

Joyce Woznica

IST 719 Spring 2020 (Tuesday 7:00 PM – 8:30 PM)

Professor Gary Krudys

2/23/2020

Tracking the Danger Zone

The Dangers of Horse Racing in New York State

Data Description

Within the state of New York, any incident, death, or breakdown of any horse at any facility under the Gaming Commission's jurisdiction is reported to the Presiding Judge or Stewart at that facility which then provides the details of the incident to the Commission's main office in Schenectady, New York. The verified data is entered into a database that contains 13 components that detail over 4,000 incidents at New York State equine racetracks between 2009 and 2019.

Compelling Story

As an equestrian and horse owner, I believe that injuries and deaths happen on equine racetracks more often than they should. I am interesting in understanding if certain division of racing, certain tracks or other factors influence the high number of incidents.

Audience

The audience would be the New York State Gaming Commission, horse owners, jockeys and gamblers with concerns around animal cruelty. In addition, anyone with a love of horses may be interested in this information.

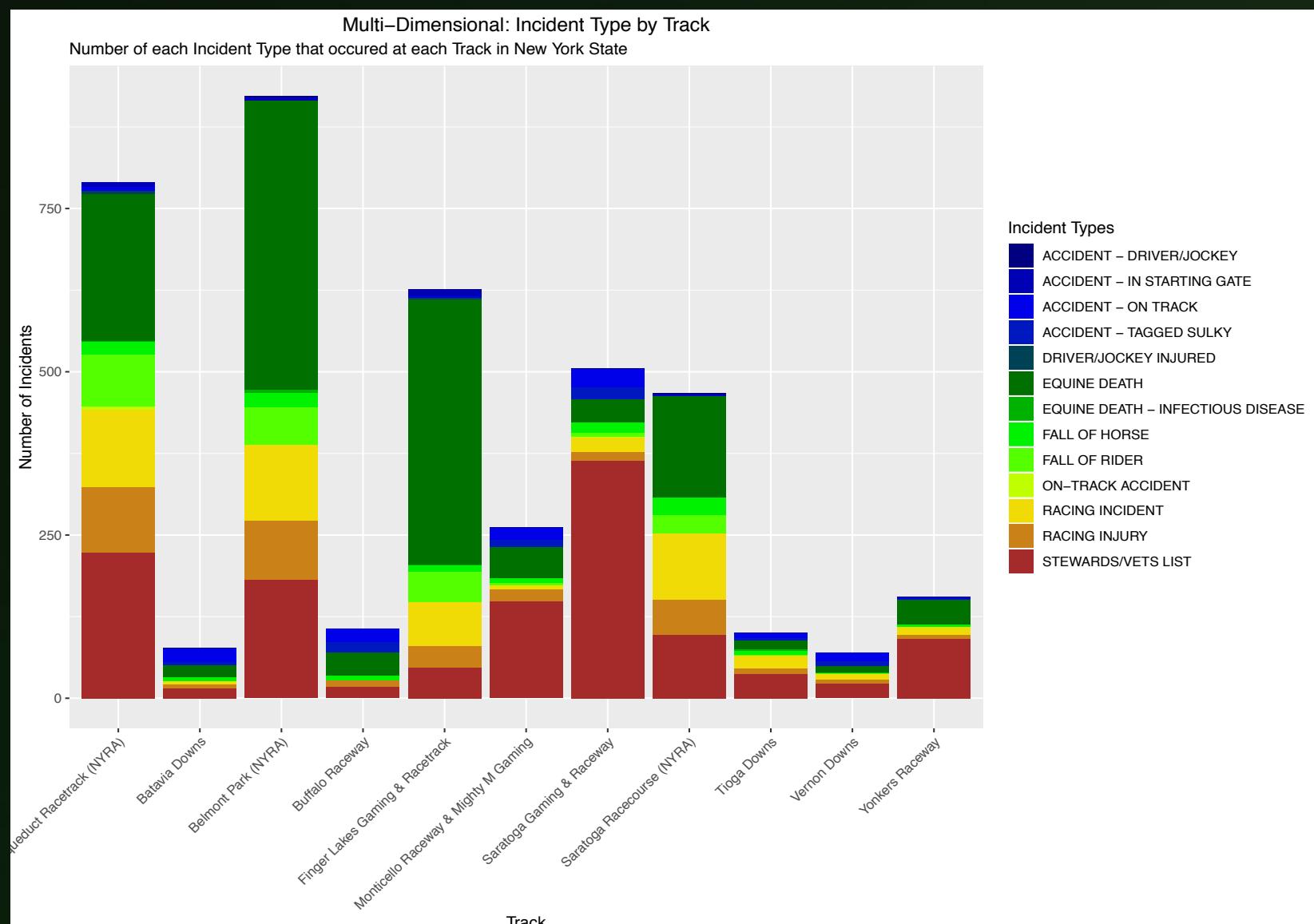
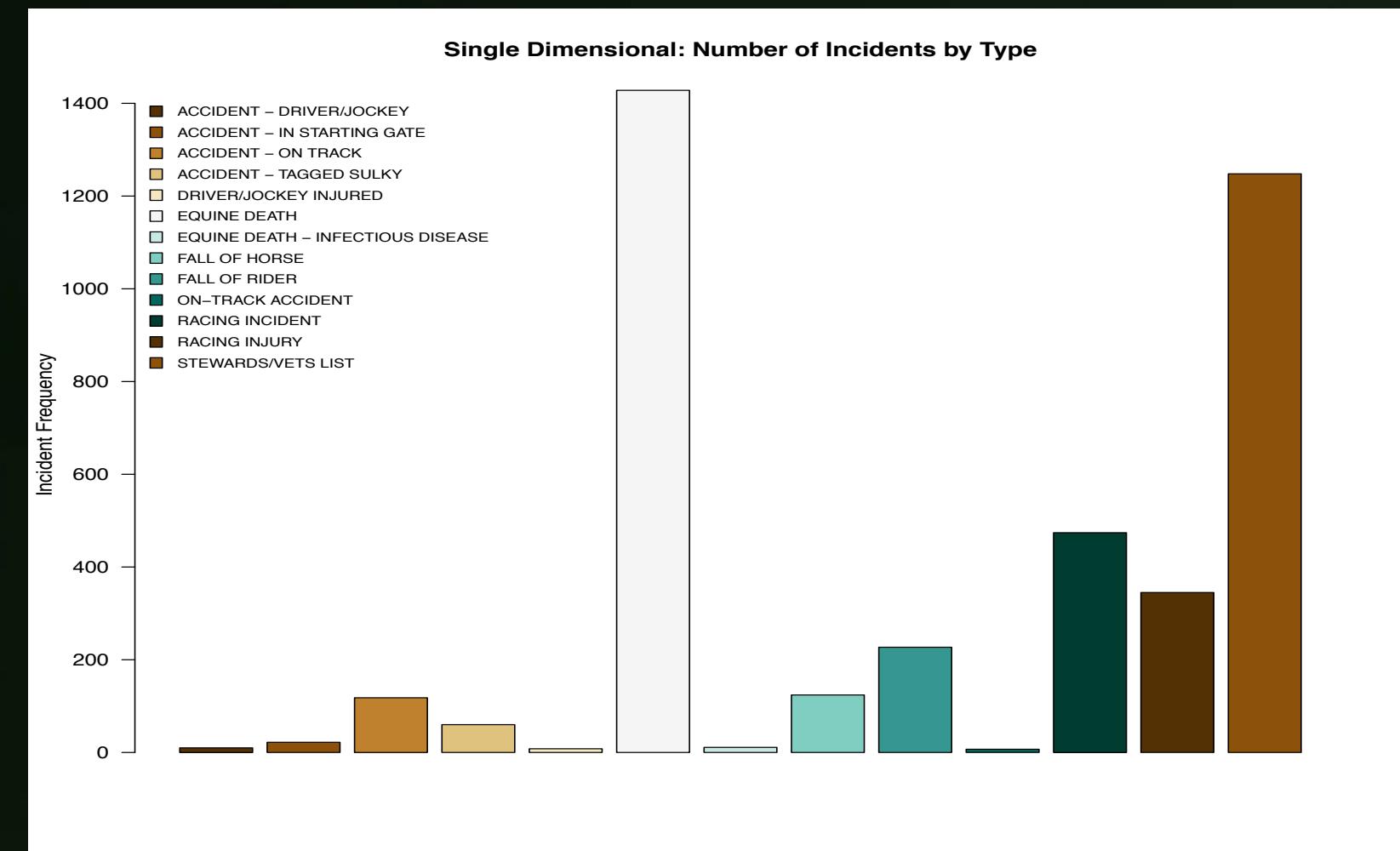
Questions

1. What are the most reoccurring incidents happening on racetracks?
[Single Dimensional: Frequency of Incidents by Incident Type \(barplot – Plot1\)](#)
2. Are the incidents different for the two racing divisions: harness or thoroughbred?
[Multi-Dimensional: Incident Type by Division \(barplot – Plot4\)](#)
needs a color change, maybe different type of plot?
3. Do specific tracks encounter a higher number of incidents?
[Single Dimensional: Frequency of Incidents by Type \(piechart – Plot2\)](#)
needs to be normalized
[Multi-Dimensional: Incident Type by Track \(Plot5\)](#)
4. What is the trend in the number of incidents over time?
Completed with PowerBI (only death and by division and by track) – Need to recreate in R
5. Does weather play a role in the types of incidents?
Needs to be created – plot type TBD.
Working on function for historical weather by zipcode of track
6. Are there any commonalities between the incidents across division and/or track?
[WordCloud on Descriptions](#)
7. Does track location in New York State have any bearing on accidents and deaths?
[Map of NY](#)
8. Are their certain trainers that have more incidents than others?
Plot to be created

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Incidents at NY Tracks



The Data

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quarter mike Anthony quarter William paddock step found horses shoe heels released rest scratch came toddler baker suspensor dominick sulk poor Jeremiah and trainer

possible Rodriguez choked continues carpal hospital collapsed time day divers ib drivers george warm mark carlos

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cardiovascular treatment martin
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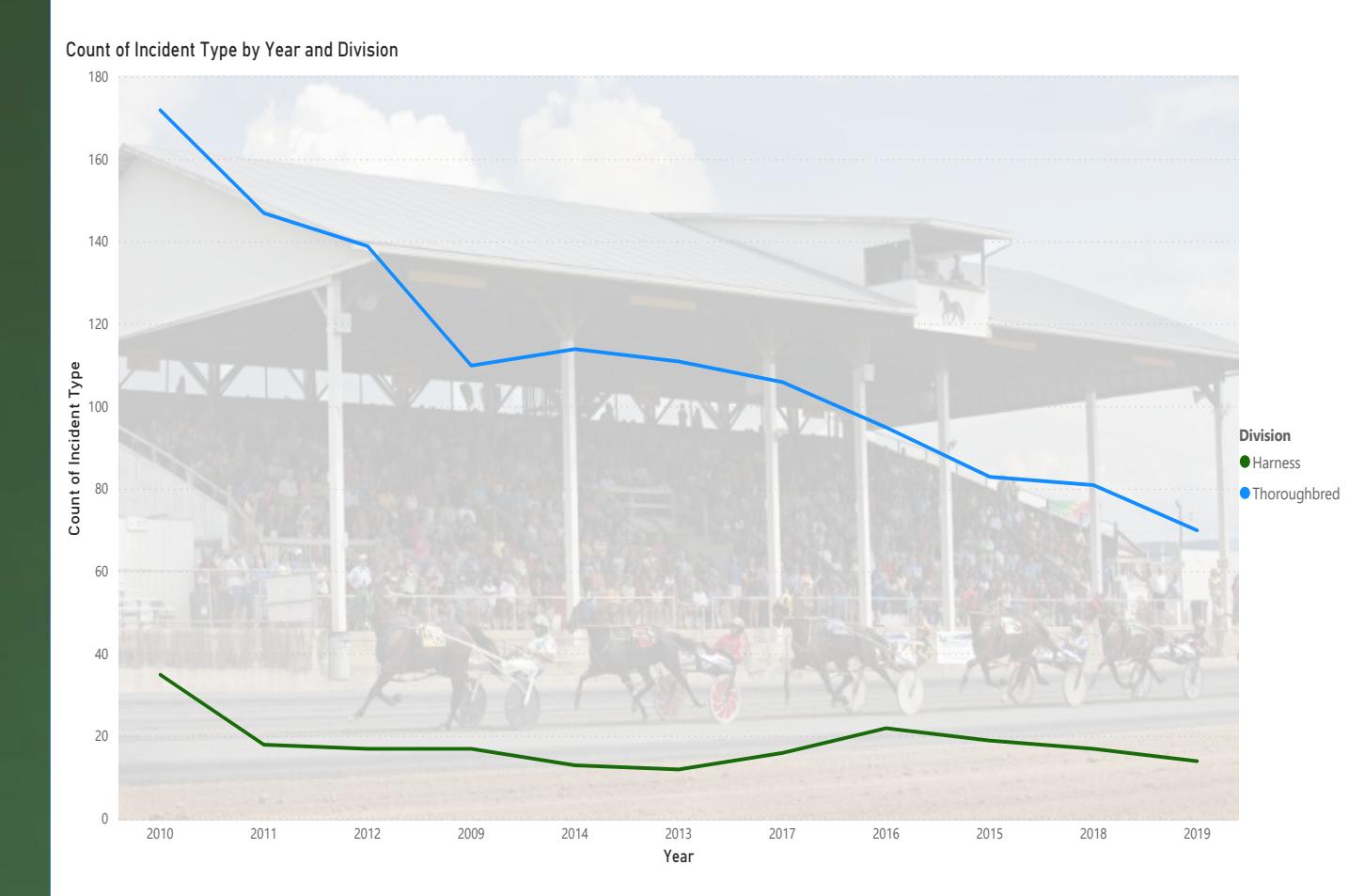
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STAT 3

A pie chart titled "Single Dimensional: Frequency of Incidents by Track". The chart is divided into several segments of different colors, each representing a different track. The tracks and their approximate proportions are: Belmont Park (NYRA) (large purple segment), Aqueduct Racetrack (NYRA) (large teal segment), Yonkers Raceway (light green segment), Monmouth Park (yellow segment), and Batavia Downs (very small yellow segment). The labels for the tracks are placed directly next to their corresponding pie slices.

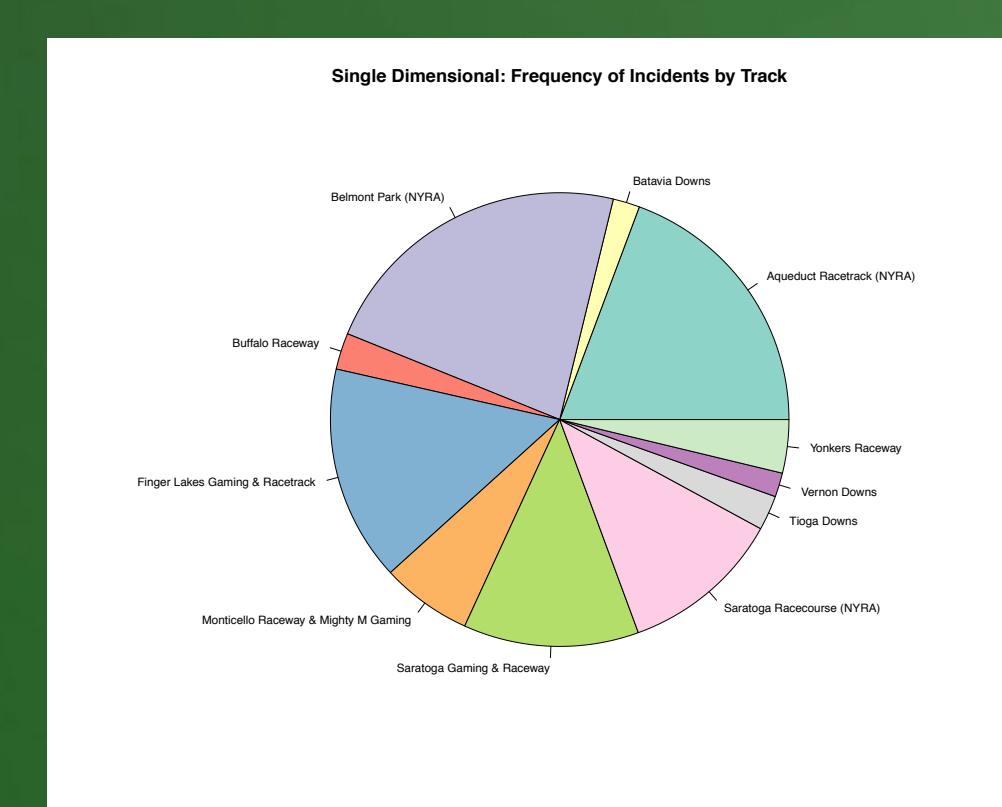
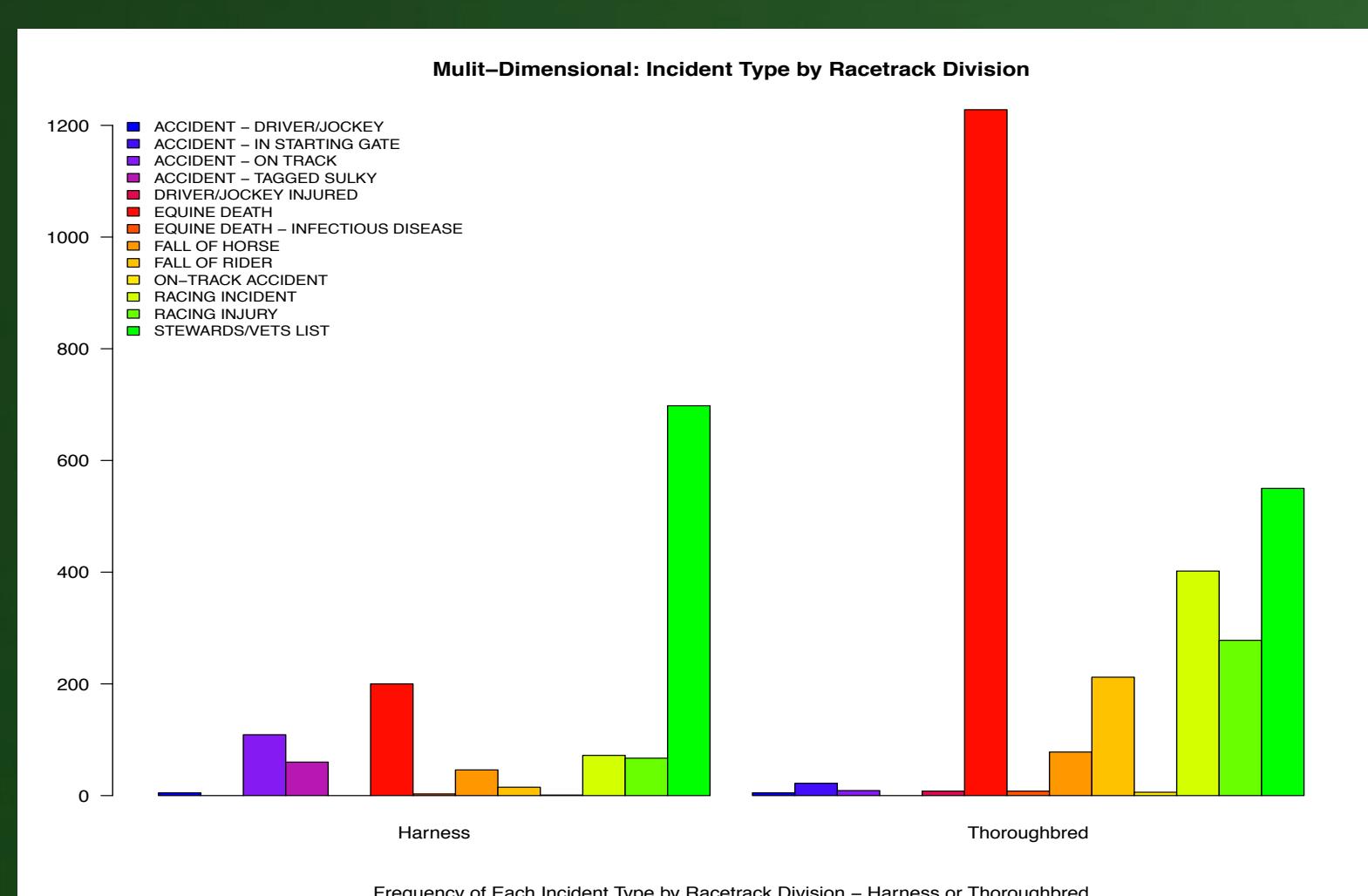
Single Dimensional: Frequency of Incidents by Track

Track	Approximate Proportion
Belmont Park (NYRA)	Large (purple)
Aqueduct Racetrack (NYRA)	Large (teal)
Yonkers Raceway	Medium (light green)
Monmouth Park	Small (yellow)
Batavia Downs	Very Small (yellow)

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*Source: New York State Government
Equine Death and Breakdown
Updated 2/18/2020*

Date Created: 2/20/2013
Dataset Owner: Division of Horse Racing and Pari-Mutuel Wagering
4148 Rows
13 Columns



Tracking the Danger Zone

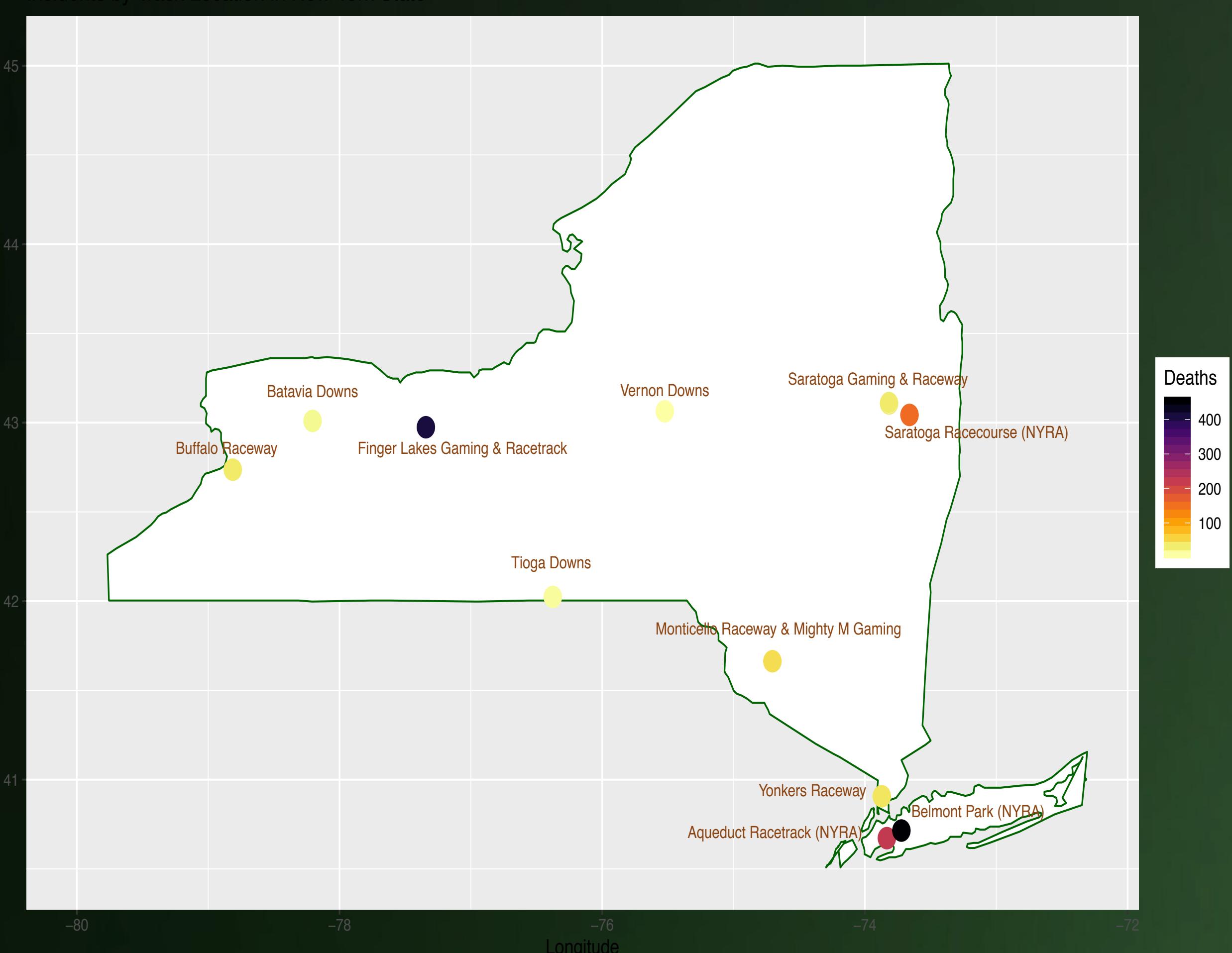
STAT 1 STAT 2 STAT 3

Danger of Horse Racing in New York State

Incident types include: ACCIDENT - DRIVER/JOCKEY, ACCIDENT - IN STARTING GATE, ACCIDENT - ON TRACK, ACCIDENT - TAGGED SULKY, DRIVER/JOCKEY INJURED, EQUINE DEATH, EQUINE DEATH - INFECTIOUS DISEASE, FALL OF HORSE, FALL OF RIDER, ON-TRACK ACCIDENT, RACING INCIDENT, RACING INJURY, STEWARDS/VETS LIST.

Heading

Incidents by Track Location in New York State

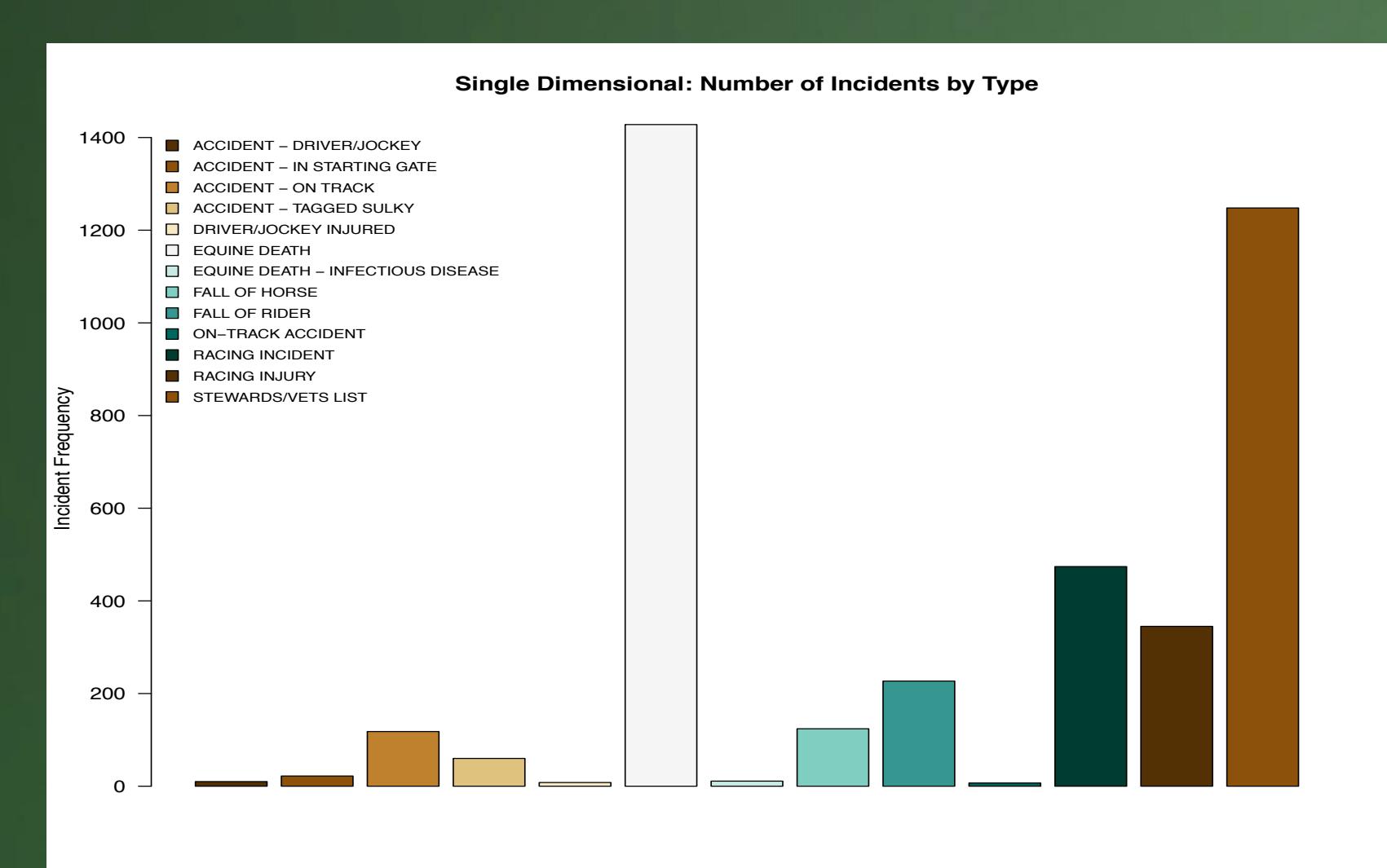
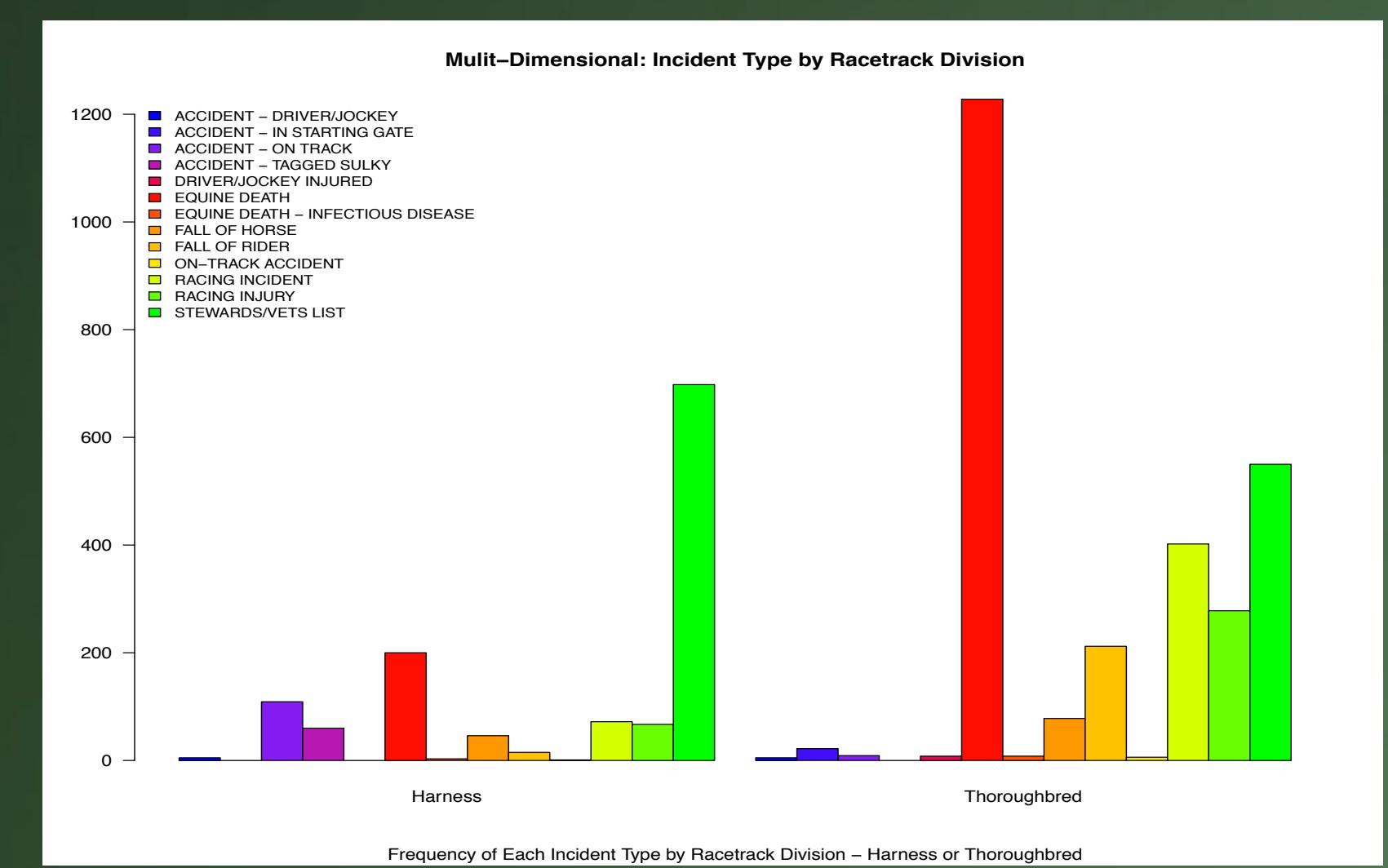


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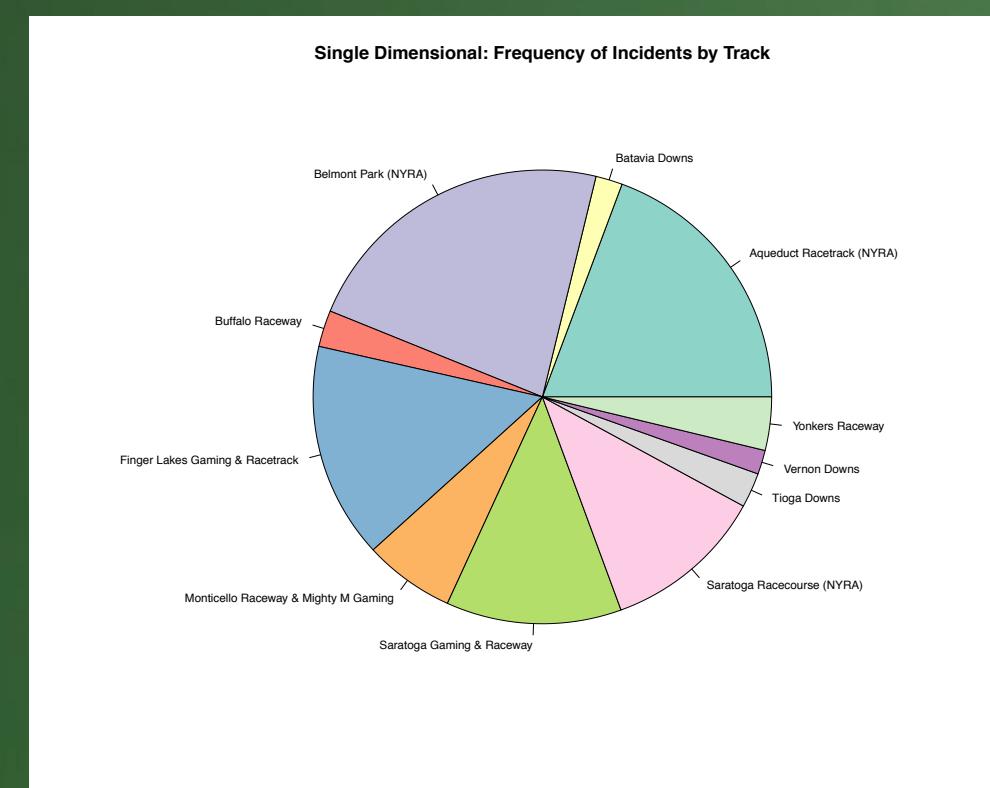
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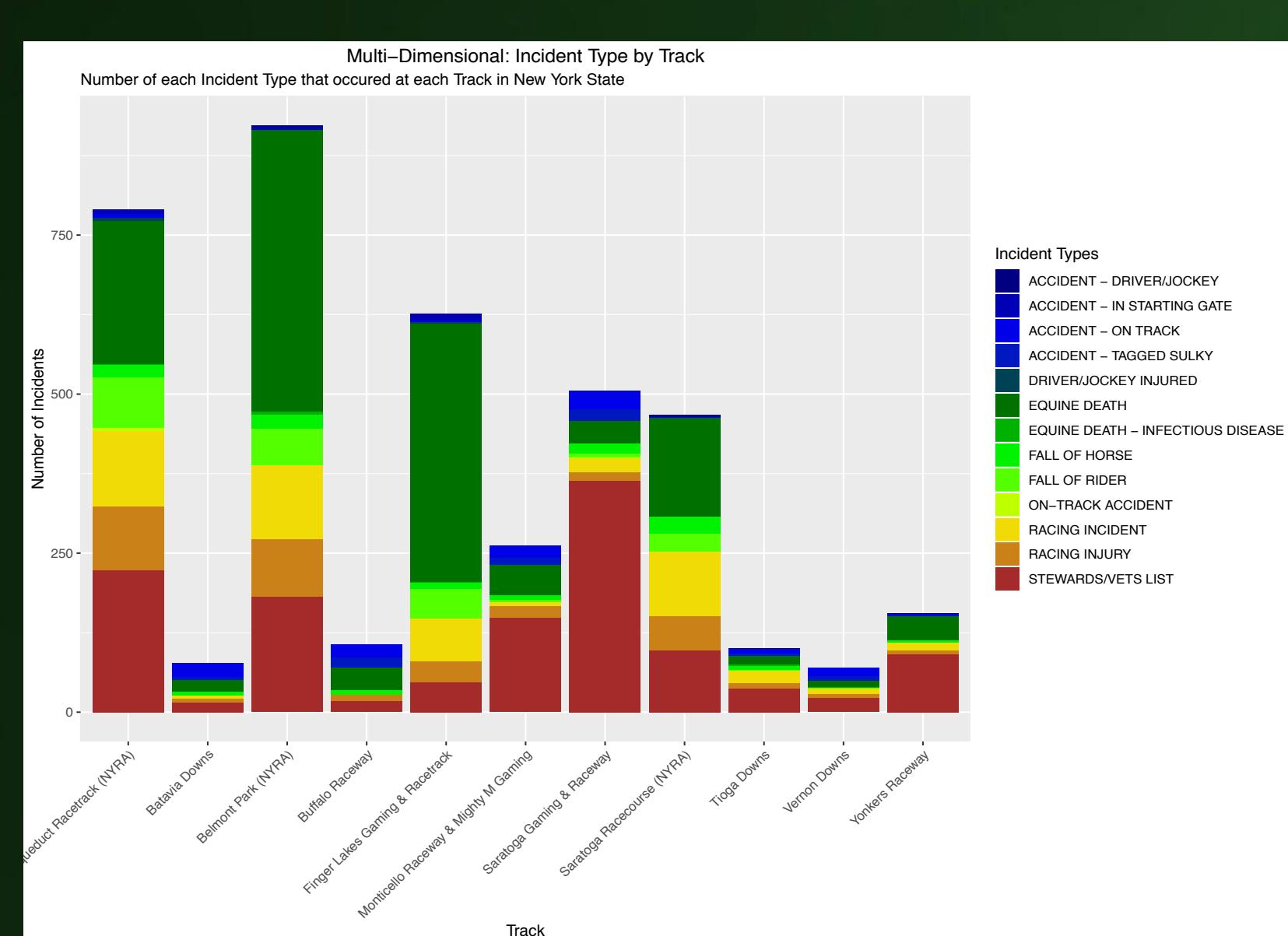
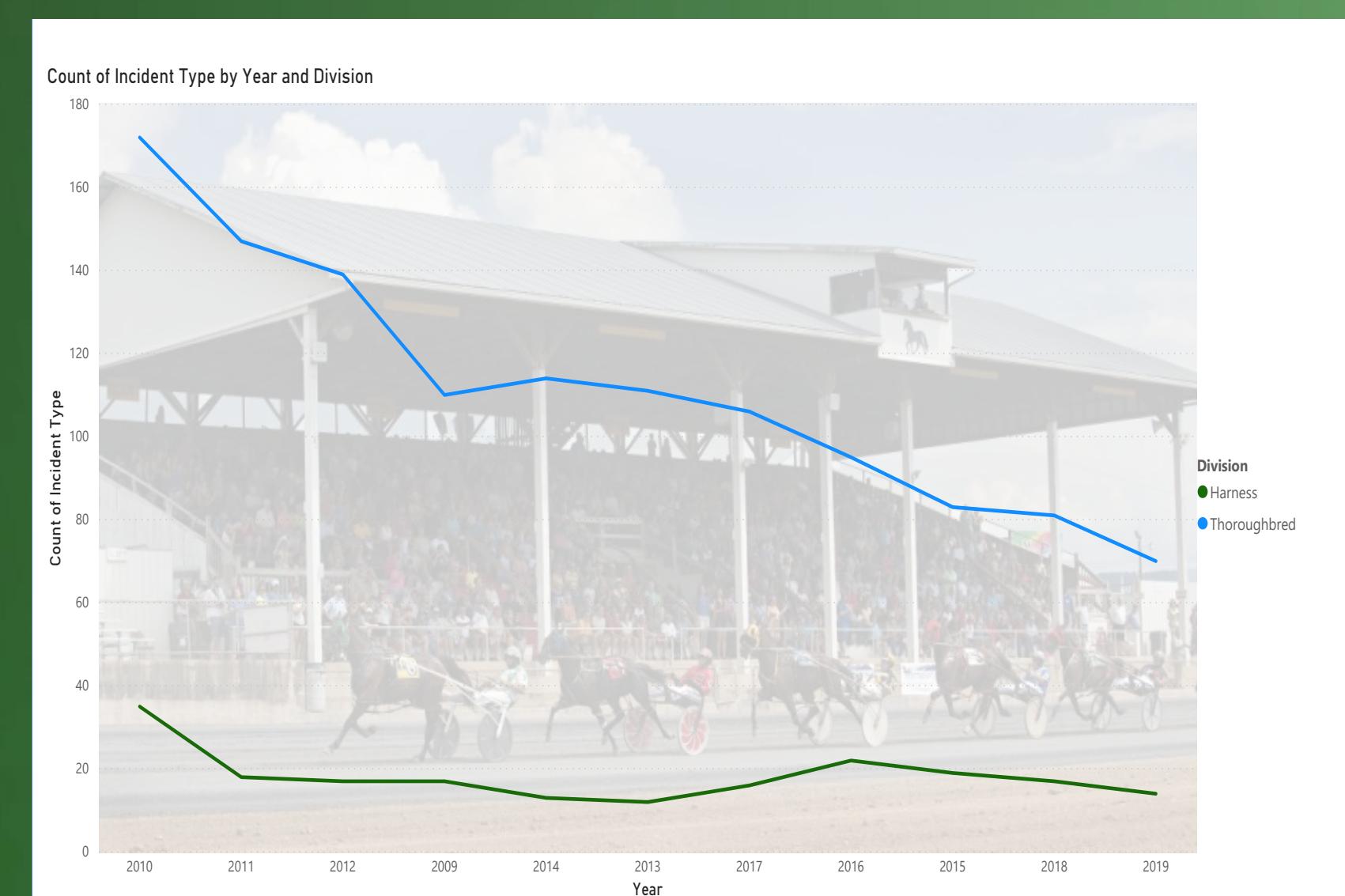
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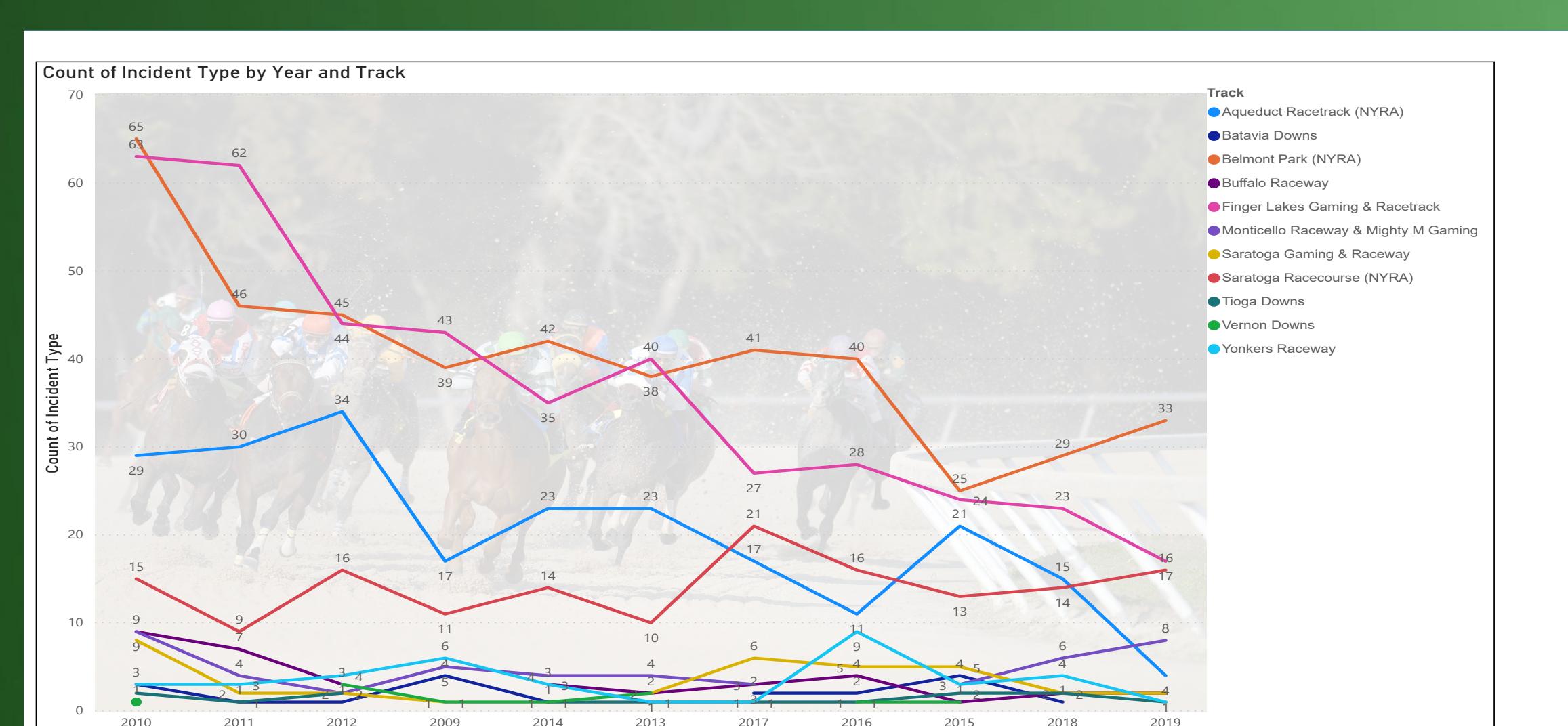
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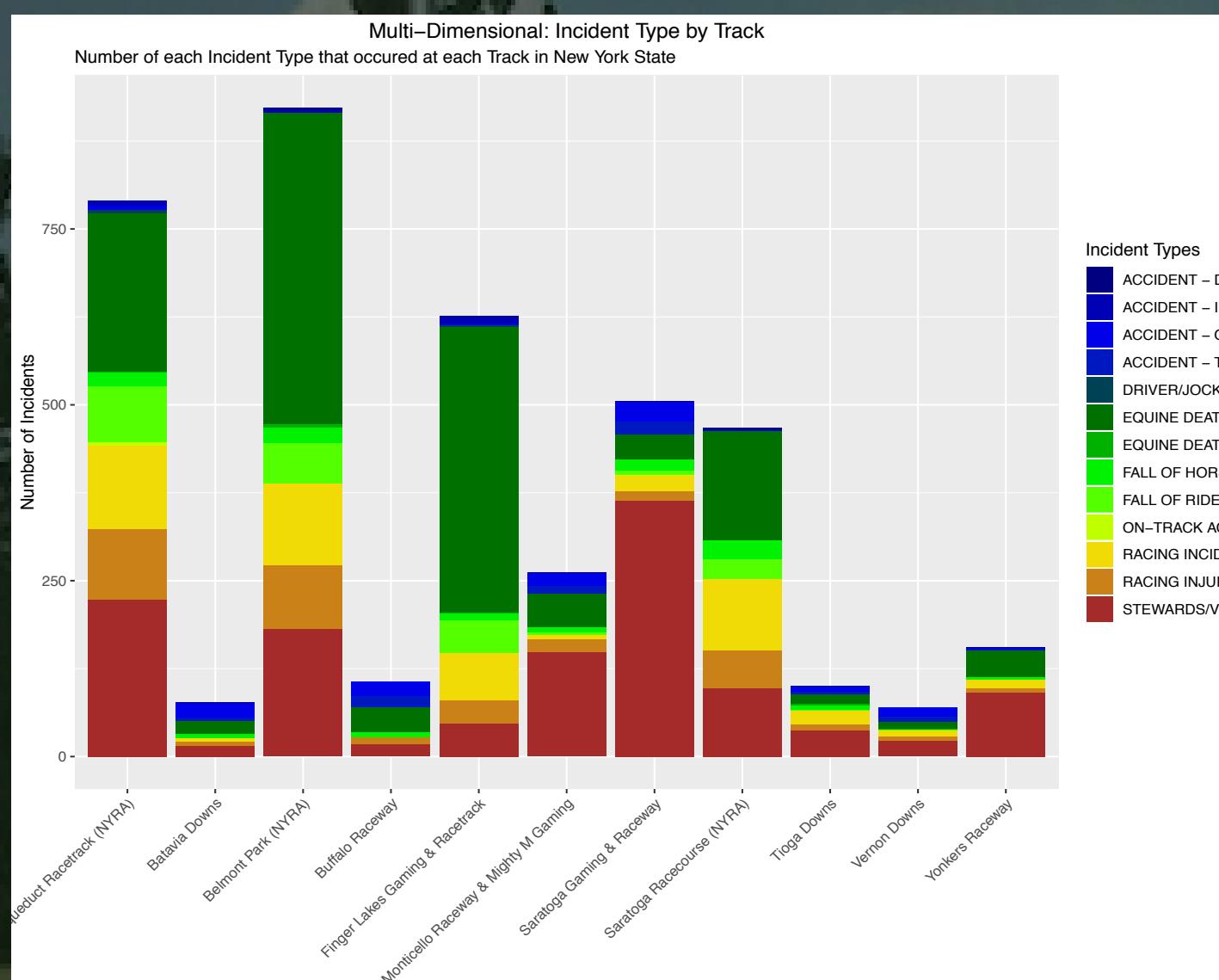
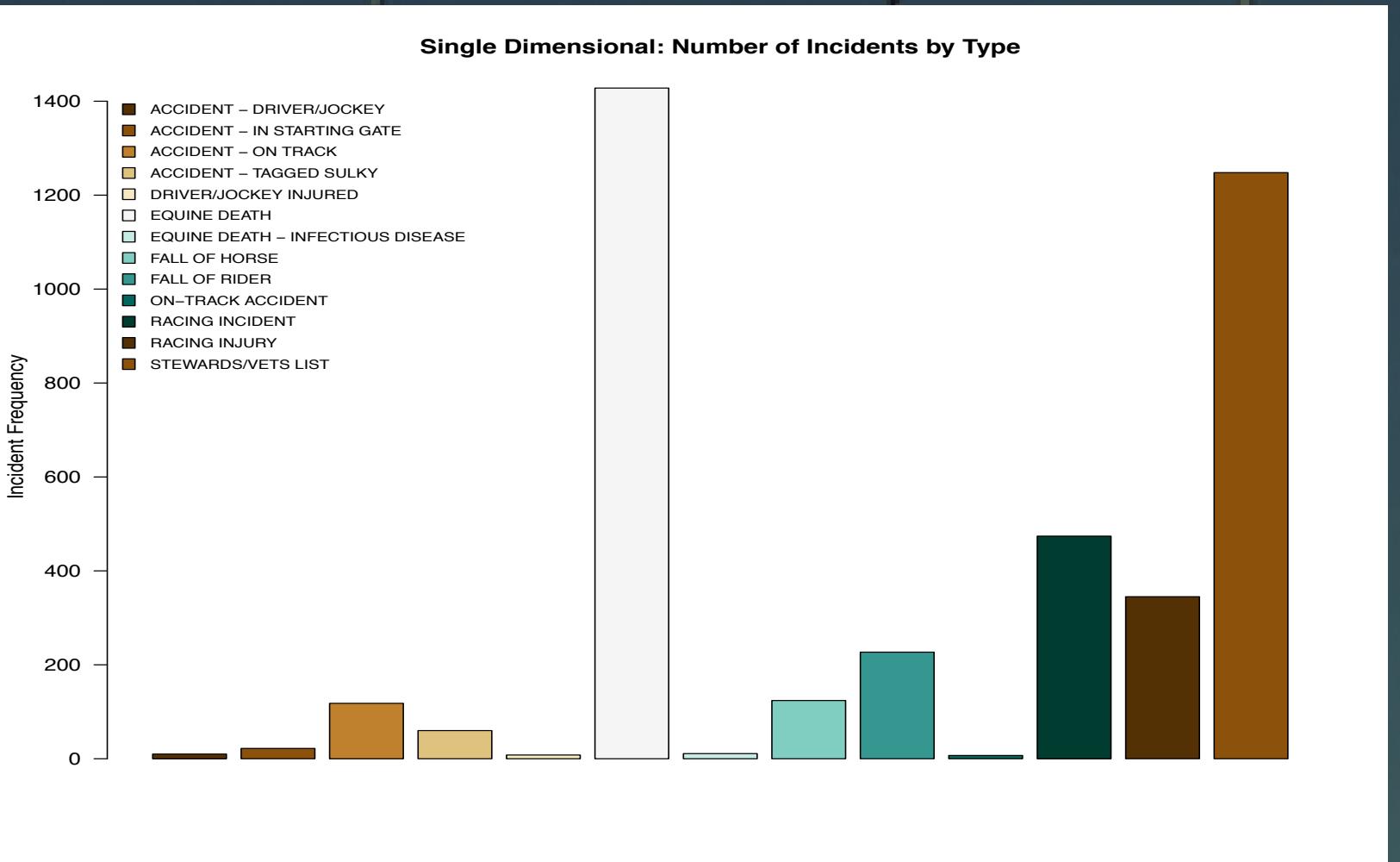
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Incidents at NY Tracks



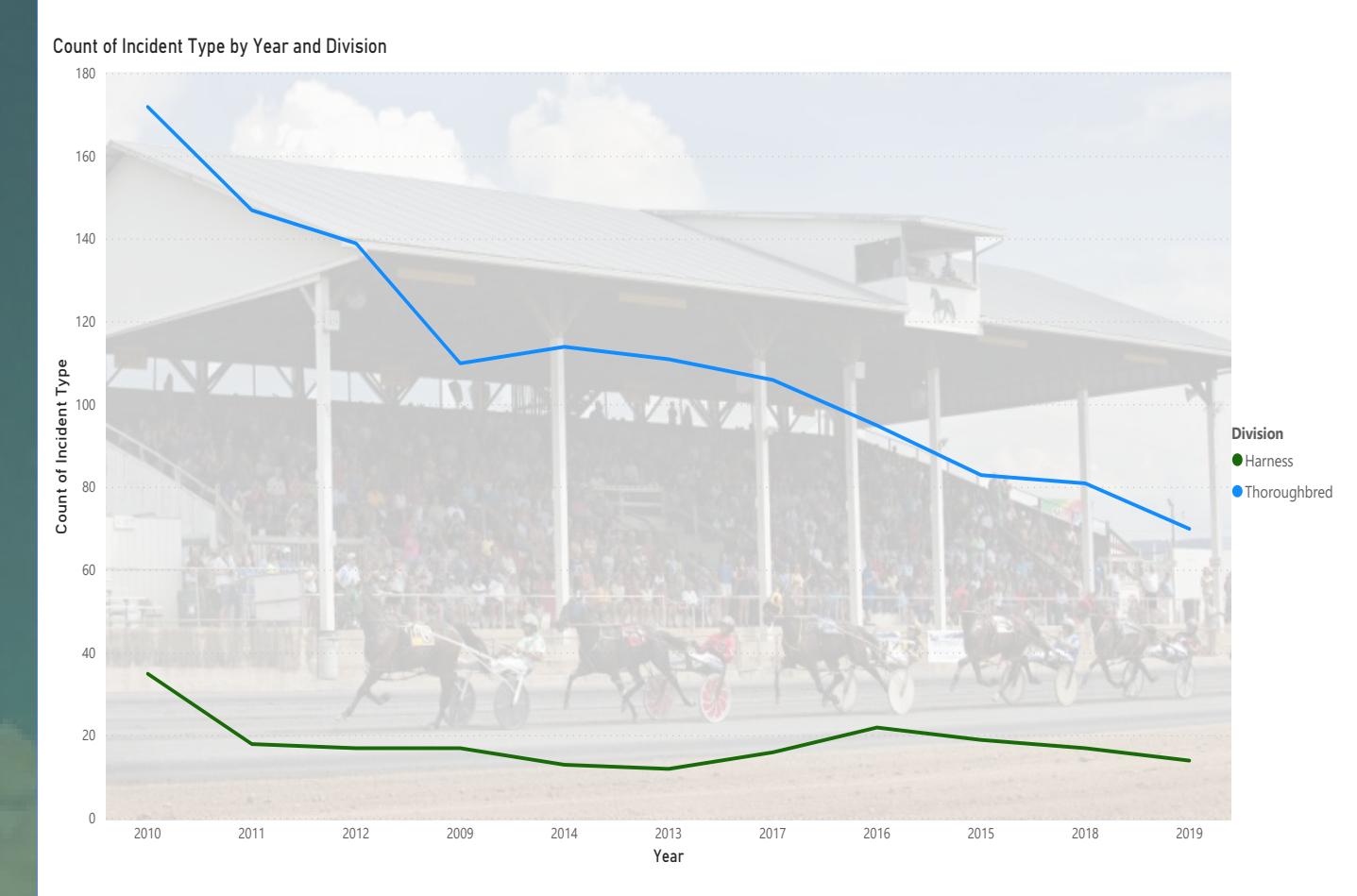
The Data

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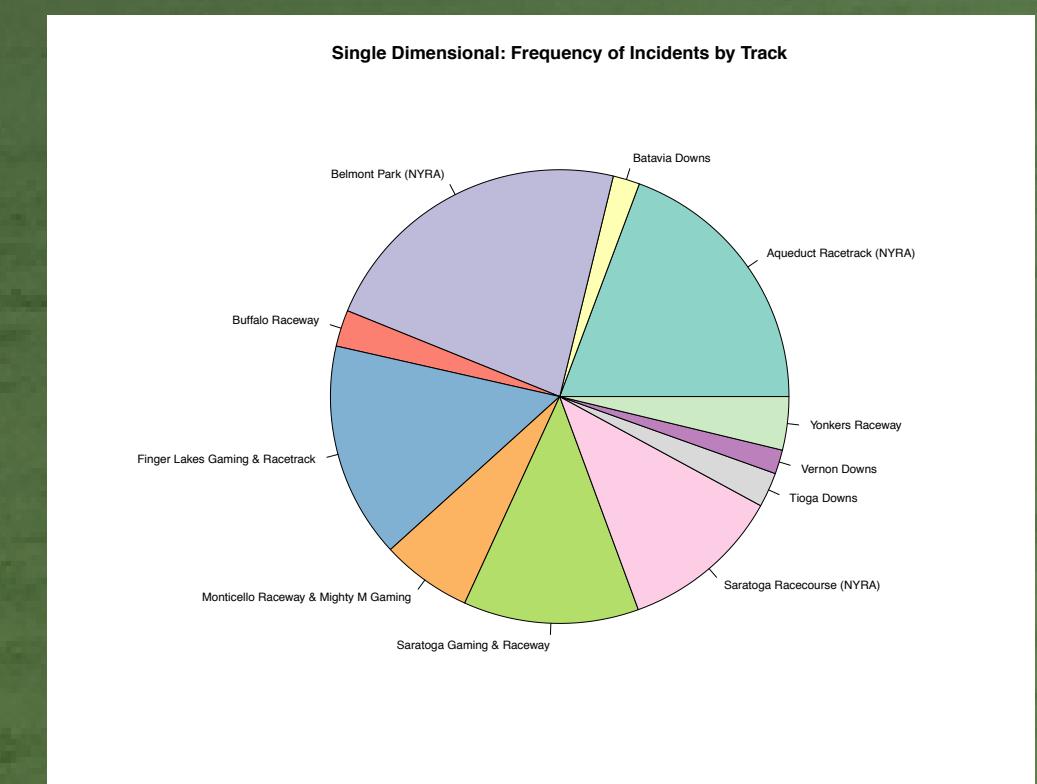
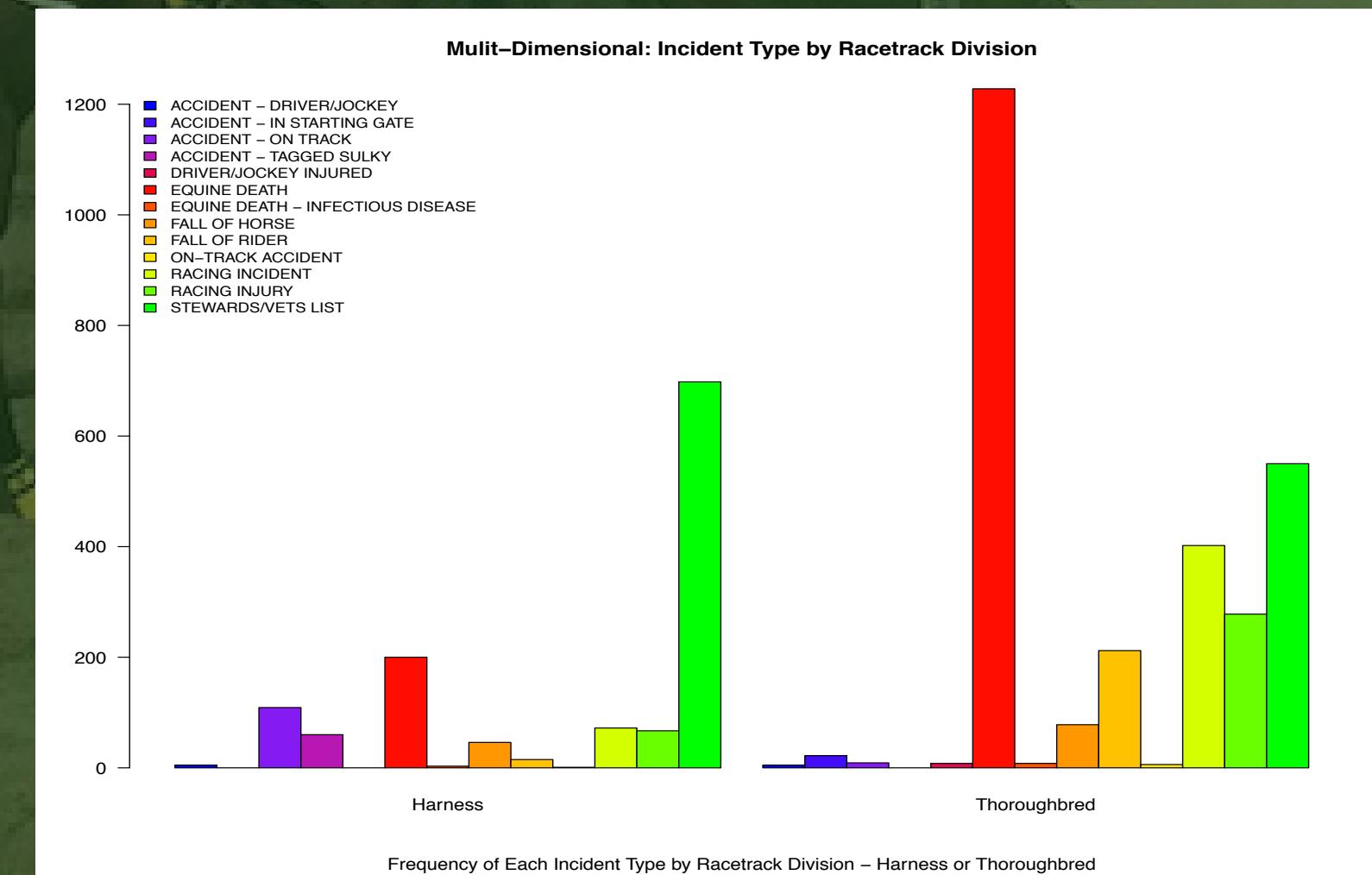


STAT 3

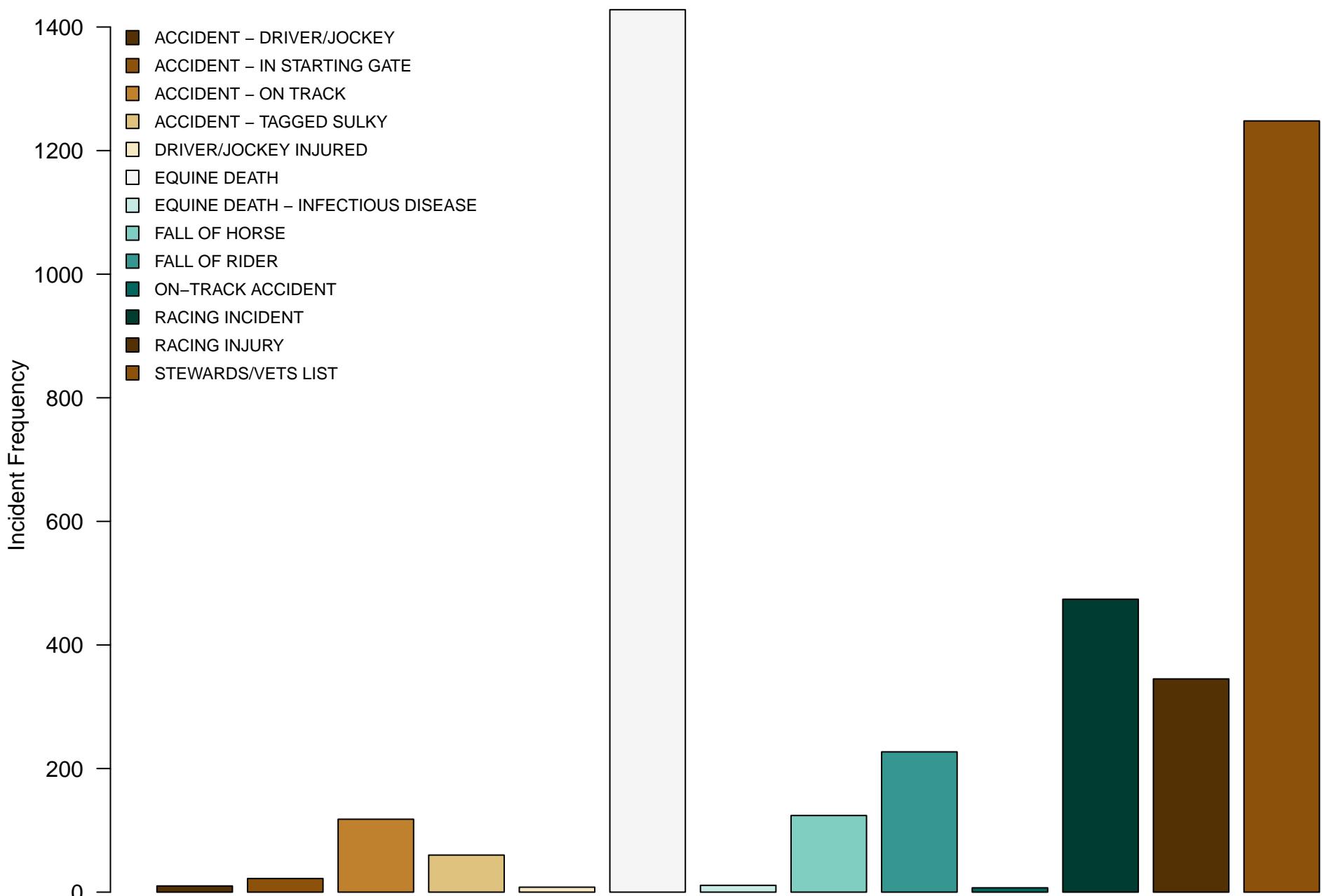
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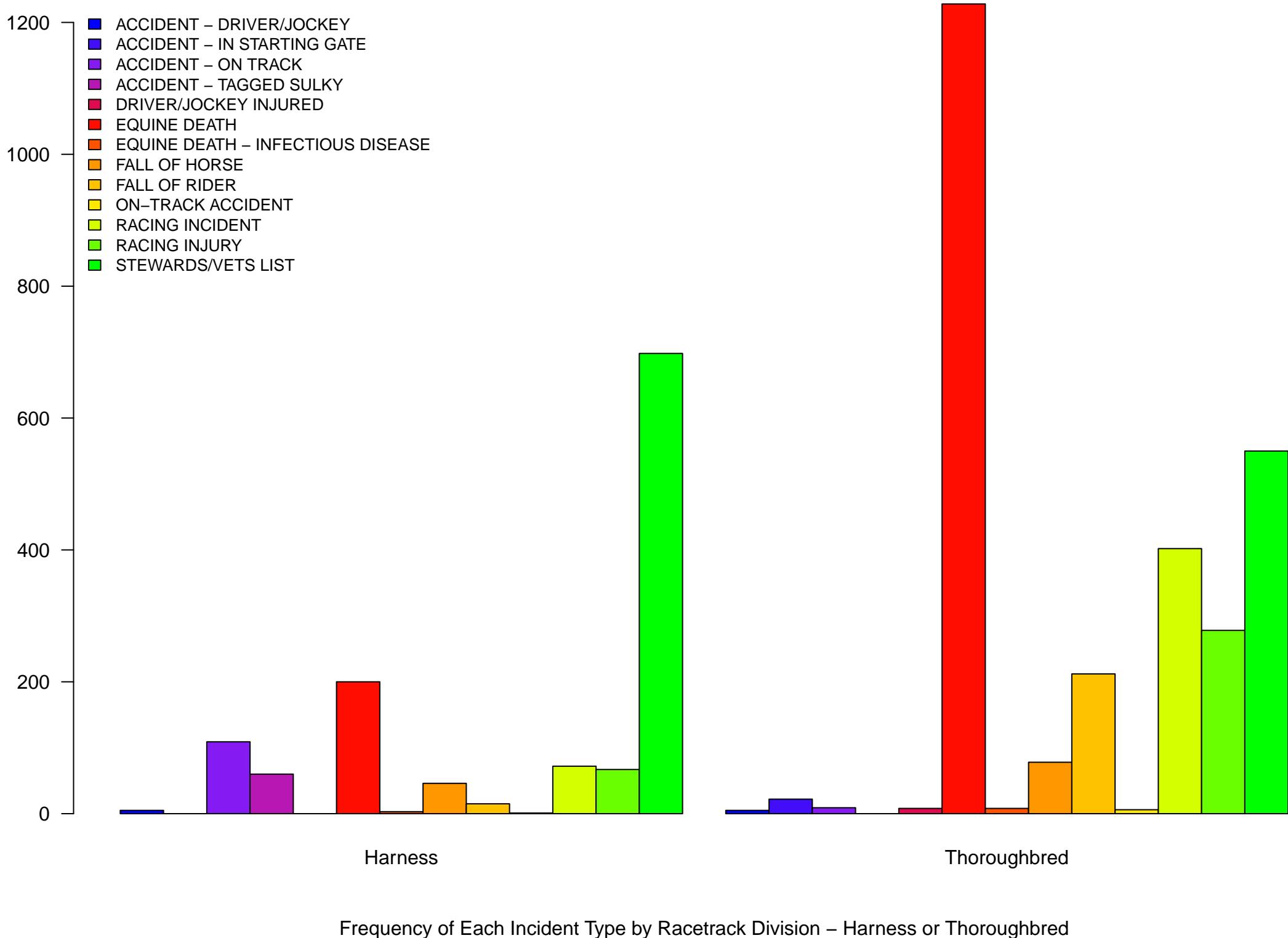
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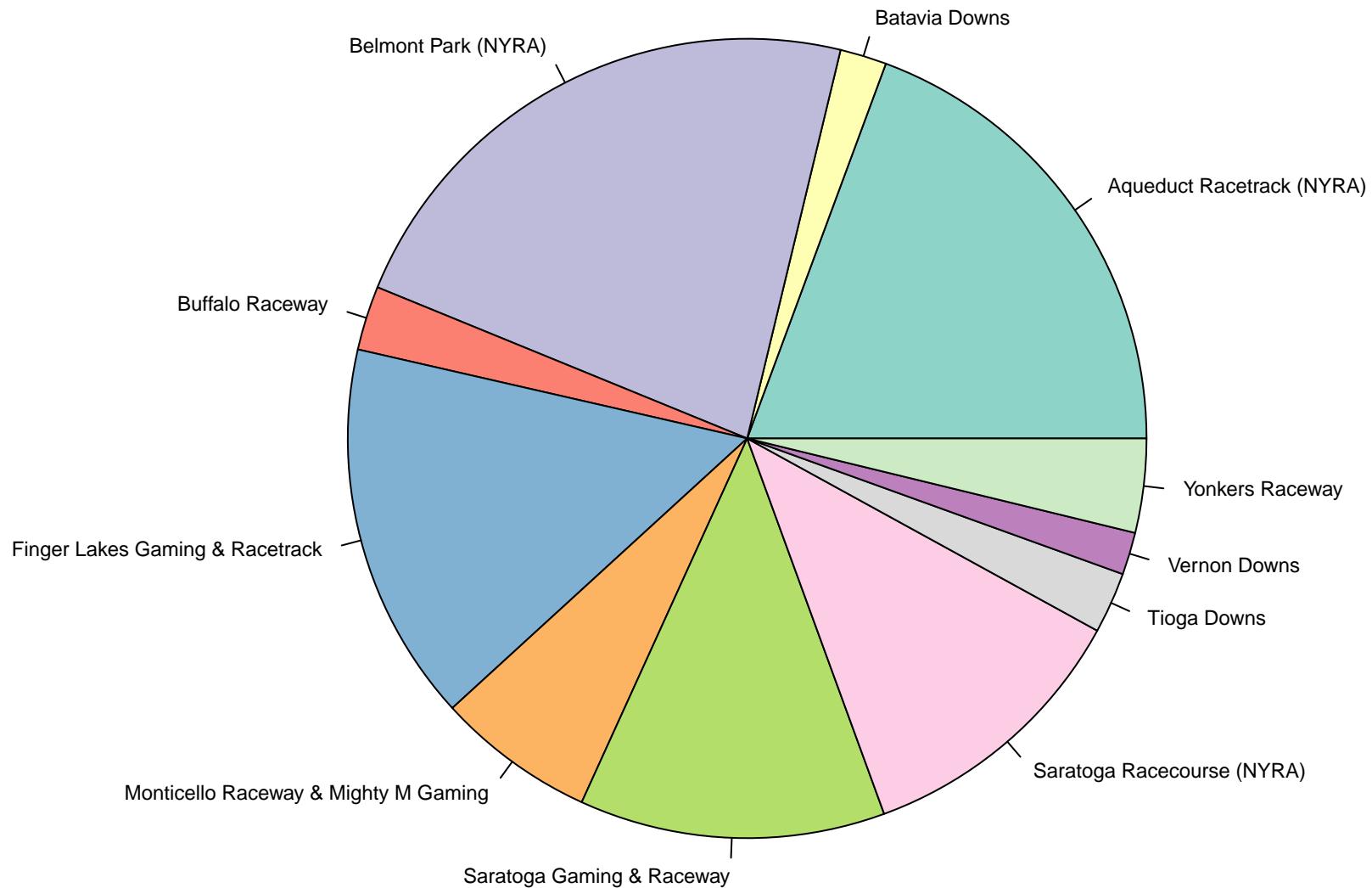
Single Dimensional: Number of Incidents by Type



Mulit-Dimensional: Incident Type by Racetrack Division

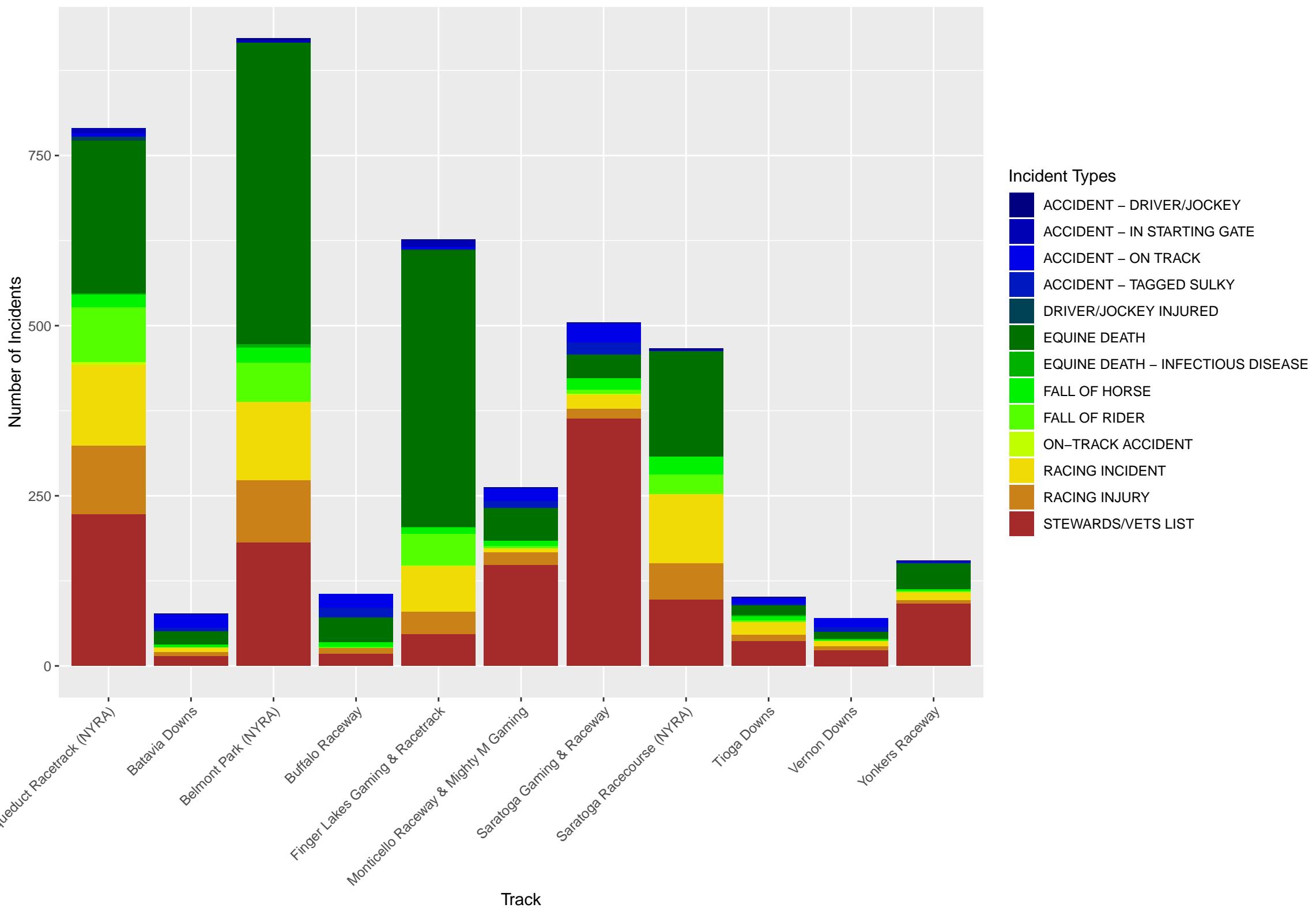


Single Dimensional: Frequency of Incidents by Track

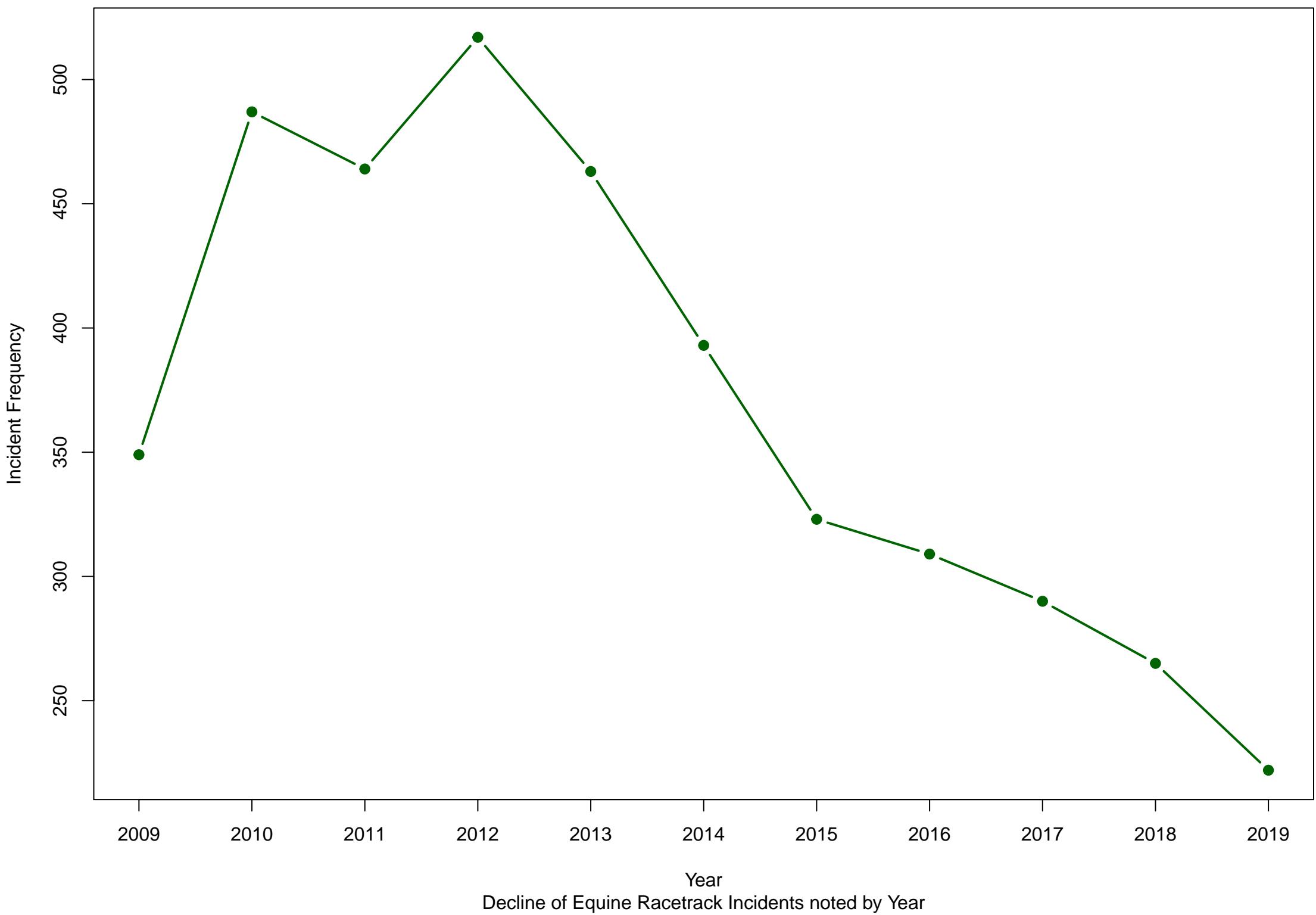


Multi-Dimensional: Incident Type by Track

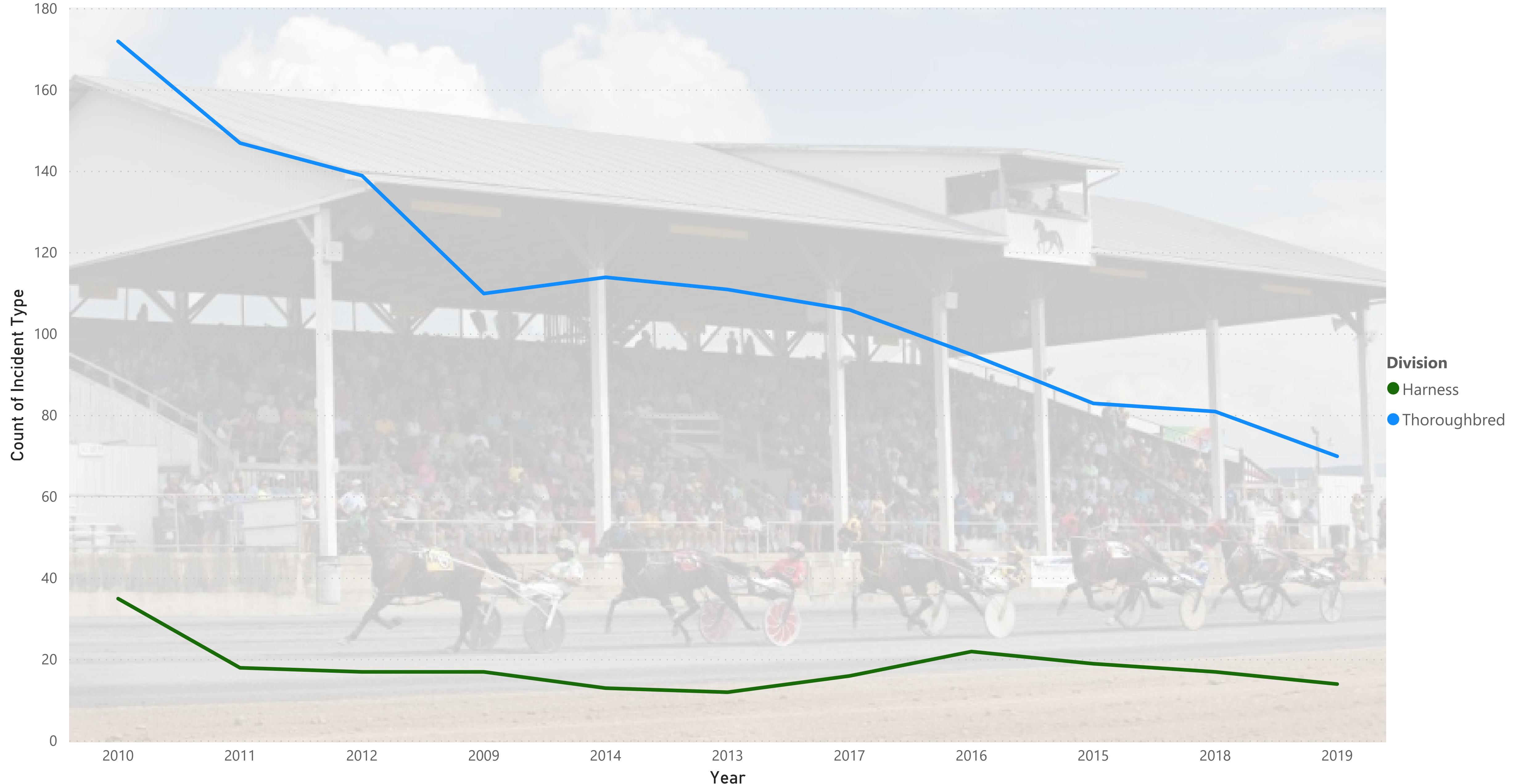
Number of each Incident Type that occurred at each Track in New York State



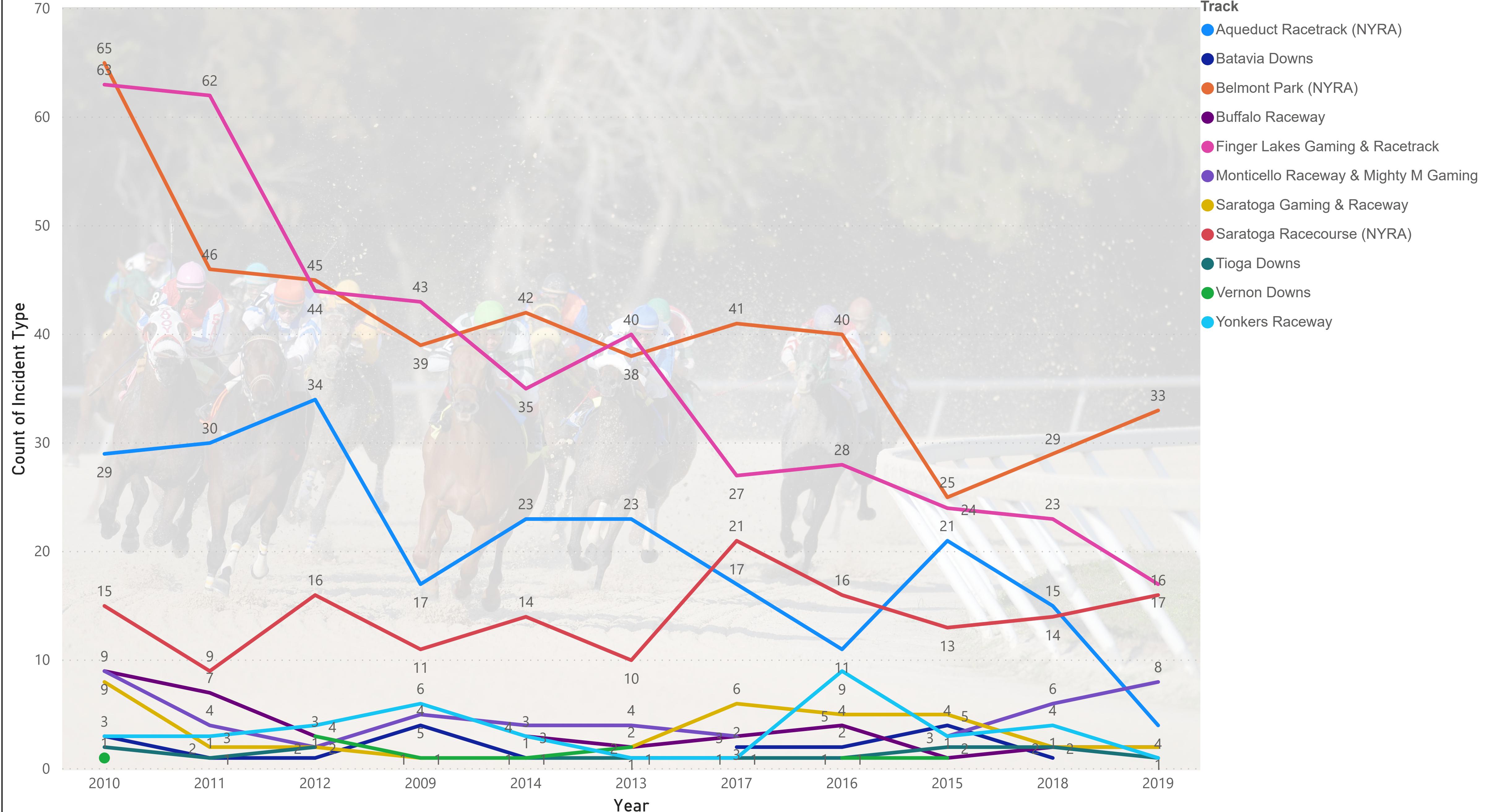
Single Dimensional: Racetrack Incidents by Year



Count of Incident Type by Year and Division



Count of Incident Type by Year and Track



Incidents by Track Location in New York State

