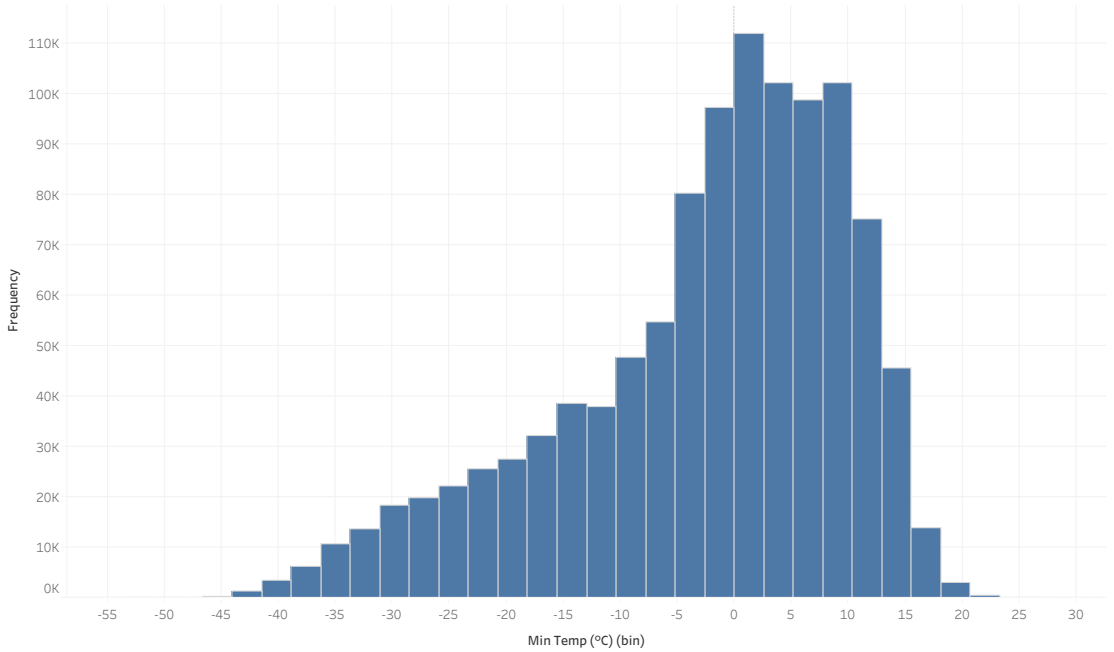
Forest Fires in Canada between 1990 - 2022



Map of the Boreal Forest

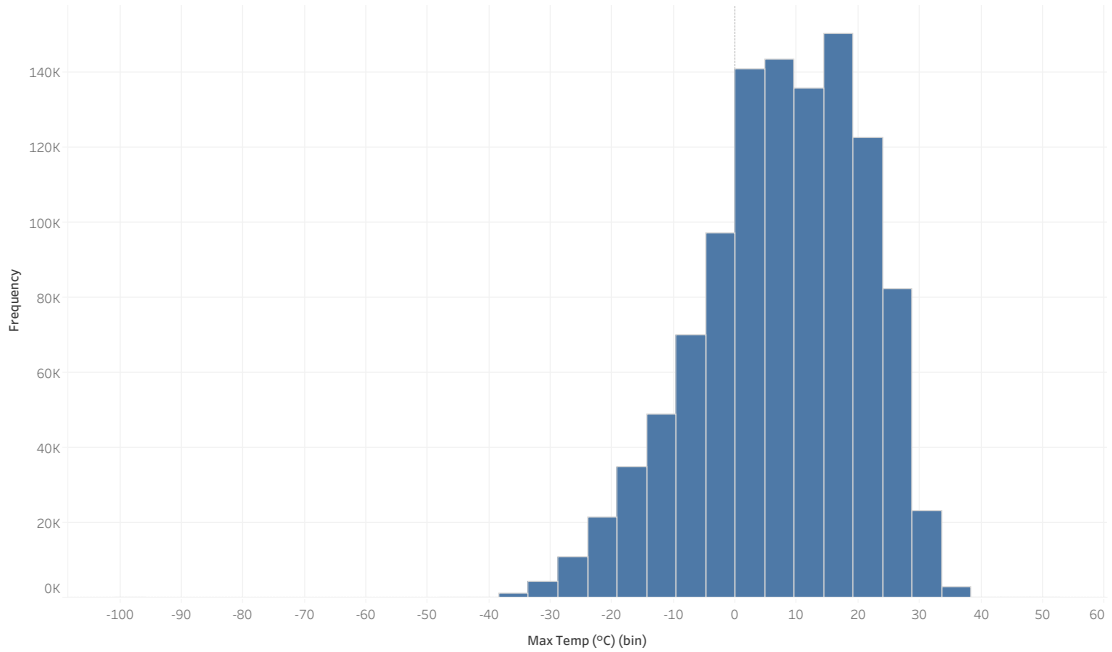
Distribution of Minimum Temperature

between 1990 and 2022



Distribution of Maximum Temperature

between 1990 and 2022



- Left skew indicating higher frequency of higher temperatures
- Temperatures most likely to keep increasing as time goes on