

Injury Analysis

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Loading libraries

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source("setupCarmen.R")
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Hypothesis

The third hypothesis we are looking predicts that sports with high instances of injury will also have steady declines in participation.

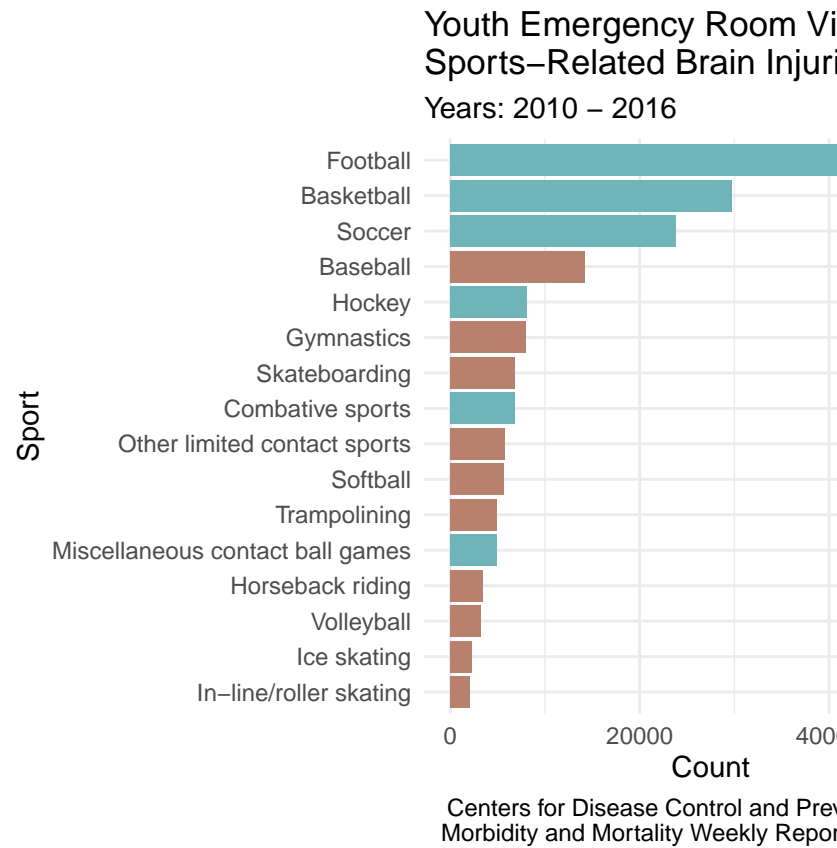
Data

The data used are as follows:

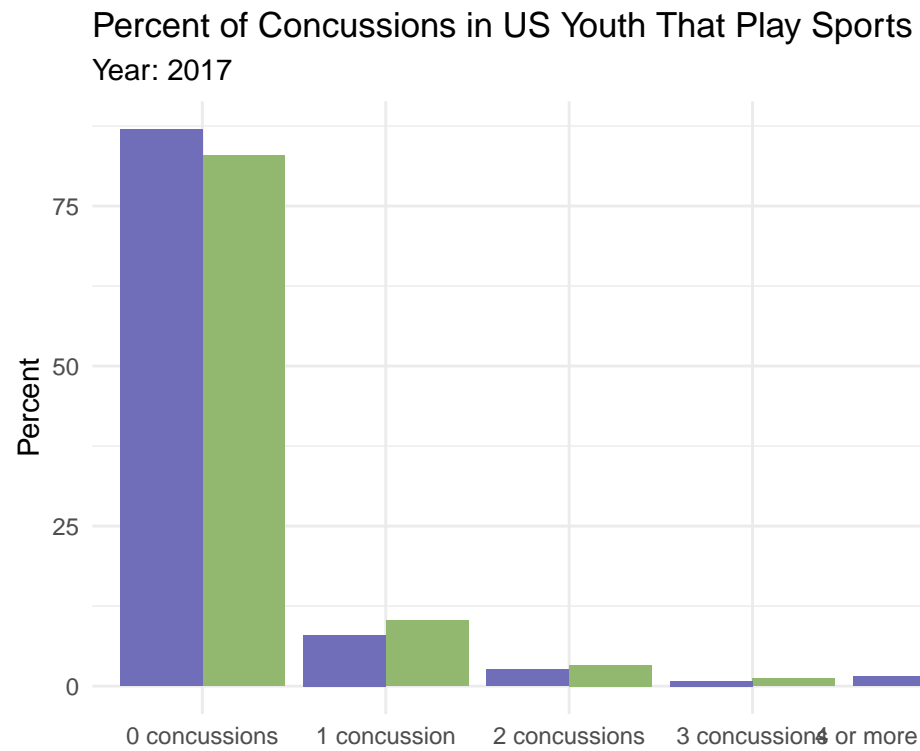
- Youth emergency visits among US children for sports-related brain injuries from 2010-2016
- US annual average emergency department visits for all sports injuries 2010-2016
- US emergency department visits ages 5 to 24 from 2010 to 2016 by gender and activity
- Percent of concussions in US youth that play sports as of 2017
- Survey on the long-term effects of concussions in sports
- Average annual number of US college female sports injuries during the fall season from 2009 to 2014
- Average annual number of US college male sports injuries during the fall season from 2009 to 2014
- Average annual number of US college for all seasons from 2009 to 2014 by gender
- High School Participation Archive
- Program for Injury Prevention, Education, & Research

Injuries

How many kids are getting hurt?



What demographics are most affected?

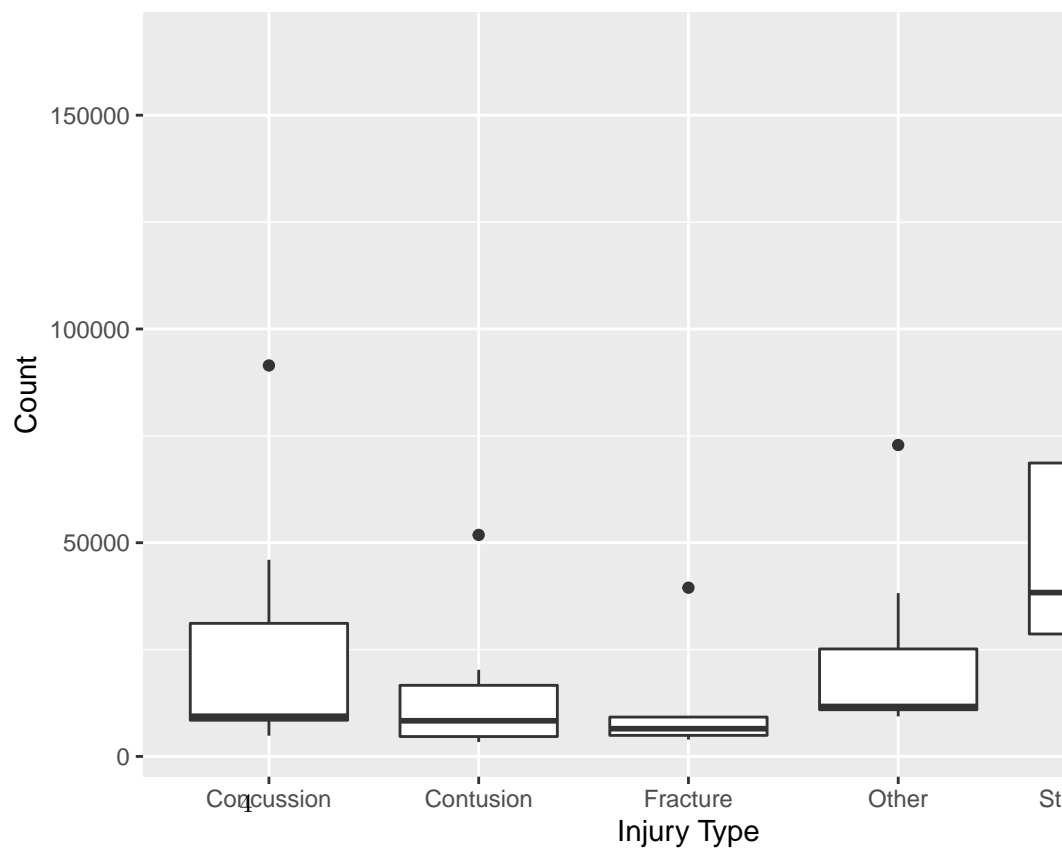
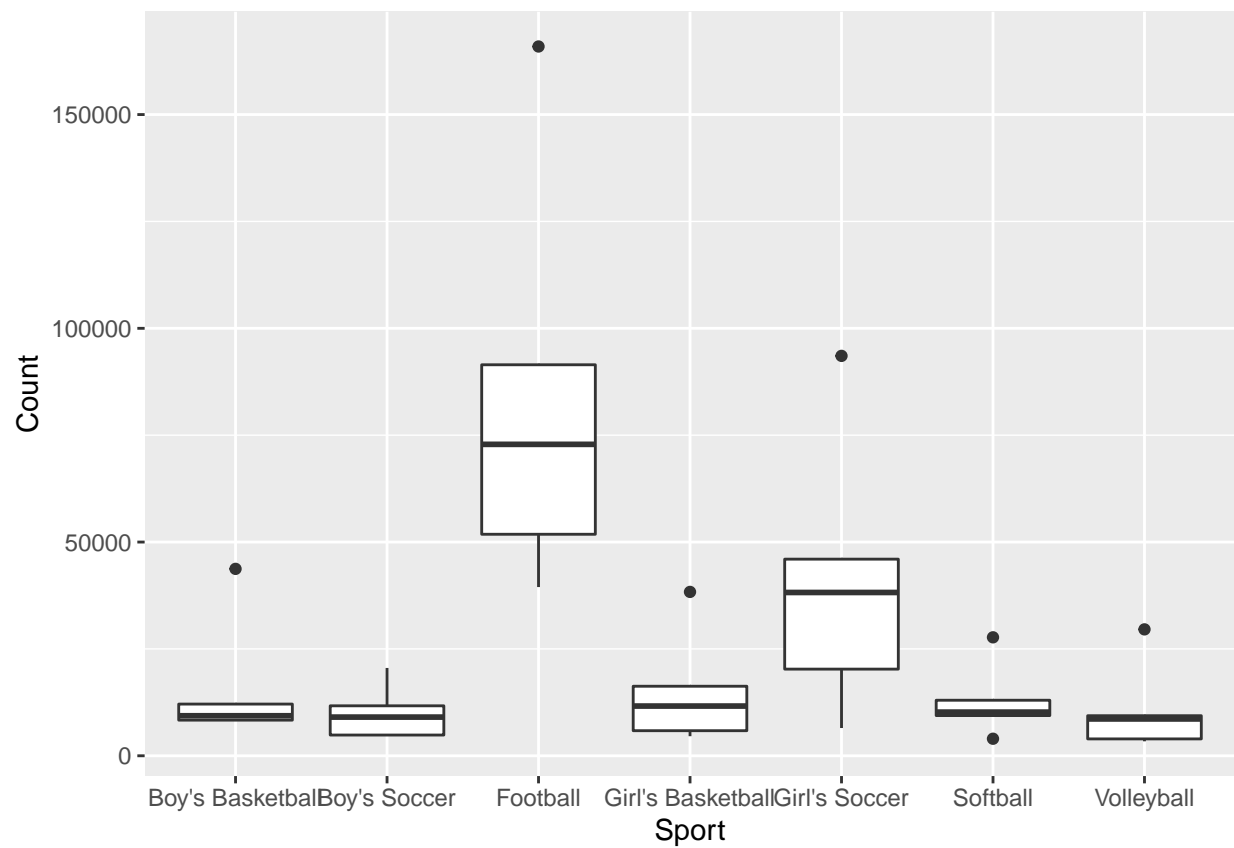


CDC: Self-Reported Concussions from Playing a Sport or Being Physically Active
Among High School Students

Bar Graph: Number of concussions by gender

What sports have the most injuries?

Boxplots of injuries by sports

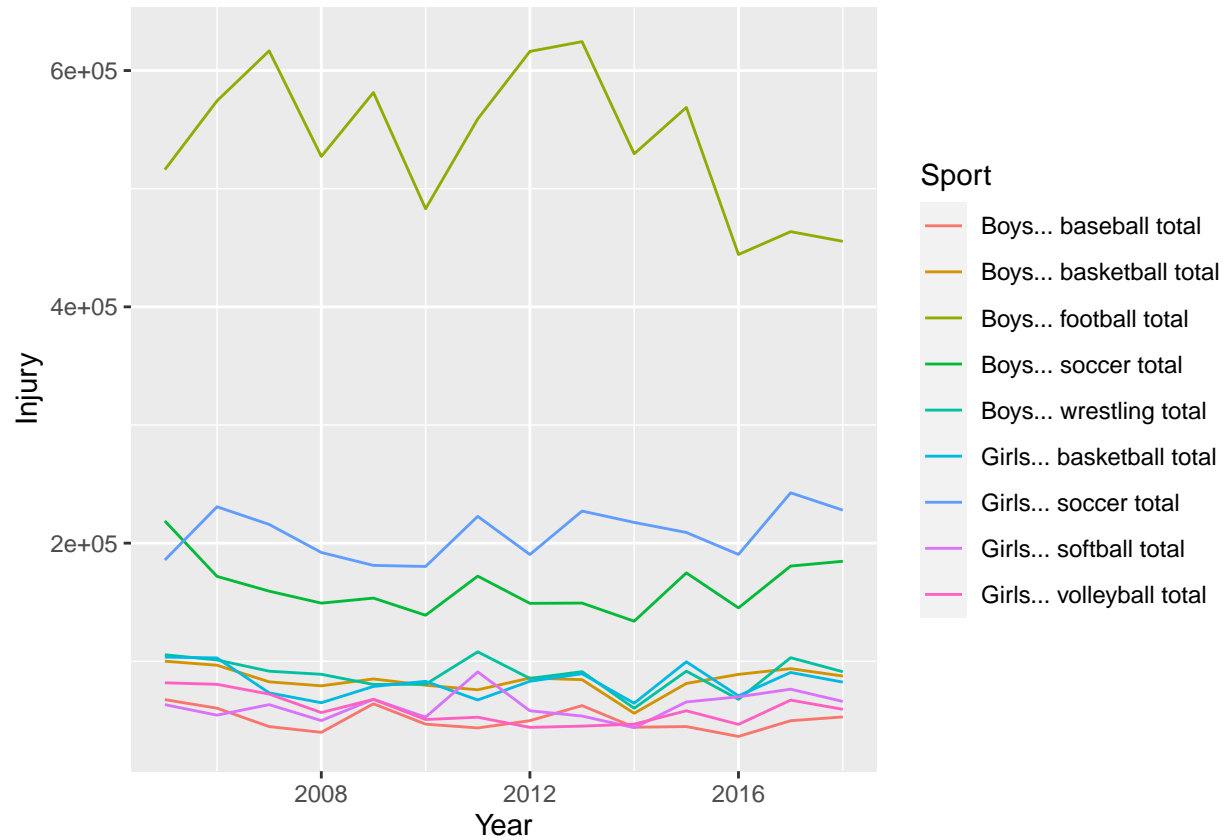


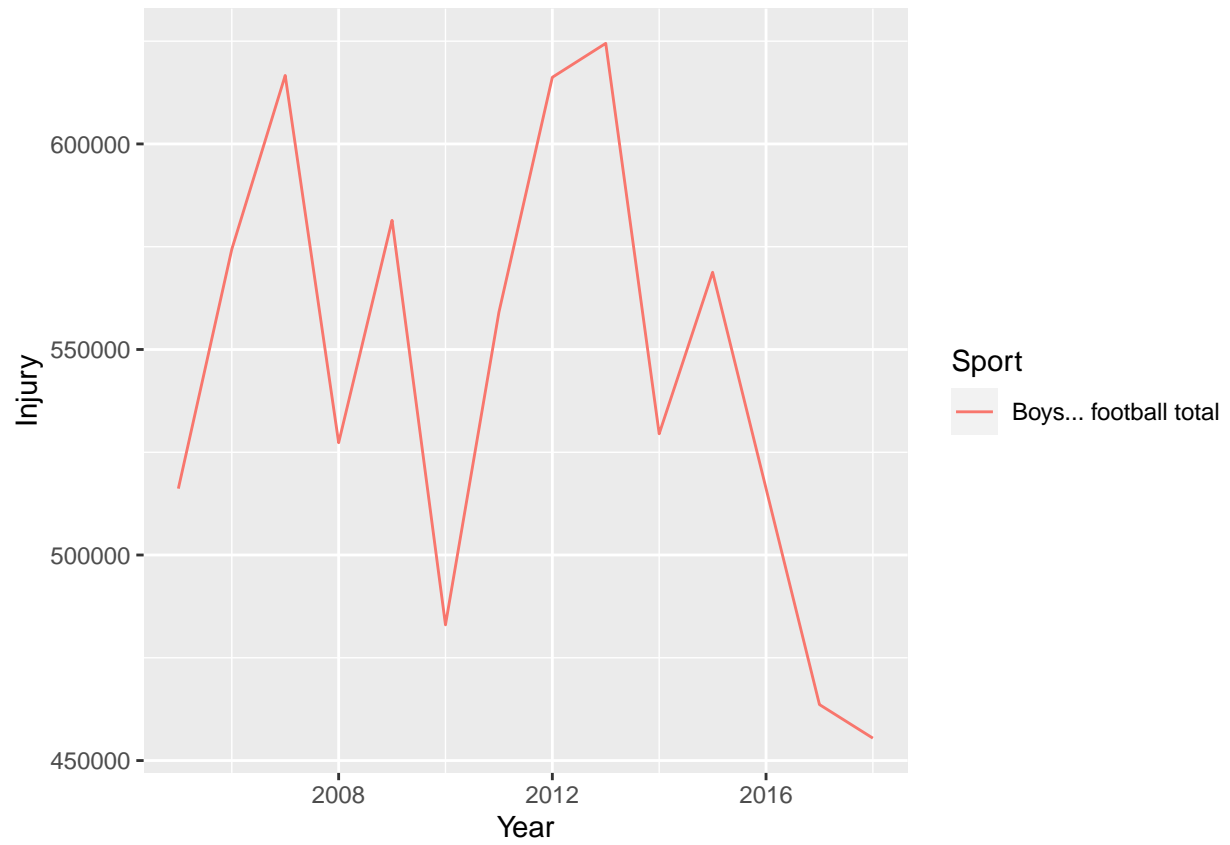
Boxplot of injuries by type

How have injuries rates changed over time?

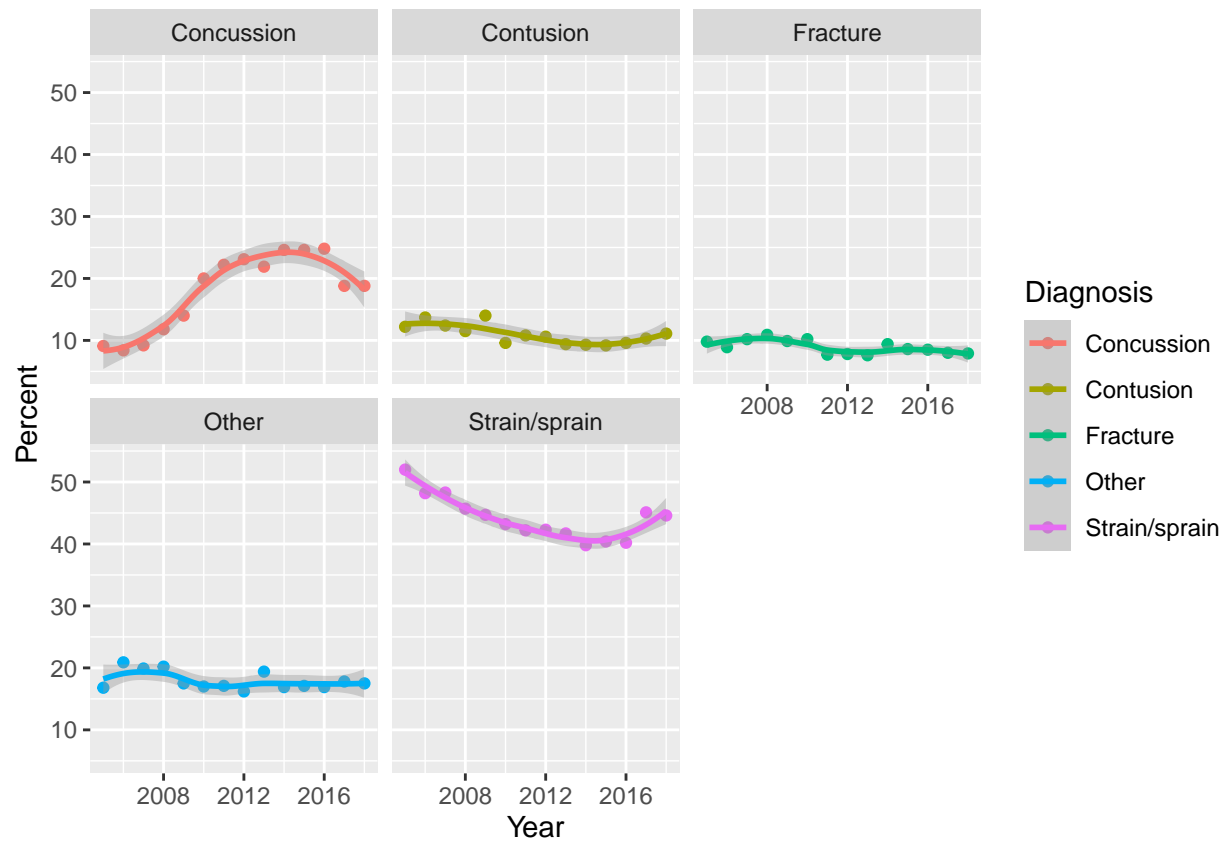
Line charts by sport nat' injury estimates

Shows **DECREASE** in injuries



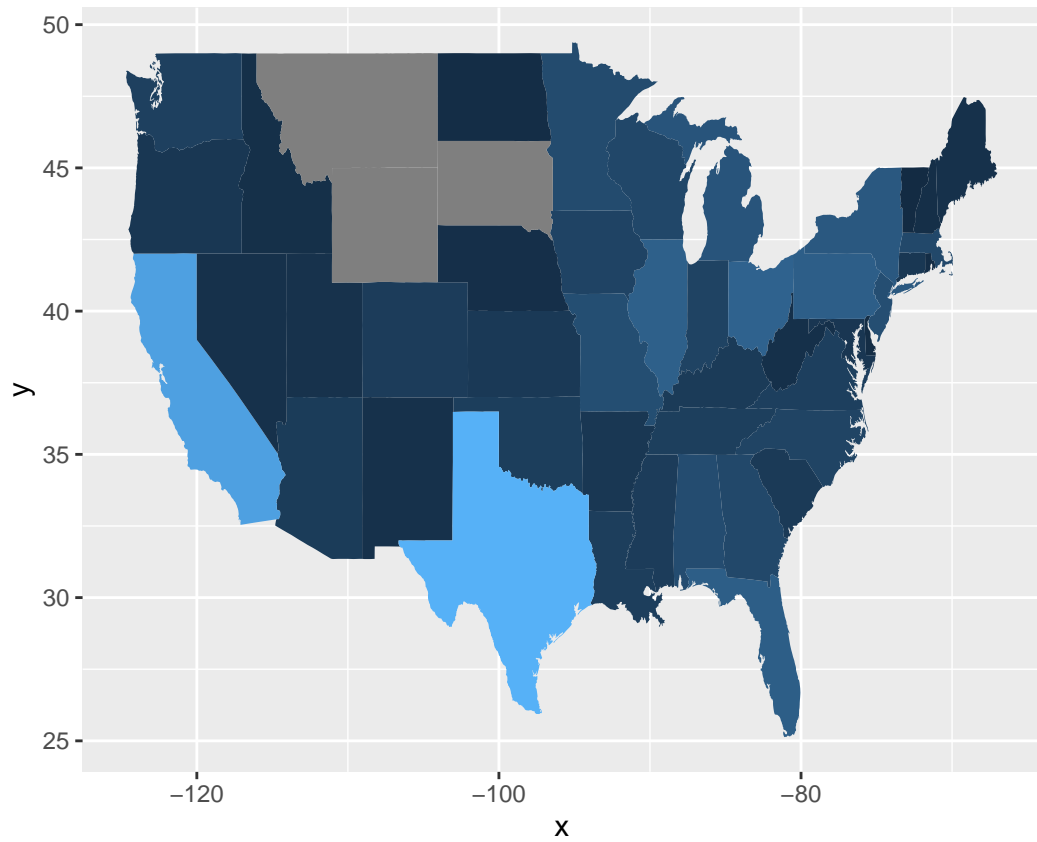


Scatterplot diagnosis by year, color by type



Participation

Who participates in sports?



Choropleth map of participation

Bar chart of participation by gender

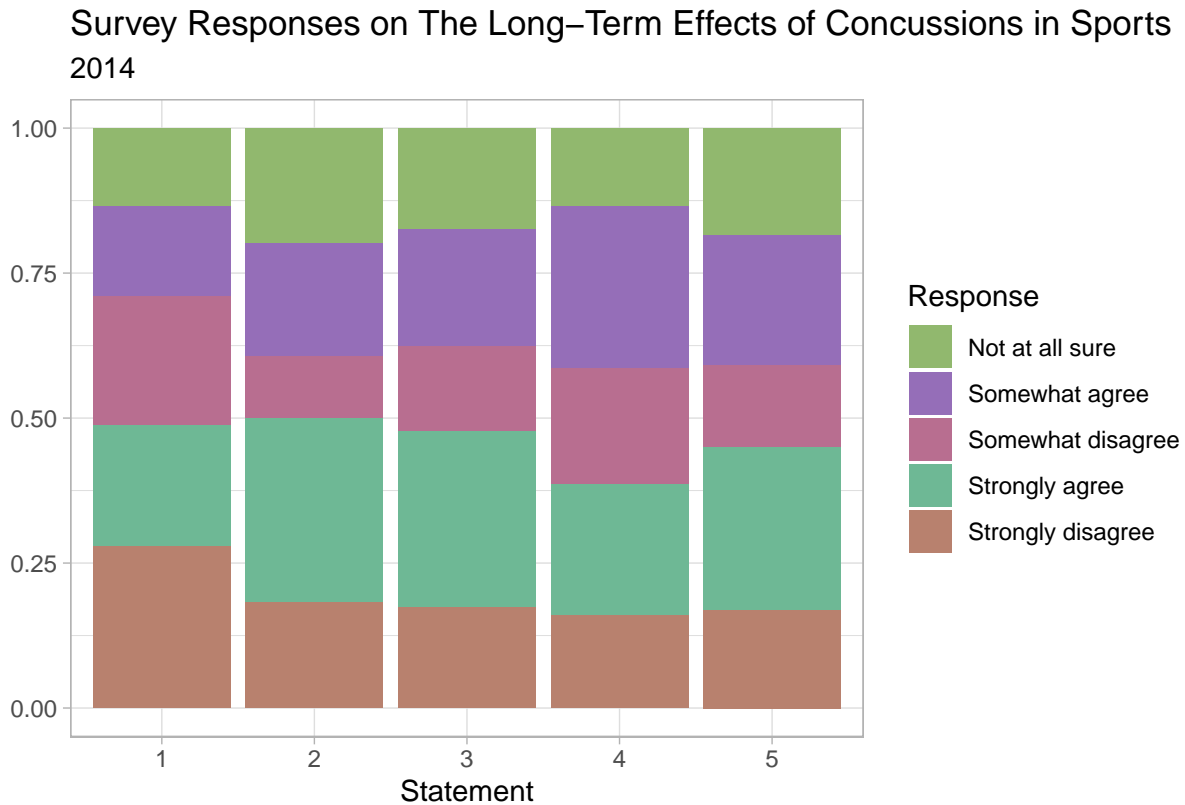
How many people participate in sports?

Line graph of sports

Conclusion

Injuries and participation over time

Stacked Bar Graph: Public opinion



Source: Harris Interactive | The Harris Poll #92