

Sports Viewership Trends Post-COVID: A Second-Year Challenge

The Challenge

The COVID-19 pandemic disrupted sports in unprecedented ways — empty stadiums, postponed seasons, and "bubble" environments. These changes left a lasting impact on how fans engage with live sports. Did viewership recover after the pandemic, or have fans moved on to other forms of entertainment? Your mission is to investigate how championship game viewership for the NFL, NBA, MLB, and NHL changed from 1990 to 2024. By identifying recovery patterns, you will uncover which leagues regained their audience and which are still struggling.

The Context

Viewership is a critical source of revenue for sports leagues, driving TV contracts, streaming deals, and advertising opportunities. The COVID-19 pandemic created a natural "shock" to these trends, making it an ideal case study for how external events affect human behavior. While some leagues, like the NFL, saw strong rebounds, others, like the NHL, faced ongoing challenges. Each league took different approaches to play during the pandemic (e.g., NBA's "bubble" vs. NFL's limited capacity games), leading to unique recovery patterns. Understanding these differences is key to analyzing viewership shifts.

The Task

You will analyze real-world viewership data for each league's championship game from 1990 to 2024. Using **double exponential smoothing**, you'll model viewership trends and forecast how viewership might have looked if COVID-19 had never happened. You'll then compare actual post-COVID viewership (2021–2024) to forecasted data, identifying which leagues are on track, which are falling behind, and which have exceeded expectations.

Key Questions

- Which league recovered the fastest after COVID-19?
- Did any league's viewership surpass pre-pandemic levels?
- Which leagues still struggle to regain their audience?

Deliverables

By the end of this case study, you will produce an **analysis report** that includes:

- **Data Cleaning:** A ready-to-use, clean dataset.
- **Visualizations:** Trends in viewership before, during, and after COVID-19.
- **Forecast vs. Reality:** Comparisons of predicted vs. actual viewership.
- **Insights:** A clear analysis of which leagues are leading or lagging in recovery.

Take on the challenge. Access the full dataset, scripts, and instructions via the GitHub repository here: <https://github.com/fourchain40/DS4002-CS3/tree/main> .