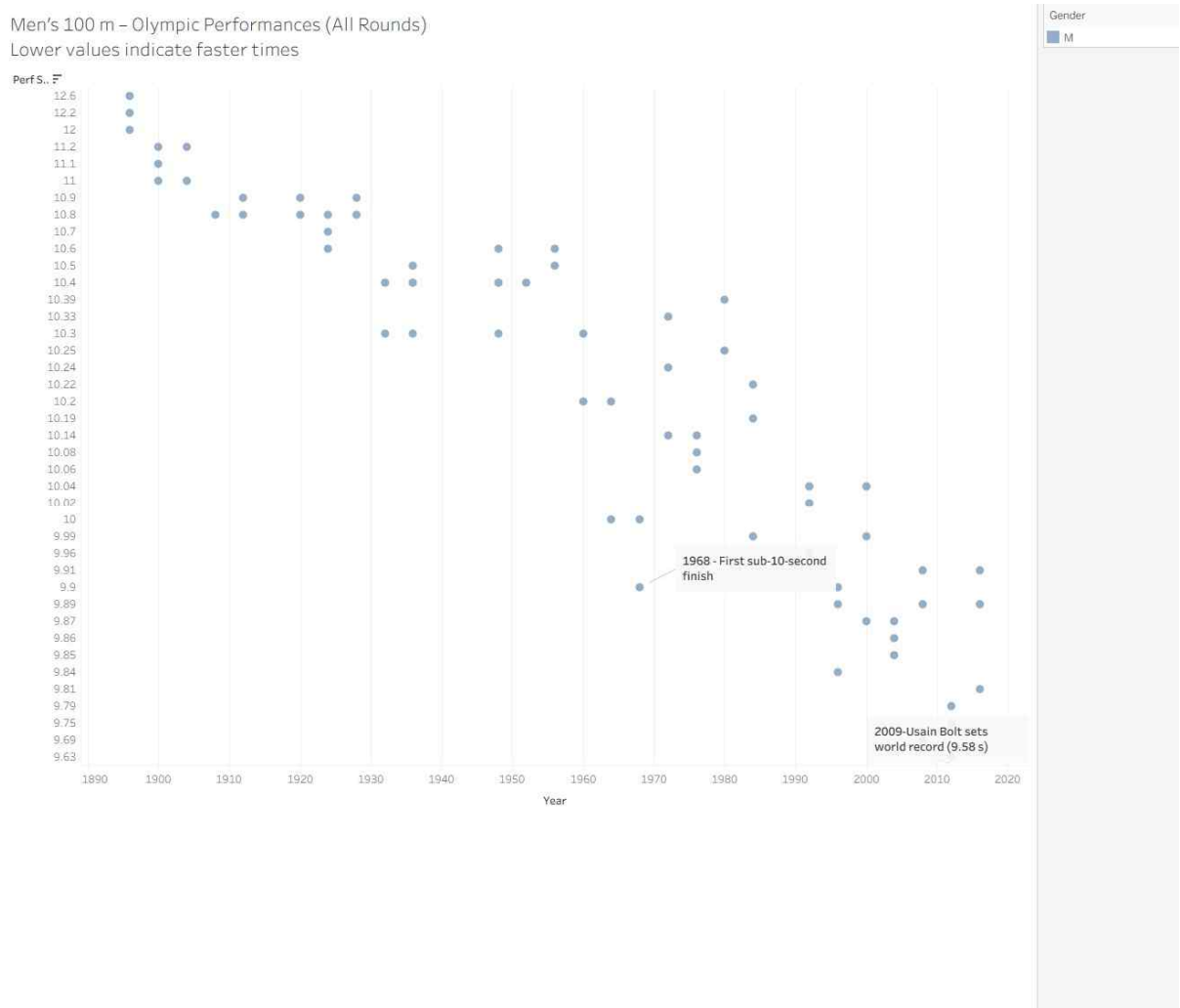


Part 1: Olympic Track & Field Visualizations (Overview of the Dataset and Objectives)

Chart 1: Men's 100m Olympic Performance Scatterplot

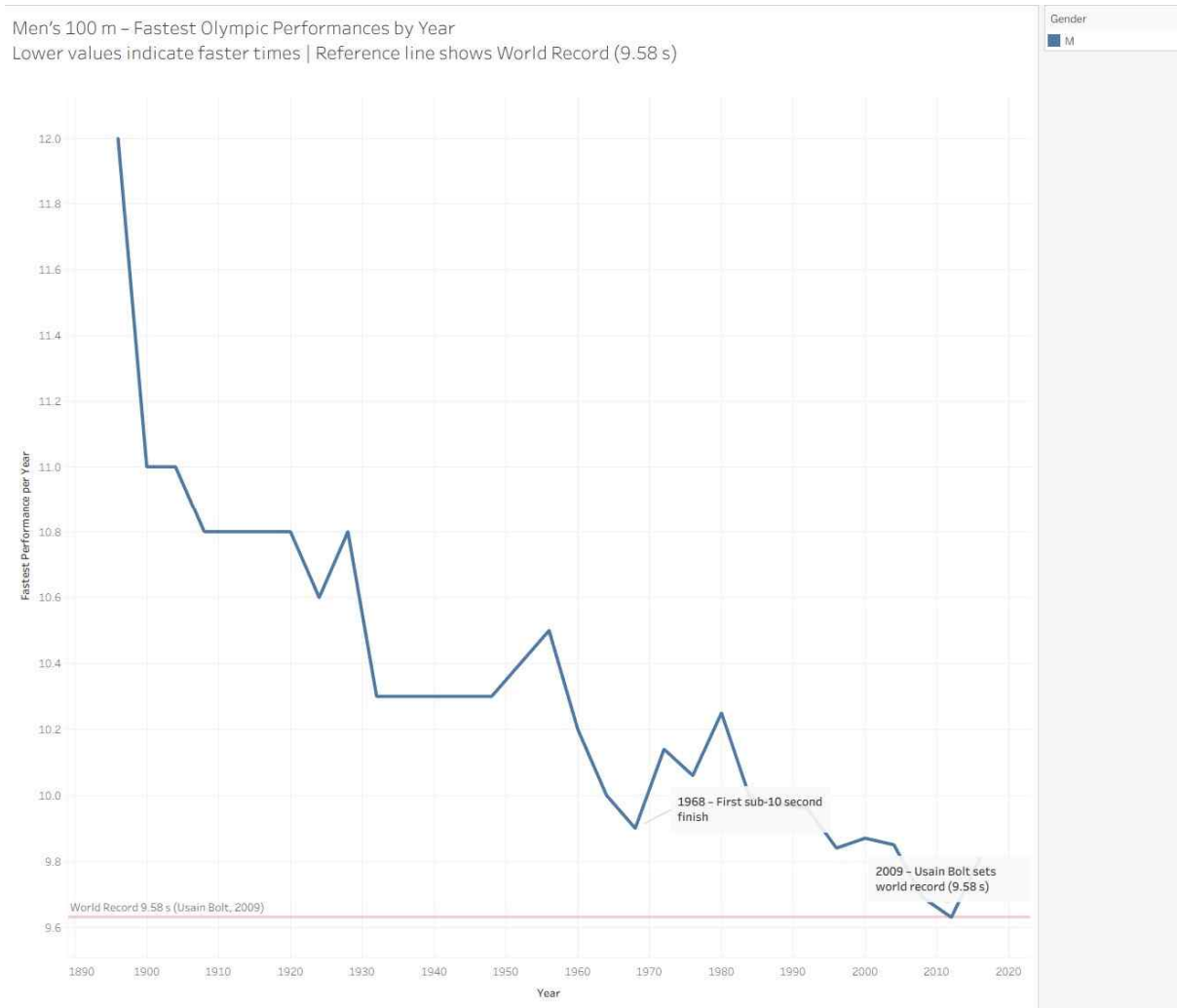
- Visualization and Analysis



This visualization shows the progress of Men's 100m Olympic performances from 1896 to 2020. Each dot represents an athlete's recorded time, revealing a clear downward trend over time. The first sub-10-second finish in 1968 marked a historic milestone, followed by Usain Bolt's world record of 9.58 seconds in 2009. Overall, the scatterplot highlights how improved training, technology, and human performance have continuously pushed the limits of speed in Olympic sprinting.

Chart 2: Fastest Winning Times in Men's 100m (Line Chart)

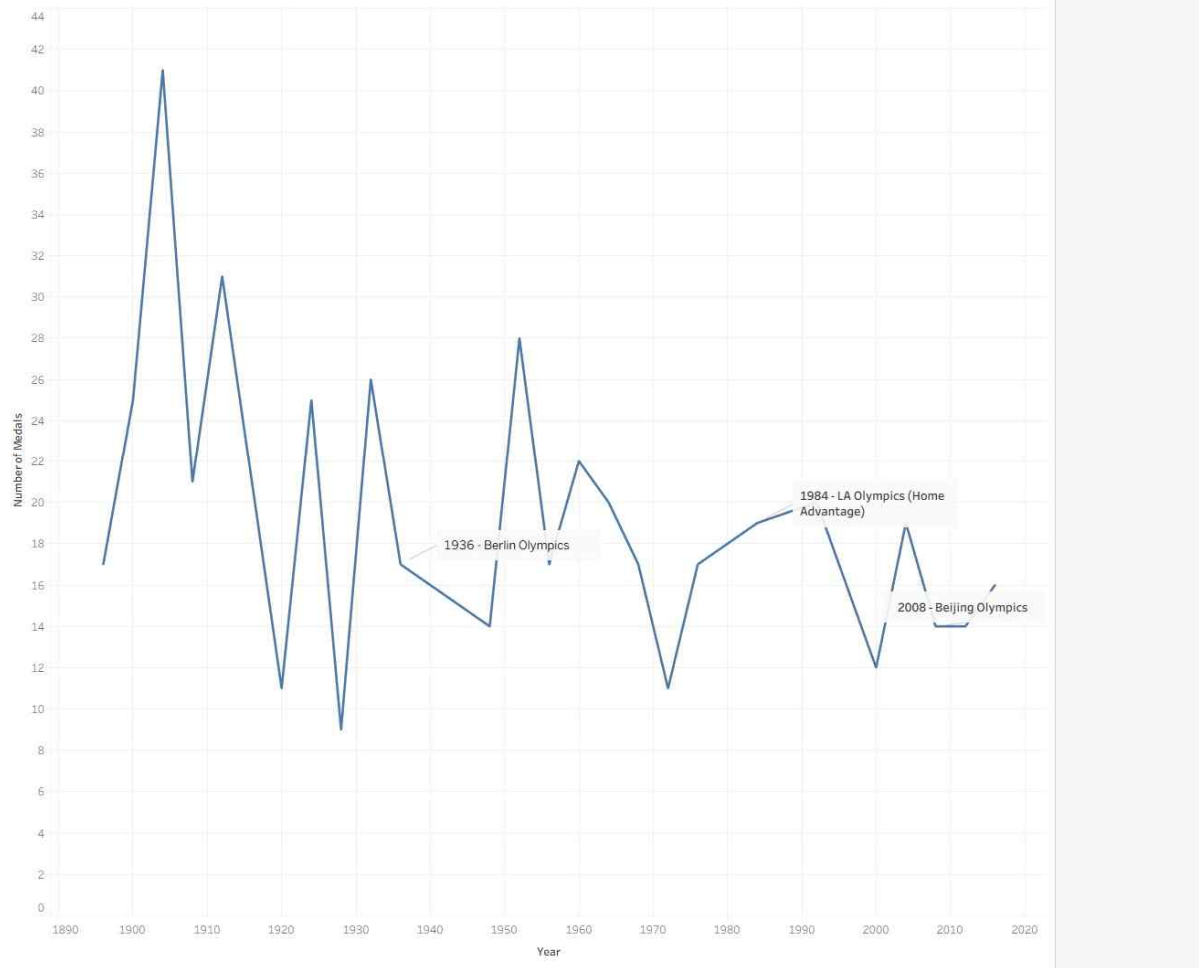
- **NYT-Style Visualization and Key Insights**



This chart shows the improvement of the fastest Olympic performances in the Men's 100m event from 1896 to 2020. The overall downward trend indicates that athletes have become significantly faster over time. The first sub-10-second finish in 1968 marked a major milestone, while Usain Bolt's 9.58-second world record in 2009 remains unmatched.

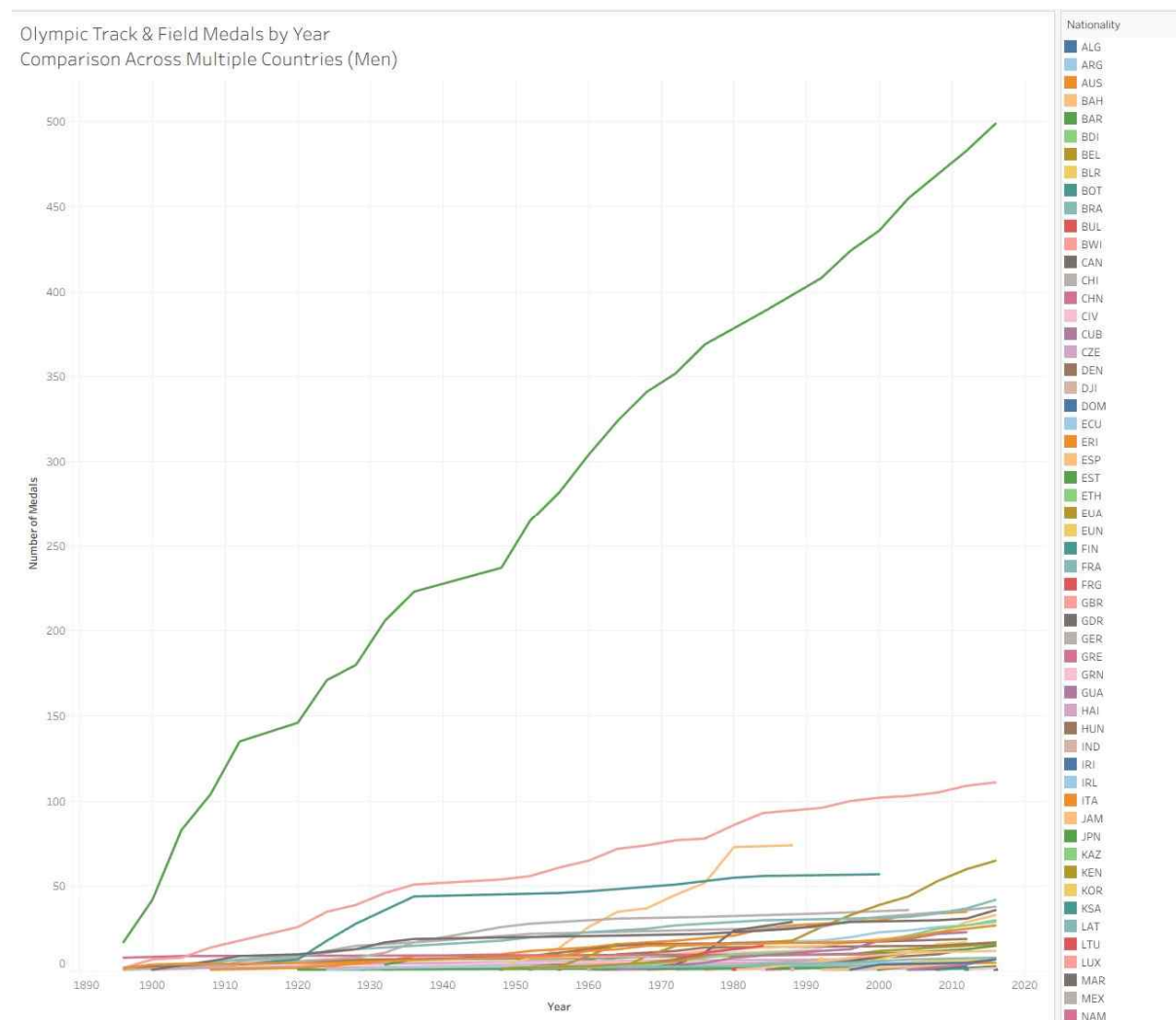
Chart A: Olympic Track & Field Medals by Year – United States (Men)

Olympic Track & Field Medals by Year
Country: United States (Men)



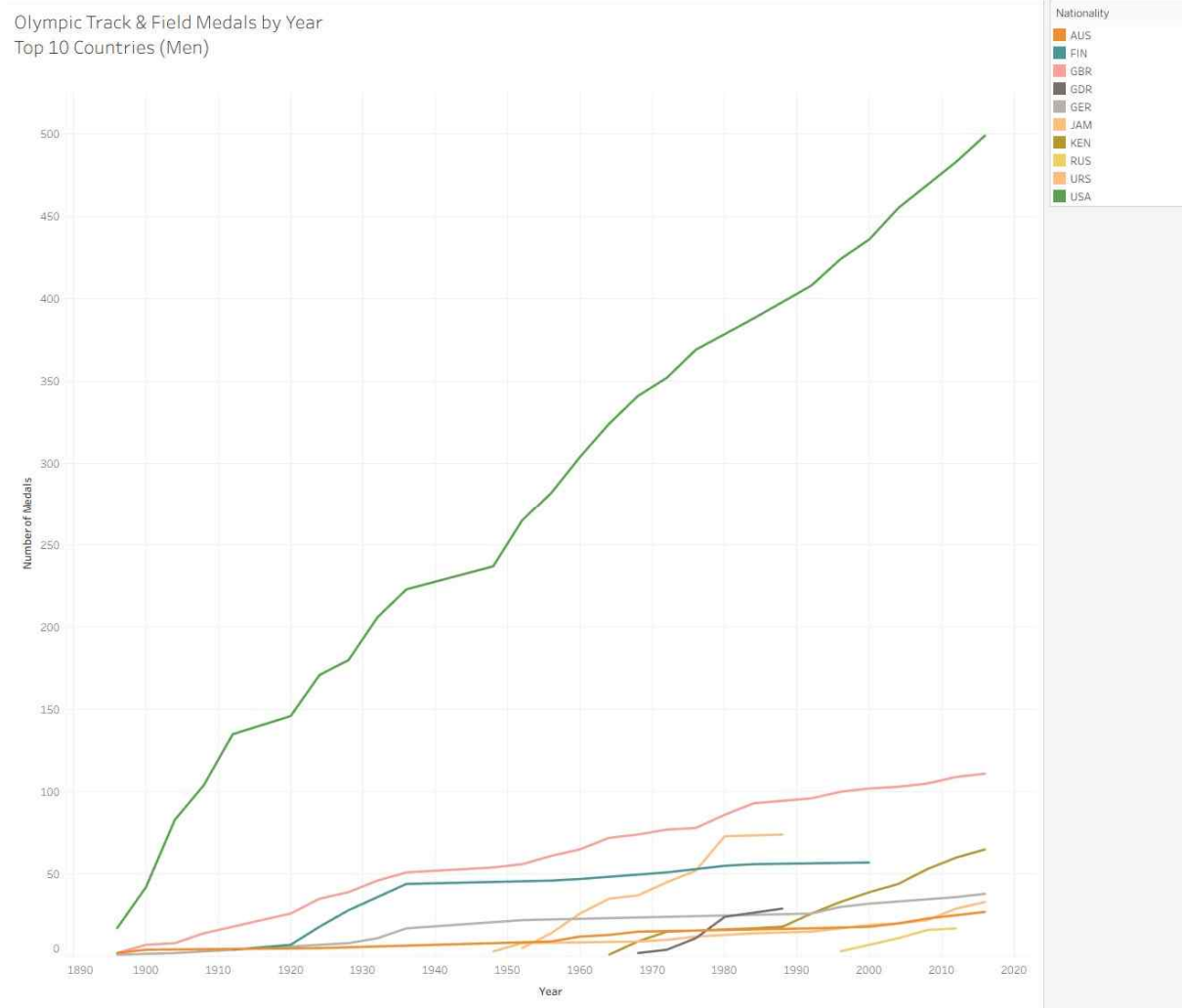
This line chart shows the number of medals won by the United States in Men's Olympic Track and Field events from 1896 to 2020. The graph reveals fluctuations in performance, with significant peaks in the early 1900s and during the 1984 Los Angeles Olympics, likely due to home advantage. Notable dips appear during wartime and post-war years. Overall, the chart reflects how the U.S. has remained a dominant force in track and field, despite variations across Olympic eras.

Chart A-1: Medal Counts Over Time (All Countries)



This line chart compares the cumulative number of Olympic Track & Field medals earned by multiple countries from 1896 to 2020. The United States (green line) clearly dominates, with a steep and consistent upward trend reaching over 500 medals. Other countries such as Great Britain, Russia, and Kenya follow far behind with smaller but steady growth. The visualization highlights the long-term dominance of the U.S. in athletics and the gradual rise of new competitors in recent decades.

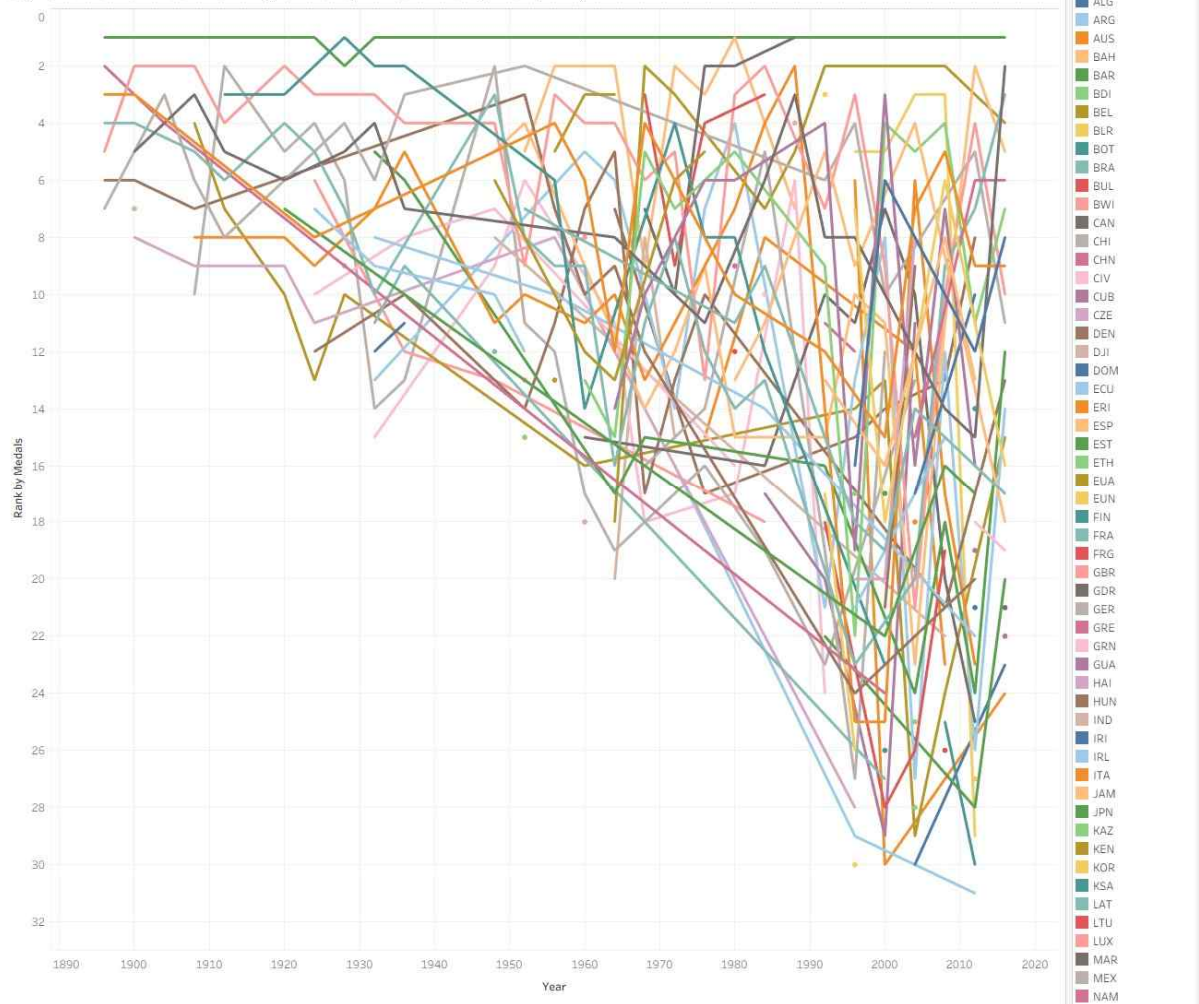
Chart A-2: Medal Counts – Top 10 Countries (Filtered View)



This line chart displays the cumulative number of Olympic Track & Field medals won by the top 10 countries (men) from 1896 to 2020.

Chart B: Country Rankings Over Time (Bump Chart – All Countries)

Olympic Track & Field – Ranking of Multiple Countries by Year (Men)



This bump chart visualizes the ranking of multiple countries in men's Olympic Track & Field events from 1896 to 2020. The United States consistently holds the top position, maintaining dominance throughout Olympic history. Other countries such as Great Britain, Finland, and Kenya show periodic rises but never surpass the U.S. The increasing density of lines in later years indicates growing global competition, as more nations began earning medals and narrowing the performance gap over time.

Chart B-1: Country Rankings – Top 10 (Bump Chart)

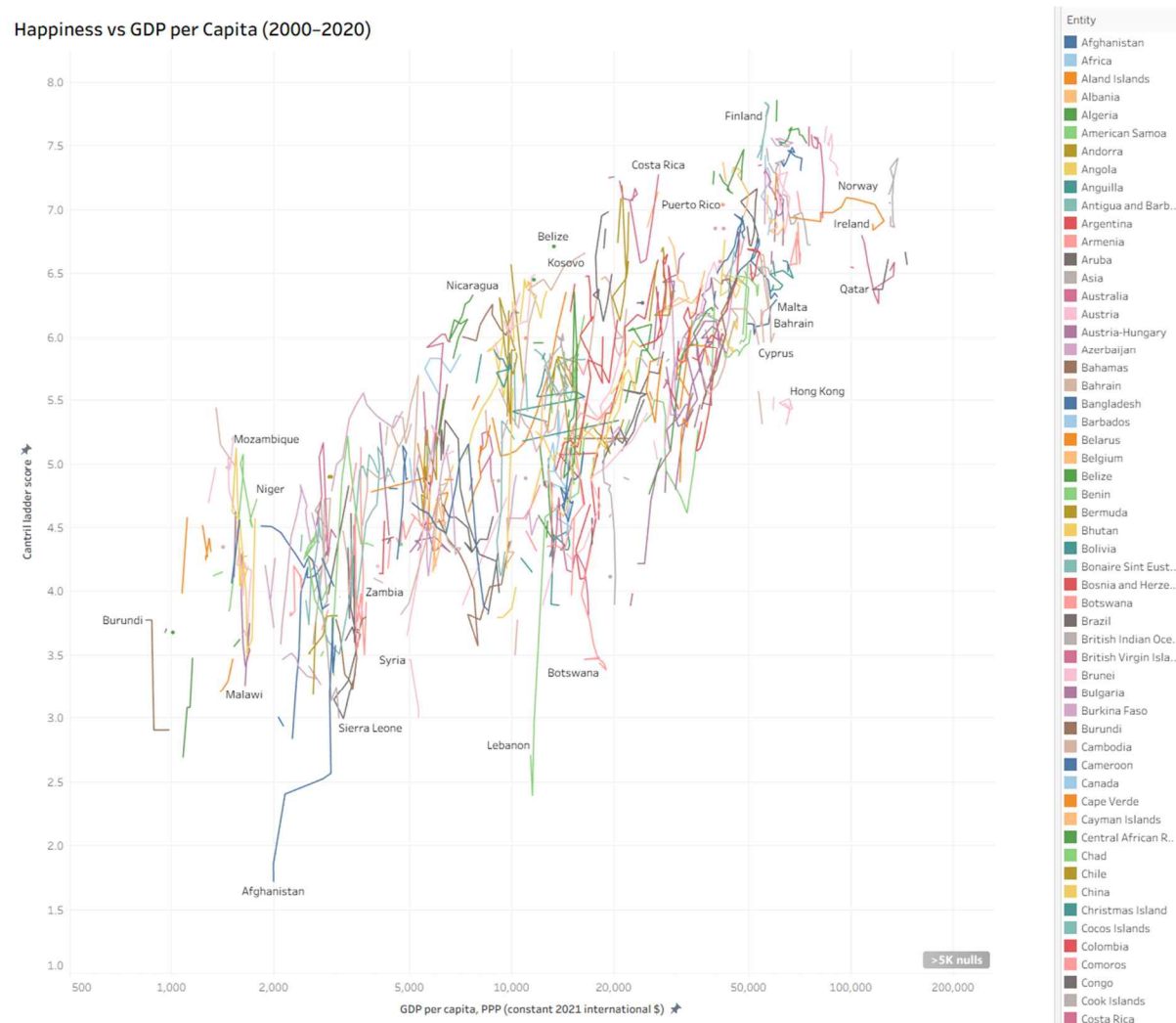


This bump chart shows the ranking of the top 10 countries in men's Olympic Track & Field events from 1896 to 2020.

Part 2: Extended Visualization – Our World in Data

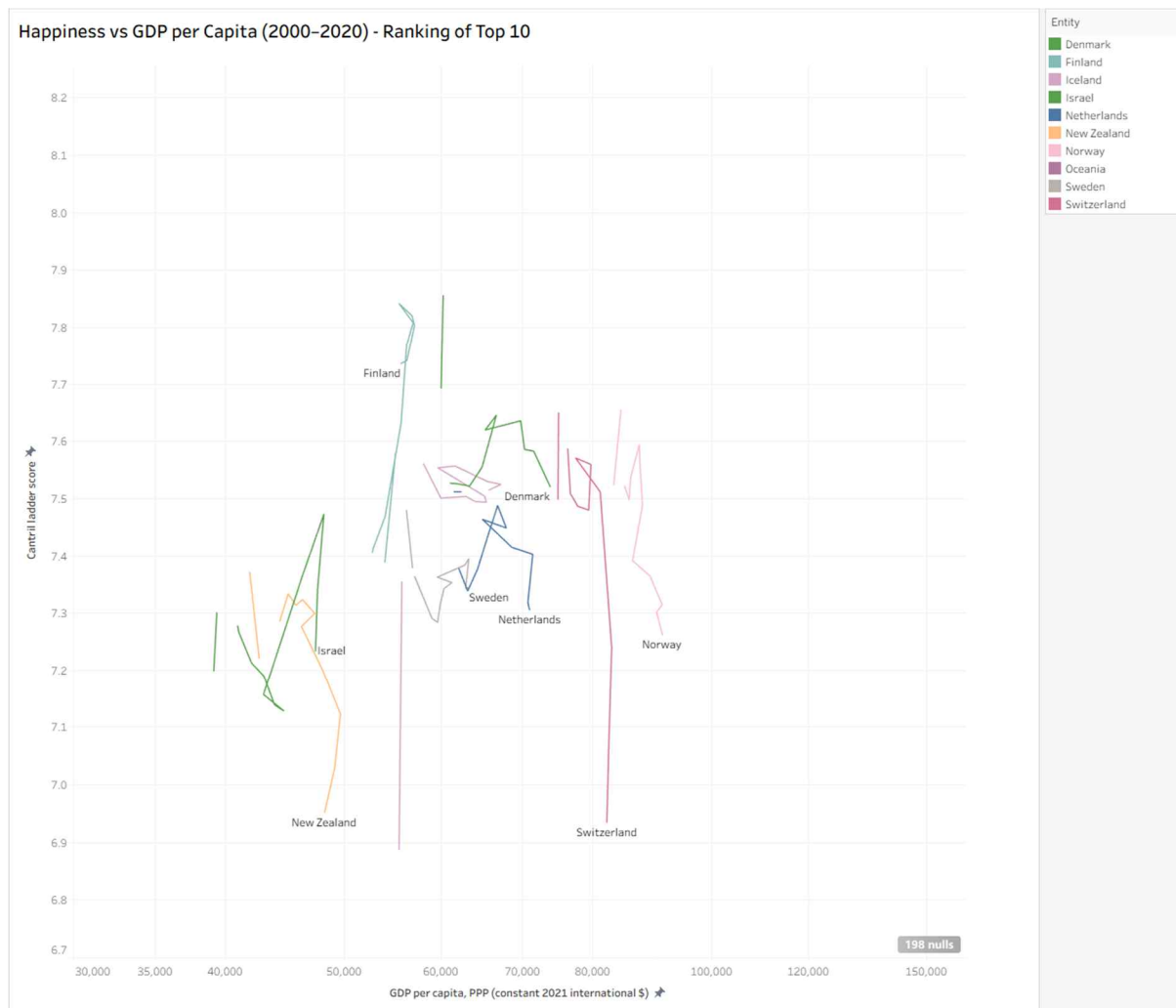
1. Connected Scatterplot: GDP per Capita vs. Happiness (All Countries)

Happiness vs GDP per Capita (2000–2020)



This connected scatterplot illustrates the relationship between GDP per capita (PPP, constant 2021 international \$) and happiness (measured by the Cantril ladder score) from 2000 to 2020. The chart reveals a clear positive correlation—countries with higher GDP per capita tend to report higher happiness levels. Wealthy nations like Finland, Norway, and Ireland consistently score above 7, while lower-income countries such as Afghanistan, Burundi, and Malawi remain below 4, highlighting global disparities in well-being and economic prosperity.

2. Connected Scatterplot: Top 10 Happiest Countries (Filtered)



This chart presents the relationship between GDP per capita and happiness (Cantril ladder score) for the top 10 happiest countries from 2000 to 2020.