

# Final Project: Data Story

Overview

Analysis 1

Analysis 2

Conclusion

Citations

## Exploring Home Field Advantage in the World's Biggest Football Tournament

### Background

The FIFA World Cup is one of the most prestigious international football tournaments, uniting teams worldwide since 1930. With players traveling across continents, they face challenges such as **time zones**, **language barriers**, **climate**, and **cultural differences**.

A widely debated topic is **home field advantage** — the belief that host nations perform better due to **familiar environments**, **stadium familiarity**, and **crowd support**. This analysis investi..

### Data and Methods

This analysis uses historical FIFA World Cup match data across multiple tournaments. Key variables include **match results**, **goals scored**, **host status**, and **tournament stage**.

#### All Variables:

Year, Game#, Date, Time, Round, Round Grouped, Stage, Stadium, City, Country, Team, Team Goals, Opponent, Oppon..

### Research Questions

Do **host nations** tend to perform significantly better than **non-hosts** in terms of **wins** and **progression**?  
How does the **goal differential** compare between ..

By: Luis Martinez Ferraez

# Final Project: Data Story

Overview	Analysis 1	Analysis 2	Conclusion	Citations
----------	------------	------------	------------	-----------

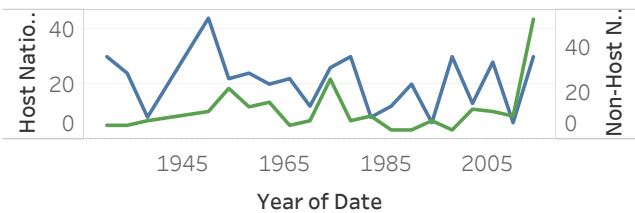
## Understanding Host Nation Performance throughout World Cups

This is a high level overview of host nation performance in the FIFA World Cup, using three descriptive visualizations to uncover historical trends. The first visualization on the top right, shows the comparison of a host nation's win, loss, and draw across different tournaments, highlighting what the host country's overall performance were in tournaments throughout the years. The second visualization, on the bottom right, examines the average number of goals scored per match, revealing that host nations have consistently had a stronger offensive presence overall, compared to non-host nations. The third visualization, on the bottom left, showing how their success has evolved throughout World Cup history. Together, these visuals provide a foundational understanding of the home team advantage, setting the stage for more detailed analysis in the next section.

### Measure Names

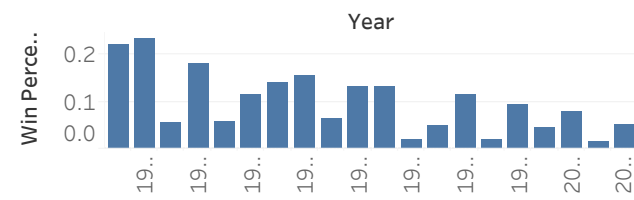
■ Host Natio.. ■ Non-Host..

### Goals Scored by Host vs Non-Host Nations



Host nations consistently score more goals per match than non-host nations, especially in the early years of the World Cup. However, the gap has narrowed slightly in recent tournaments, suggesting that while home advantage in goal scoring still exists, it may be diminishing over time.

### Host Nation Success by Tournament Year

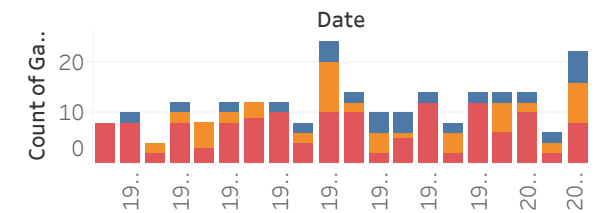


Host nation win percentages have historically been strong, with several hosts advancing deep into the tournament. However, recent World Cups show a slight decline in host nation dominance, indicating that home advantage may be less decisive than it once was.

### Host Team Win/Loss/Draw

■ Draw ■ Lost ■ Win

### Host Nations Win/Loss/Draw Throughout the Years



Over the years, host nations have consistently recorded more wins than losses or draws when playing at home. Although the win rates remain high overall, a slight increase in losses and draws in more recent tournaments suggests that the home advantage is facing new challenges.

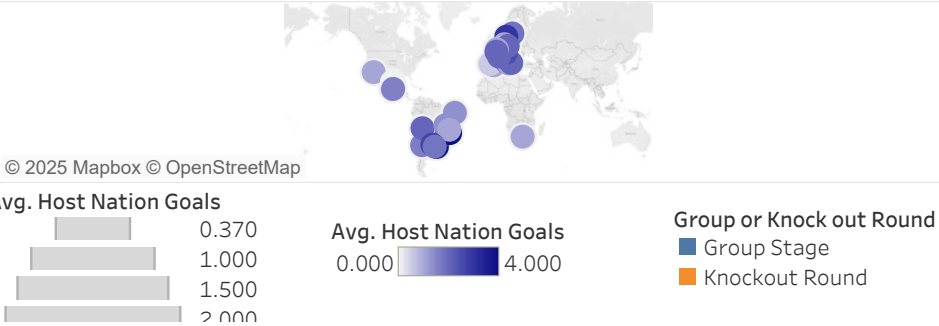
# Final Project: Data Story

Overview	Analysis 1	Analysis 2	Conclusion	Citations
----------	------------	------------	------------	-----------

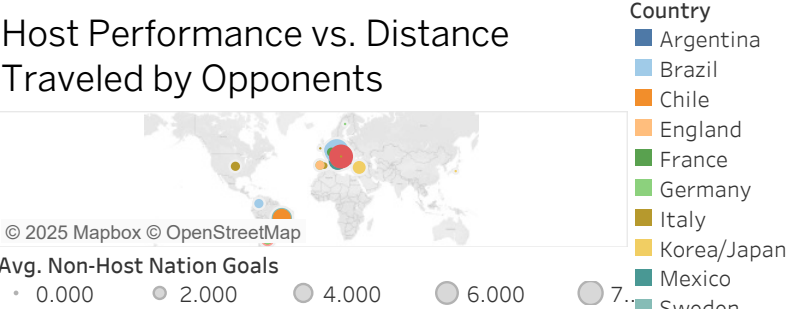
## Deconstructing Home Advantage: Location, Stage, and Travel Impact

This analysis explores key factors that may influence the success of host nations beyond basic match outcomes. The geographic map visualization reveals where host nations played and how they performed in specific cities or stadiums, helping identify whether certain locations offered stronger advantages. The breakdown by tournament stage highlights how host teams perform across different phases, such as the group stage and knockout rounds, offering insight into whether the advantage holds under increasing pressure. Additionally, the opponent distance analysis investigates whether teams that travel farther are more likely to lose against the host nation, suggesting a potential link between travel fatigue and performance. Collectively, these visualizations provide a more detailed and interactive perspective on the dynamics of home team advantage in the World Cup.

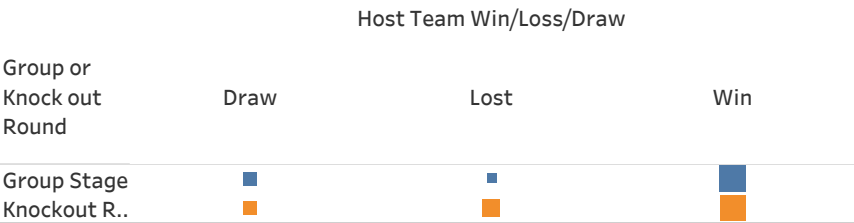
### Geographic Map of Host Nation Match Performance



### Host Performance vs. Distance Traveled by Opponents



### Host Nation Performance by Tournament Stage



# Final Project: Data Story

Overview

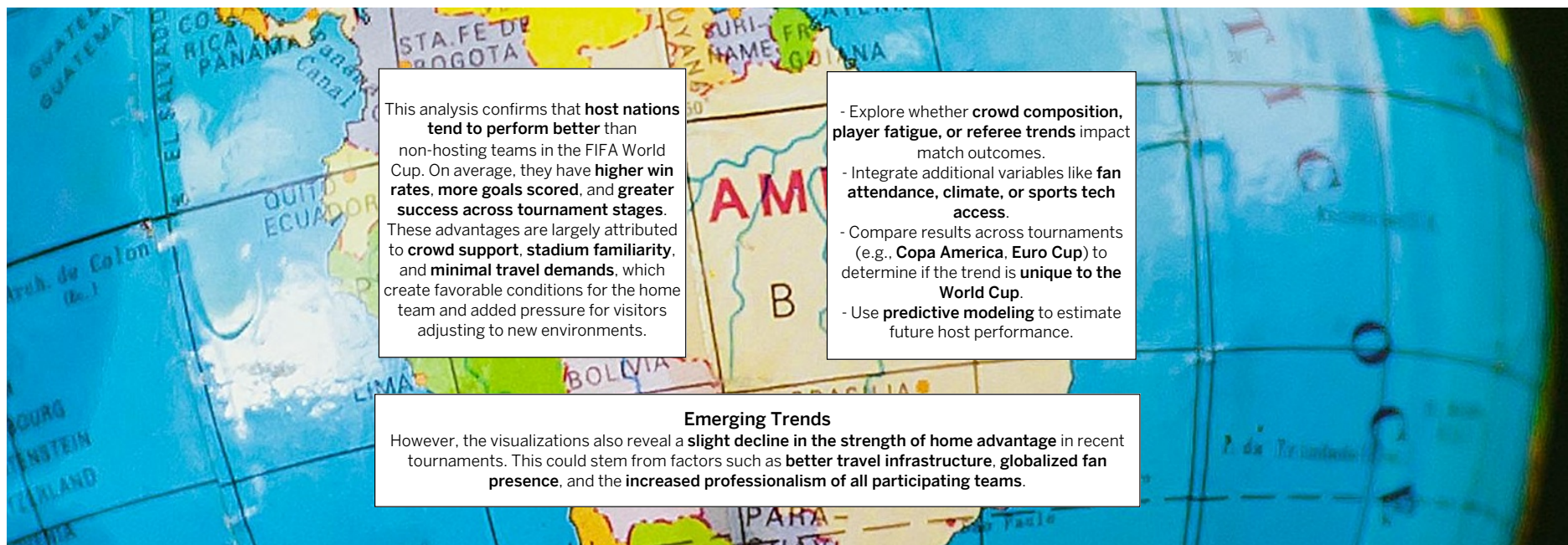
Analysis 1

Analysis 2

Conclusion

Citations

## Conclusion: Interpreting the Impact of Home Advantage in the World Cup



# Final Project: Data Story

Overview

Analysis 1

Analysis 2

Conclusion

Citations

## Citations

### News Articles:

#### *Does home advantage really matter for the Fifa World Cup?*

Summary: Explores the significance of home advantage in the tournament, highlighting that host nations often perform better due to factors like crowd support and familiarity with the environment. However the article also notes that this advantage is not always consistent.

Citation:

Utikal, N. (2019, August 29). *Does home advantage really matter for the FIFA World Cup?*.

Medium. <https://medium.com/@nicholasutikal/does-home-advantage-really-matter-for-the-fifa-world-cup-d18489248391>

#### *Home Field Advantage: The Facts and the Fiction*

Summary: The article explores the concept of home field advantage, revealing that while home teams often win more games, factors like crowd noise and travel fatigue are not as influential as commonly believed. Instead, the article suggests that psychological factors and familiarity with the playing environment play a more significant role in home field advantage.

Citation:

Pinger, N. (2015, June 15). Home field advantage: The facts and the fiction. The University of Chicago Booth School of Business. <https://www.chicagobooth.edu/review/home-field-advantage-facts-and-fiction#:~:text=Soccer%20has%20the%20largest%20average.in%20US%20Major%20League%20Soccer>

#### *WORLD CUP: IS THERE SUCH A THING AS A HOME ADVANTAGE?*

Summary: The article explores the concept of home advantage, suggesting that teams competing on their home continent rather than just the host nation tend to perform better. It highlights that E..

#### *Home Advantage in Sport*

Summary: Identify crowd influence as the most dominant cause of home advantage, with crowd size and the potential subconscious bias of officials bright significant factors. Travel and rule play minor roles, while learning factors offer minimal benefit to home teams.

Citation:

Nevill, A. M., & Holder, R. L. (2012). Home advantage in Sport. *Sports Medicine*, 28(4), 221–236.

<https://doi.org/10.2165/00007256-199928040-00001>

#### *World Cup Soccer Home Advantage*

Summary: Examines the factors contributing to home advantage in World Cup soccer, including familiarity with playing facilities and travel distance. The study found that while game importance did not affect home advantage, increased travel distance and fewer days between games negatively impacted team performance, supporting the significance of situational factors in home advantage.

Citation:

BROWN JR., T. D. et al. World Cup Soccer Home Advantage. *Journal of Sport Behavior*, [s. l.], v. 25, n. 2, p. 134, 2002. Disponível em: <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip.vid&db=s3h&AN=6649973&site=ehost-live>. Acesso em: 27 fev. 2025. (<https://web-p-ebscohost-com.proxy-um-researchport.umd.edu/ehost/detail/detail?vid=1&sid=56cb4705-f214-4ec1-a711-148b3fe21425%40redis&bdata=JkF1dGhUeXBIPWlwLHVpZCZzaXRIPWVob3N0LWx-pdmU%3d#AN=6649973&db=s3h>)

..

Dataset: <https://github.com/CJ-Mayes/SportsVizSunday/blob/main/Data/Soccer/World%20Cup/World%20Cup%20Resul..>