

COVID Sports Viewership Impacts

A DS 4002 Case Study by Adam Snyder



Imagine yourself as a data scientist on a high-stakes mission to uncover hidden trends in the world of American sports. Your task? To explore how the COVID-19 pandemic reshaped viewership for the country's most celebrated championships: the Super Bowl, NBA Finals, World Series, and Stanley Cup Finals. Using time series analysis, you'll dive into patterns and anomalies across NFL, NBA, MLB, and NHL data to reveal the true extent of the pandemic's influence on how fans engage with their favorite sports.

As a University of Virginia student with a growing analytical toolkit, you're stepping into the role of a decision-maker for a major sports analytics firm. Your findings will shape critical conversations among league executives, advertisers, and broadcasters grappling with the long-term implications of a disrupted sports culture. Was the drop in viewership in 2020 an anomaly, or did it signal a deeper shift in audience behavior? You'll analyze pre- and post-pandemic trends to address these questions and present your insights in a compelling, data-driven deliverable.

This case study invites you to tackle a real-world problem that blends sports, economics, and public policy. It's more than an academic exercise—it's an opportunity to tell a story with data, identify patterns others may have missed, and add your voice to the evolving narrative of how COVID-19 impacted one of America's biggest industries. The spotlight is on you to interpret the numbers, draw actionable conclusions, and provide a polished summary to stakeholders eager for clarity.

In this case study, you'll go beyond simply analyzing past trends—you'll predict the future. Using time series analysis, you'll work with historical championship viewership data to forecast what post-pandemic viewership would have been expected under normal circumstances. Then, you'll compare these projections to the recorded post-pandemic viewership, uncovering any lingering effects of the pandemic and sparking insights into how America's relationship with sports may have fundamentally changed.

Your challenge awaits. Will you uncover the patterns behind the numbers and rise to the occasion? Let's find out.

For more details, see attached rubric and GitHub repository https://github.com/arsnyder23/DS4002_CS3