



# Improving Attendance in Major League Soccer

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# Background

Major League Soccer (MLS) is the top soccer league in the United States and Canada.

MLS started in 1996.

Has grown to 29 teams (30 in 2025).





# Business Problem

**Goal: Determine what steps MLS can take to improve in-person attendance of fans.**

Factors I considered:

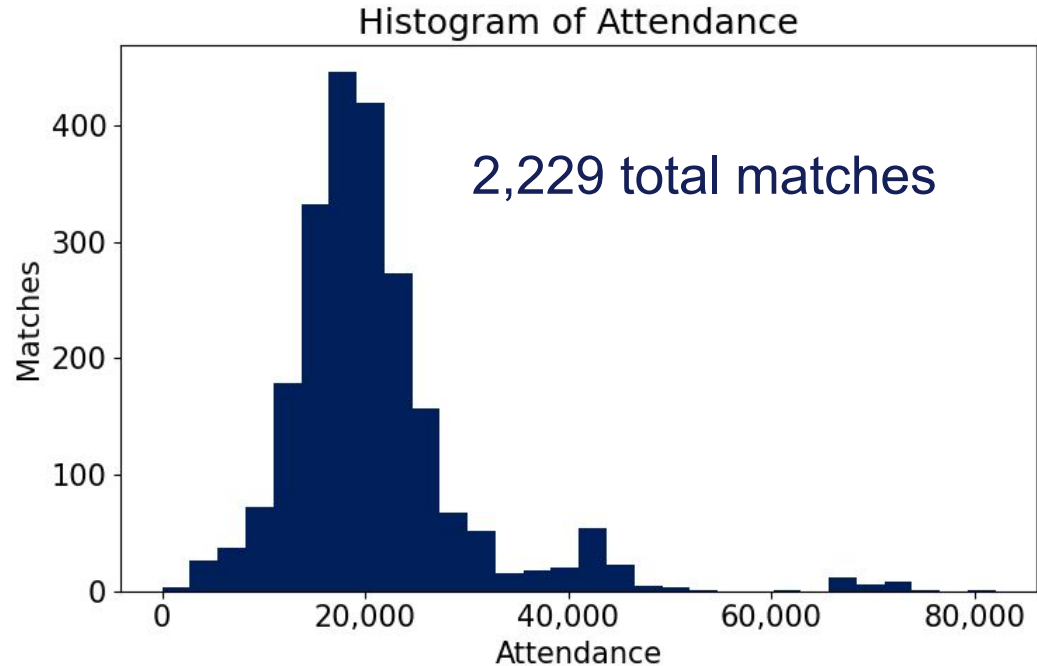
1. When matches were played
2. Which teams were playing
3. Weather



# Data

I used match data from 2018-2023 (excluding 2020). (Source: FBref.com)

Weather data is within an hour of kick-off for each match. (Source: open-meteo.com)

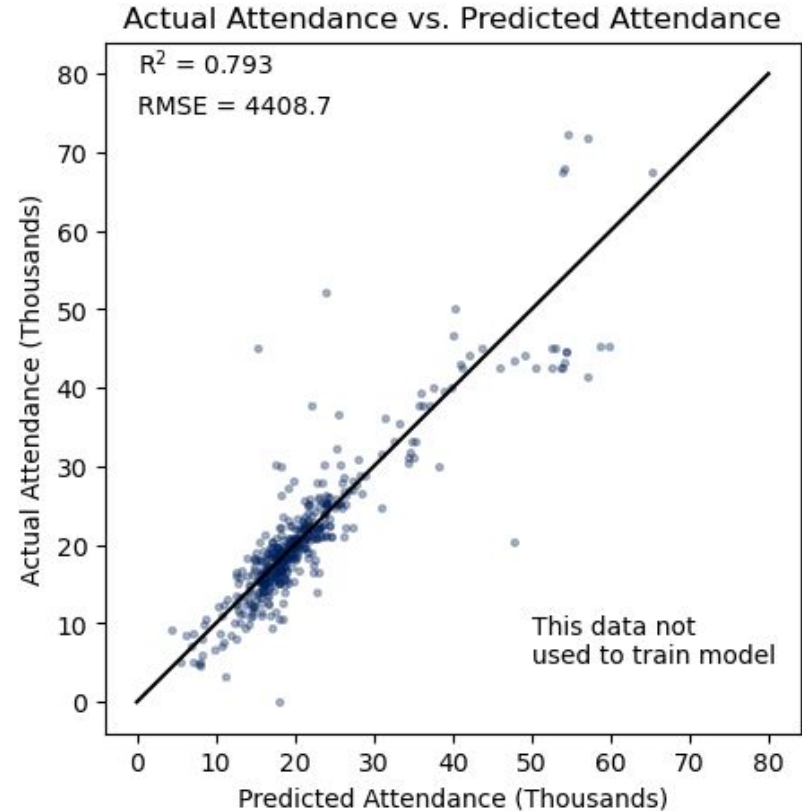




# Modeling Attendance

Best model explained 79.3% of the variance in attendance.

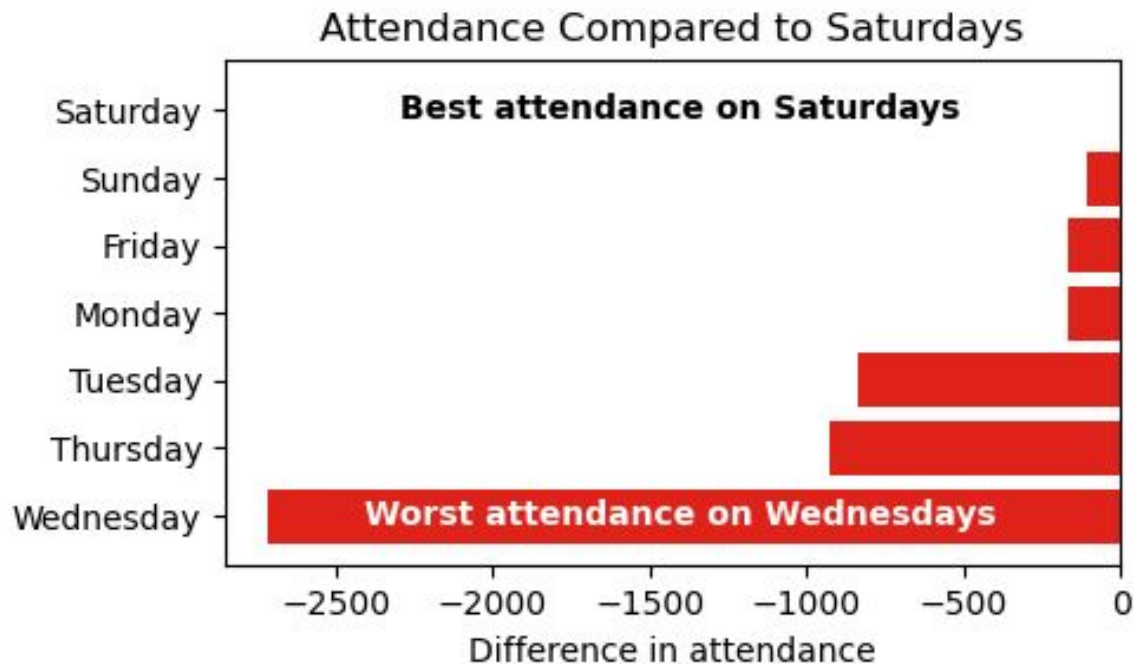
Predicted attendance typically within 4,400 of true attendance.





# Results: When Should Matches Be Held?

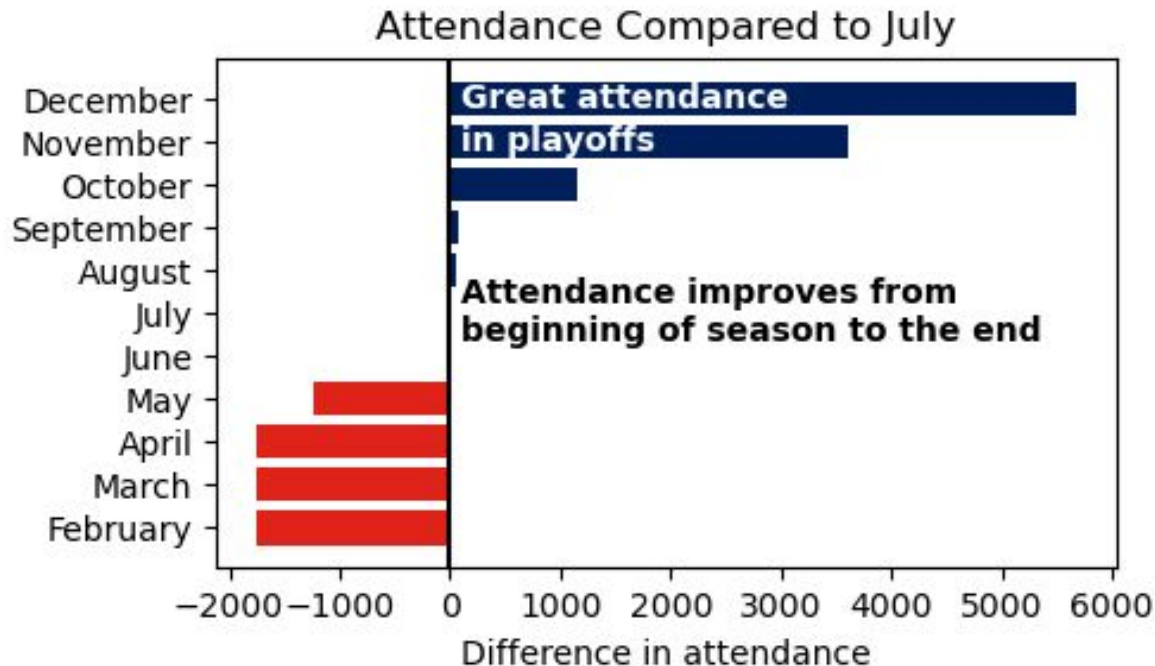
Wednesday attendance about 2,800 worse than Saturdays.





# Results: When Should Matches Be Held?

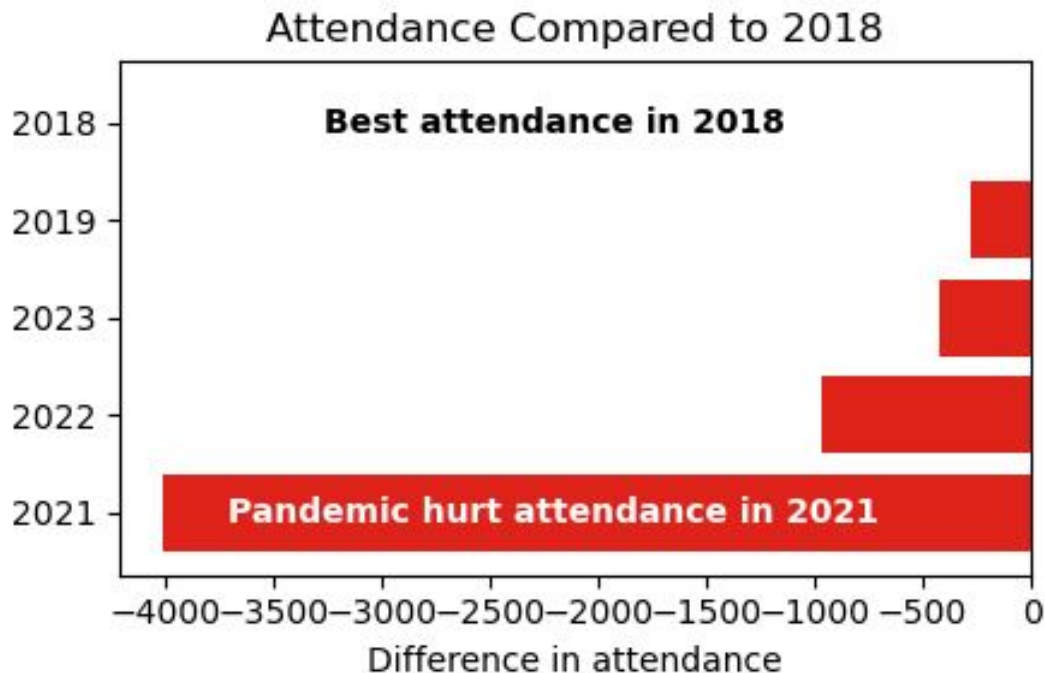
Attendance improves as season progresses.





# Results: When Should Matches Be Held?

Attendance improving after being affected by pandemic.

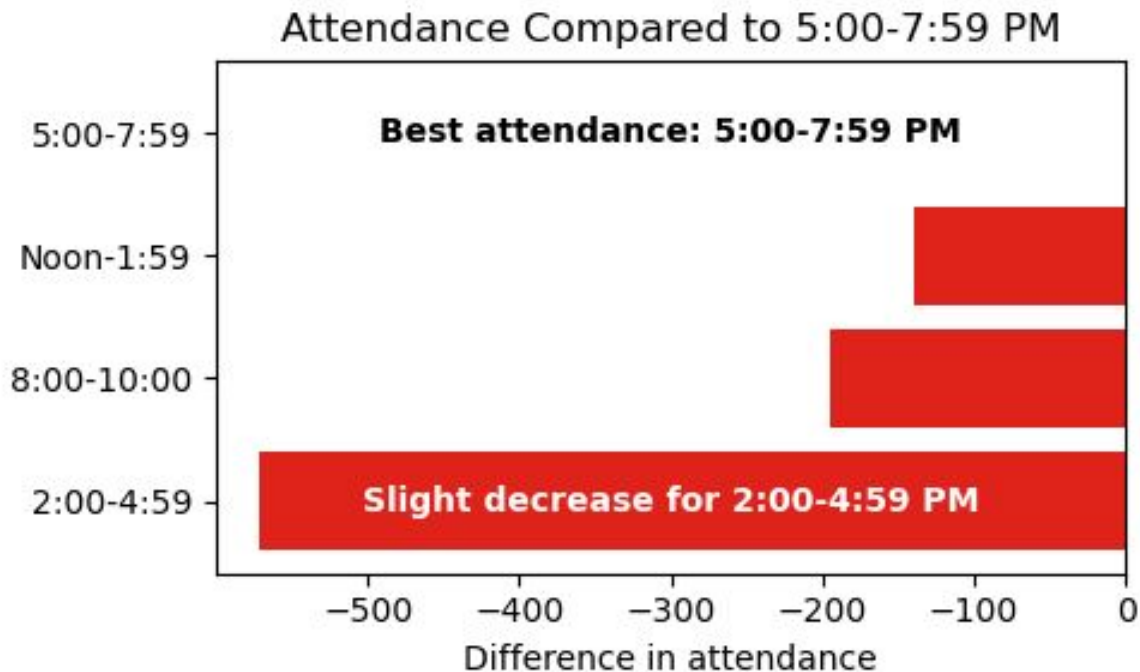






# Results: When Should Matches Be Held?

Kick-off time does not have huge effect on attendance.

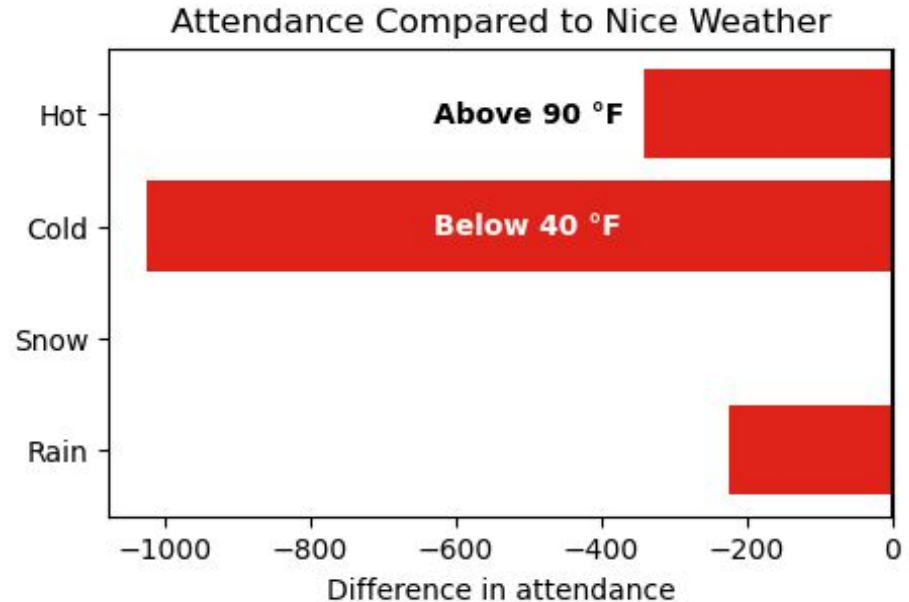




# Results: Does Weather Matter?

Cold weather decreases attendance by ~1,000.

No evidence that precipitation affects attendance.

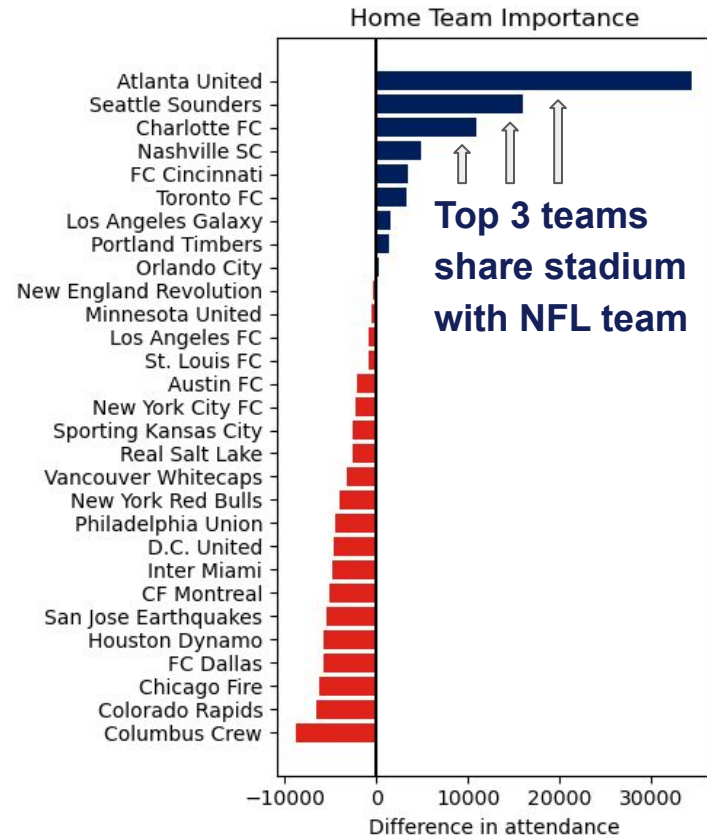
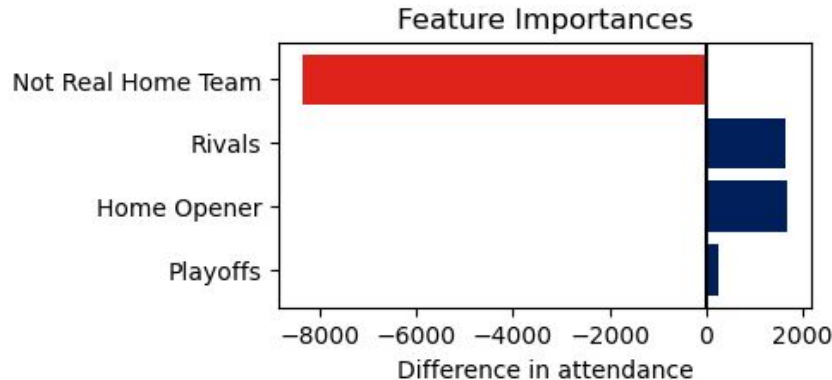




# Results: Other Factors

Neutral matches have terrible attendance.

Home openers and rivalry matches improve attendance by almost 2,000.





# Recommendations

**Reduce midweek matches:** Best attendance on weekends.

Getting rid of redundant competitions like the Leagues Cup would help free up weekends.



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**Reduce midweek matches.**

**Schedule winter matches in warmer cities with earlier kick-offs:** Very cold matches could be avoided in February by favoring southern U.S. over northern U.S. and Canada.



Source: [https://en.wikipedia.org/wiki/2023\\_Major\\_League\\_Soccer\\_season](https://en.wikipedia.org/wiki/2023_Major_League_Soccer_season)



# Recommendations

**Reduce midweek matches.**

**Schedule winter matches in warmer cities with earlier kick-offs.**

**Make the regular season matter:** Attendance improved as season progressed.

People want to see matches with high stakes.

MLS should consider playoff format used by Australian Football League.



# Thank You

**Any Questions?**

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