

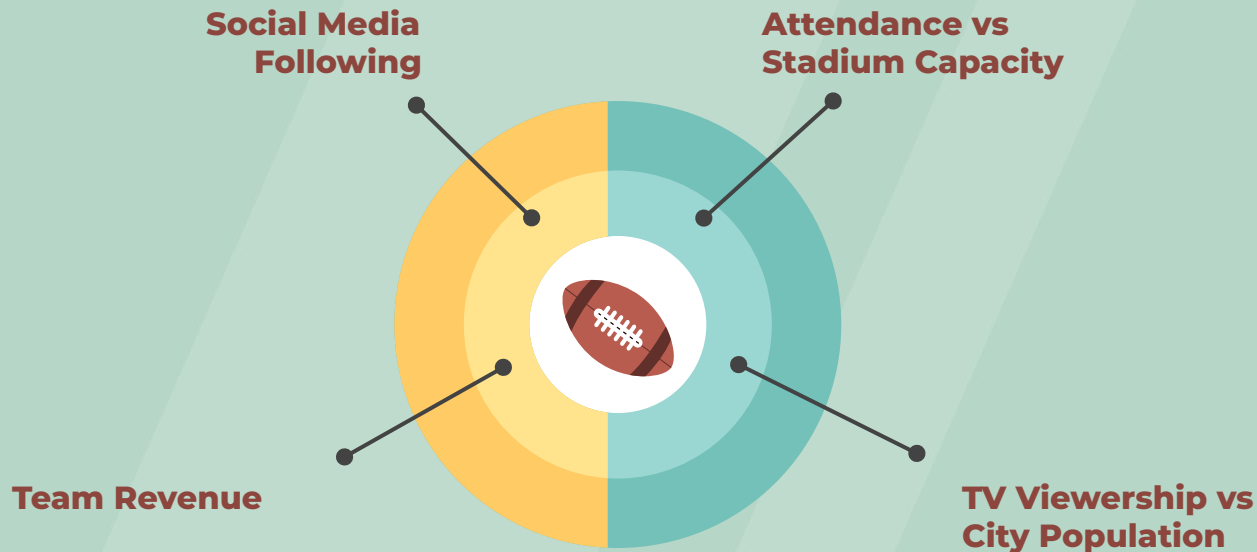
NFL Data Engineering: Which NFL Team was the most popular in 2023?

Project 3
October 17, 2024

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Key Factors That Define Popularity



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Our Process

Plan

Map out database and key relationships

Extract

Data pulled from:
Kaggle
Statista
US Census
Yahoo Sports
ESPN

Transform

Data cleaned and transformed using Python, Pandas

Load

Cleaned CSV files loaded into tables in PostGres (SQL Database), key relationships defined

Analyze

Analysis with visualizations done using Matplotlib, Seaborn, Numpy, Excel

Data Engineering

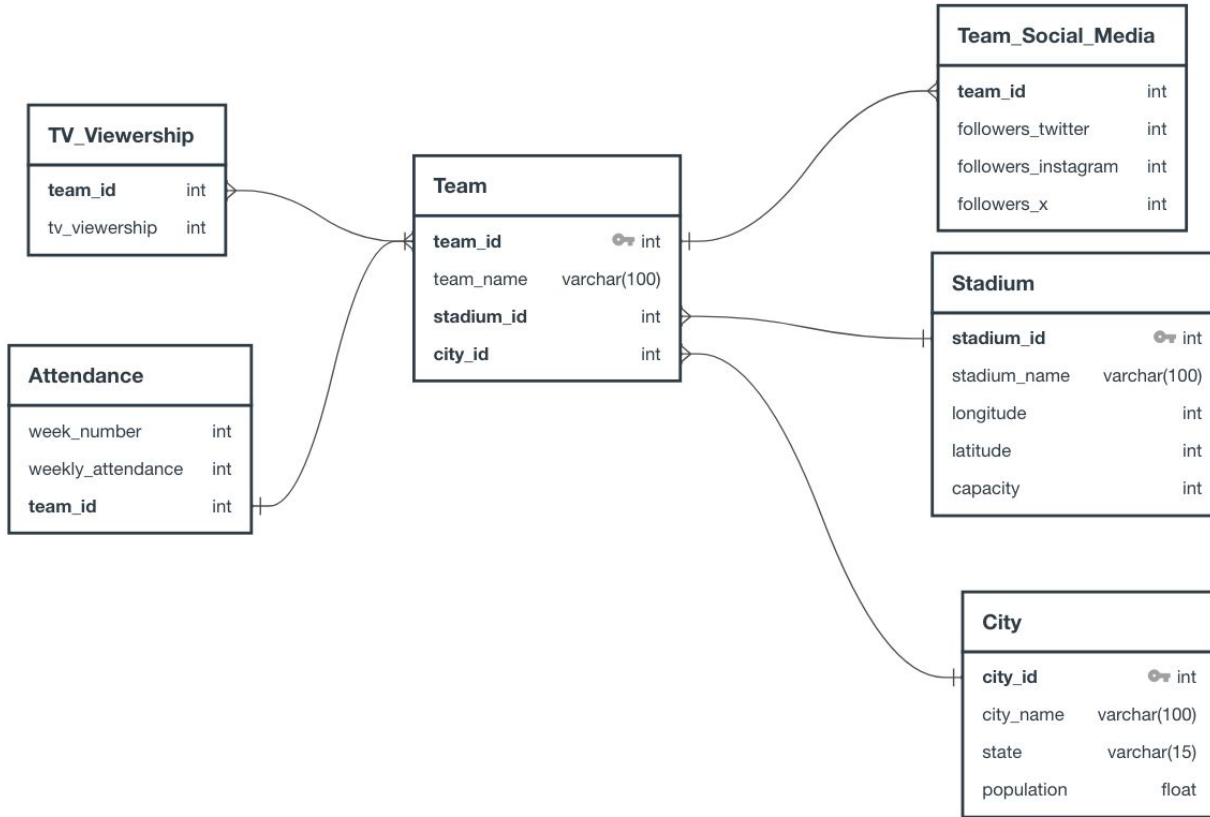
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ERD Process

Transformation cleaned messy data gathered from different sources into clean tables for analysis

How it started	Rank	City, State		Est Pop 2020	Est Pop 2021	Est Pop 2022	Est Pop 2023
	1	New York city, New York		8,740,292	8,462,216	8,335,798	8,258,035
	2	Los Angeles city, California		3,895,848	3,832,573	3,822,782	3,820,914
	3	Chicago city, Illinois		2,743,329	2,704,101	2,672,660	2,664,452
	4	Houston city, Texas		2,299,269	2,291,020	2,302,488	2,314,157
	5	Phoenix city, Arizona		1,612,459	1,625,187	1,643,899	1,650,070
	6	Philadelphia city, Pennsylvania		1,600,684	1,589,623	1,566,836	1,550,542
	7	San Antonio city, Texas		1,439,257	1,454,003	1,473,325	1,495,295
	8	San Diego city, California		1,386,292	1,376,142	1,387,378	1,388,320
In the end ...	city_id	City	State	Population			
	201	Glendale	Arizona	253855			
	202	Atlanta	Georgia	510823			
	203	Baltimore	Maryland	565239			
	204	Buffalo	New York	274678			
	205	Charlotte	North Car	911311			
	206	Chicago	Illinois	2664452			

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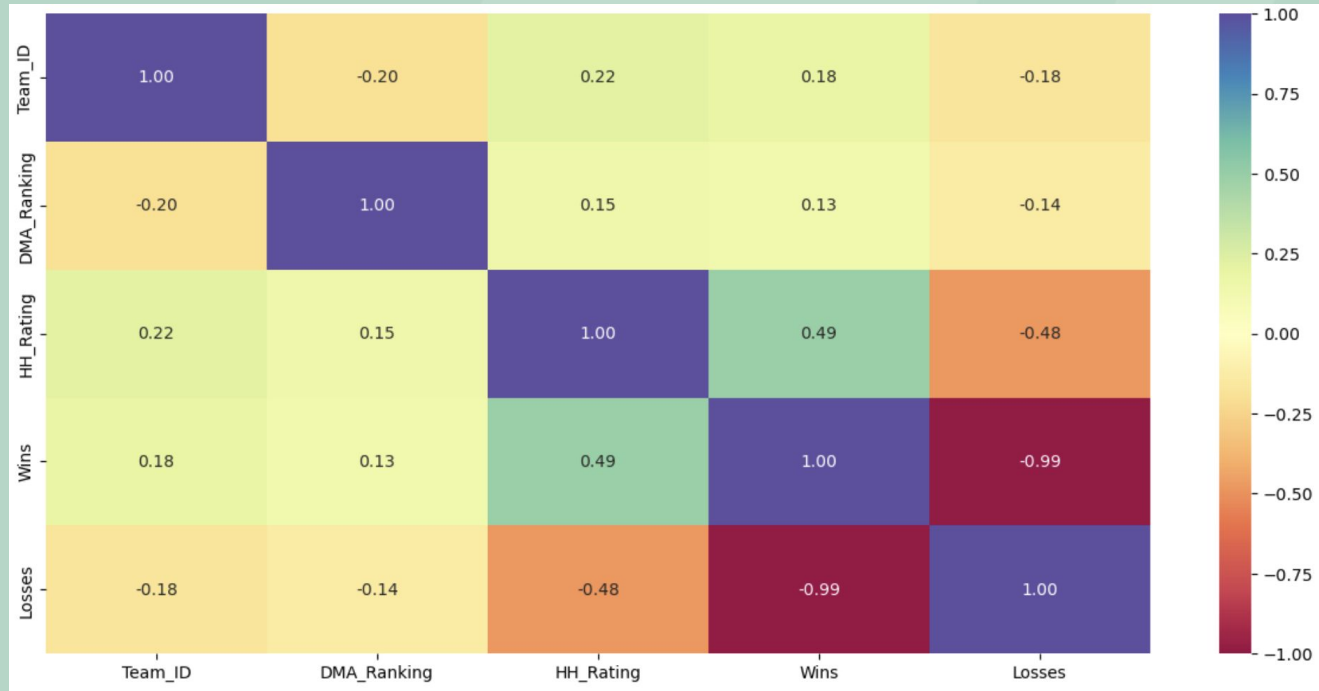
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Correlation Between Super Bowl TV Viewership Variables



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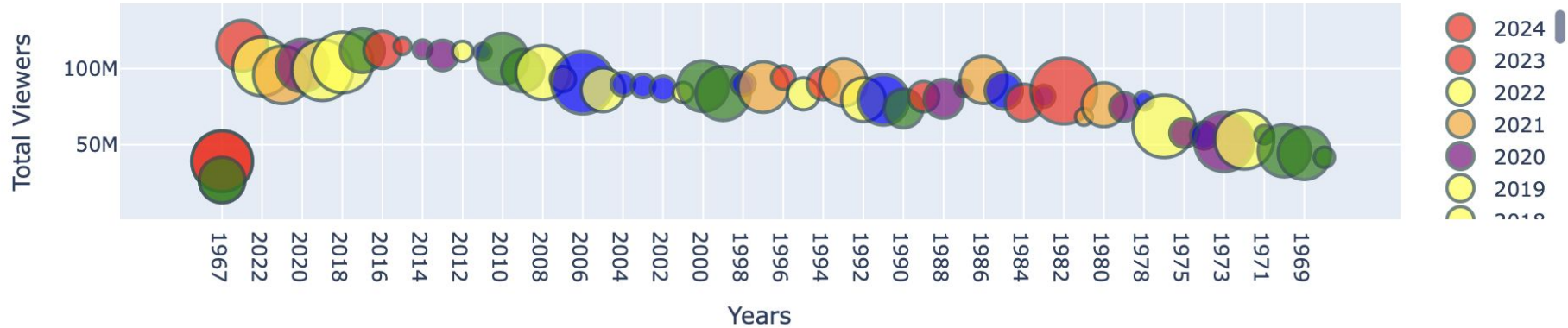
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Super Bowl TV Viewership from 1967 to Present Day Bubble Chart

Super Bowl TV Viewership



Play

Pause

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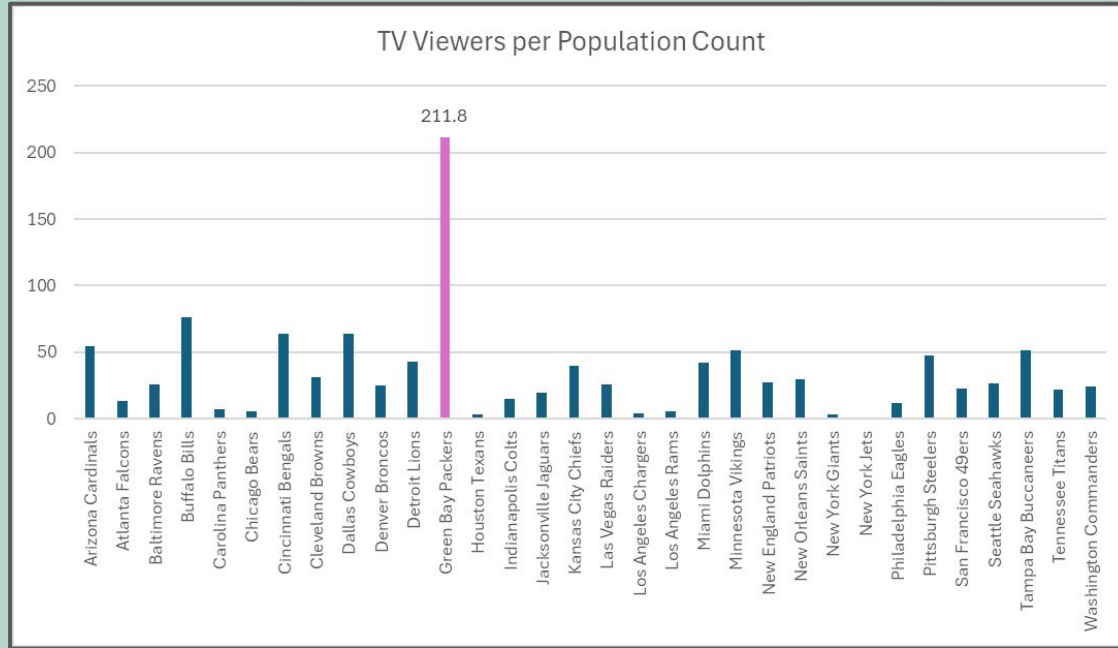
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Green Bay shines as leader in most TV viewers compared to city population



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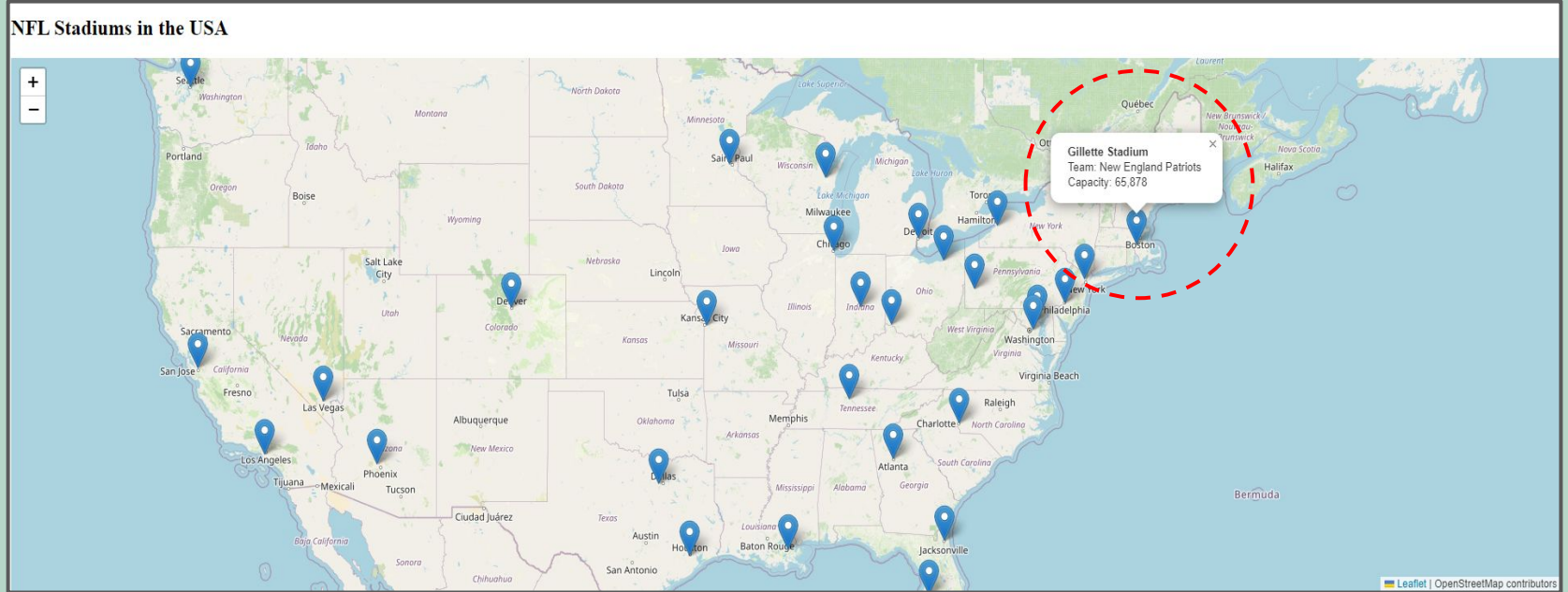
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Engineering stadium data we could visualize where NFL stadiums are located



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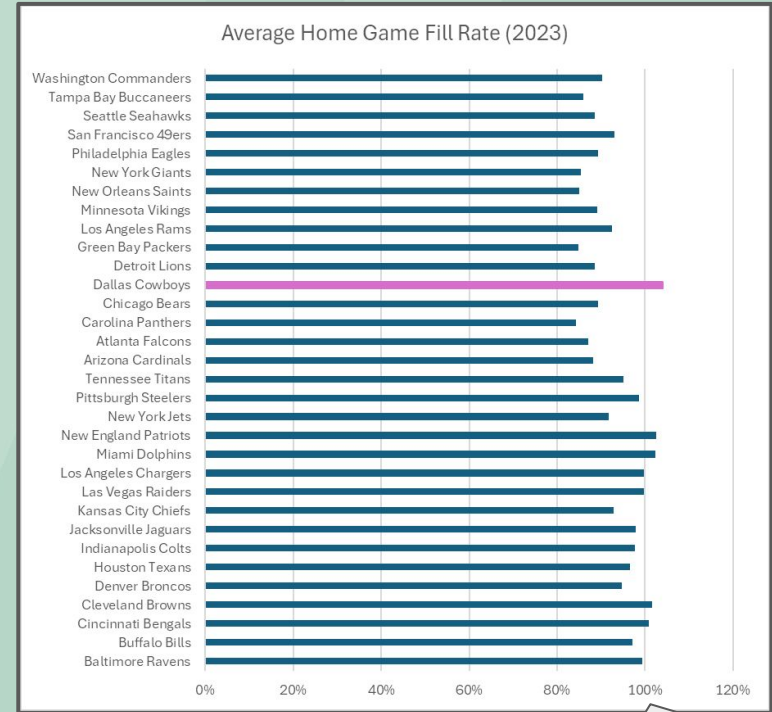
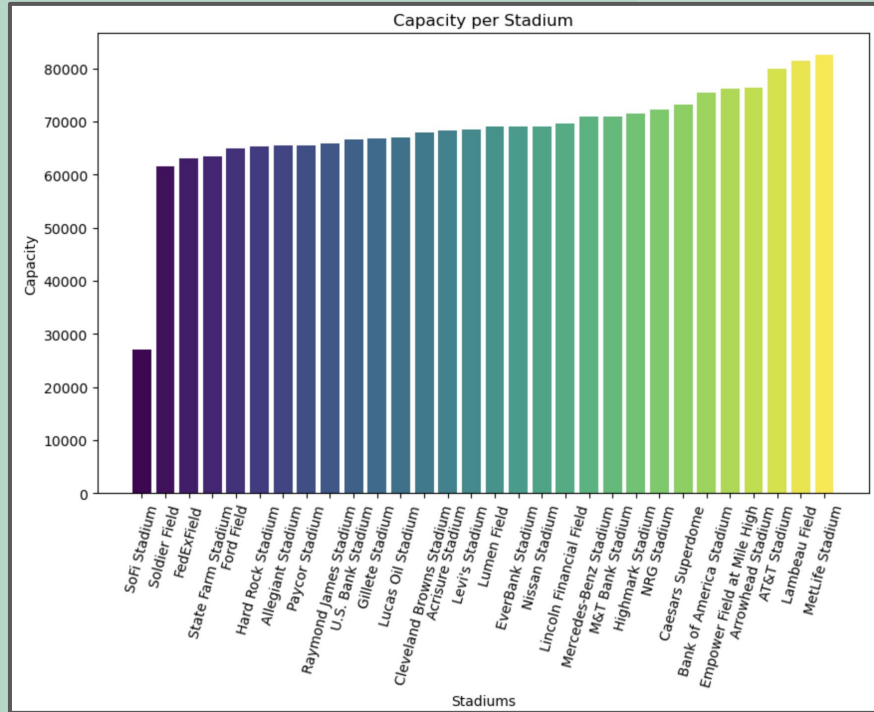
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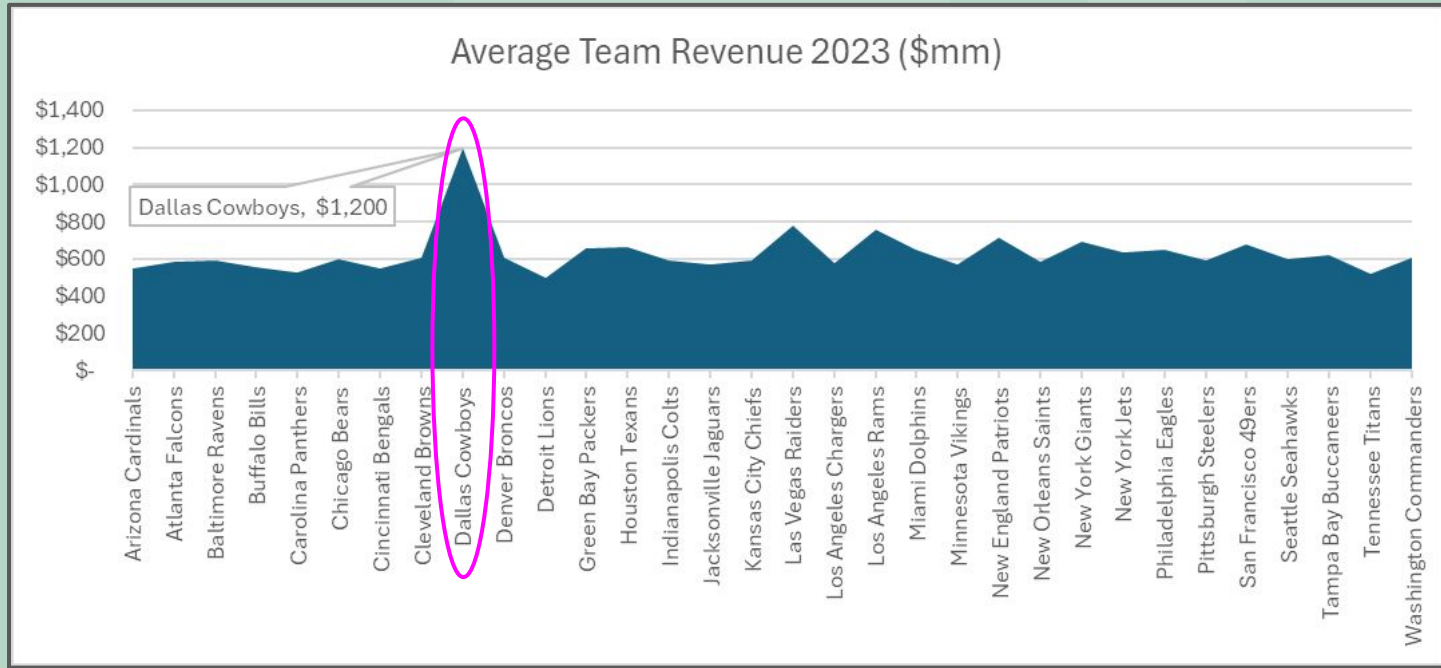
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Stadium capacity data allowed us to draw insights from size and attendance



Some stadiums will adjust configuration to accommodate more than their stated capacity (this is why some stadiums exceed an average of 100% fill rate)

Team revenue metric still keeps the Cowboys on top for most popular



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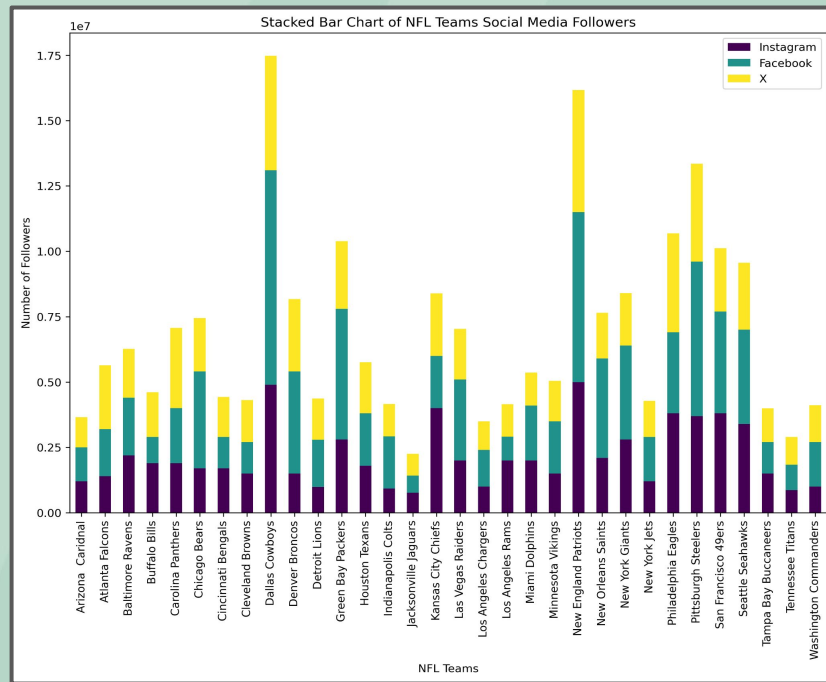
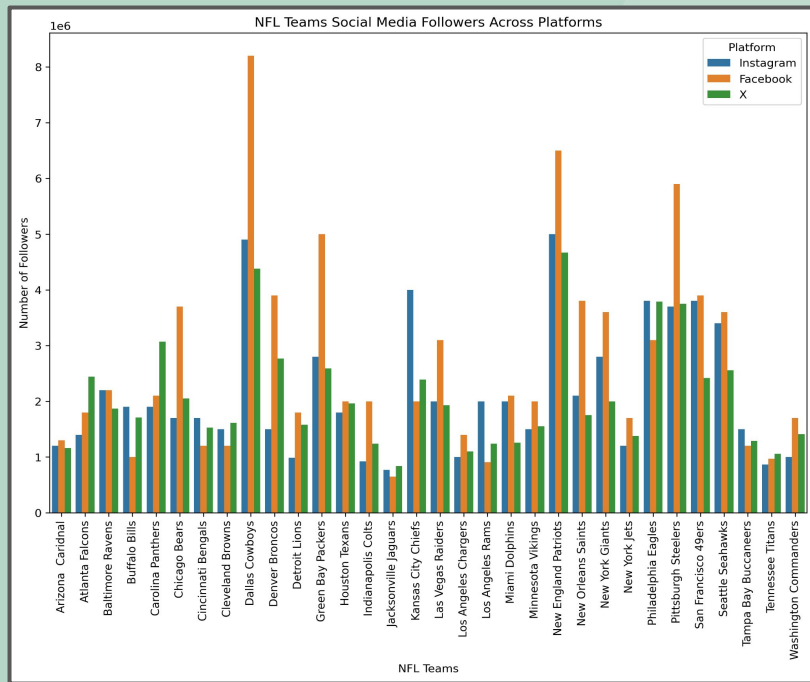
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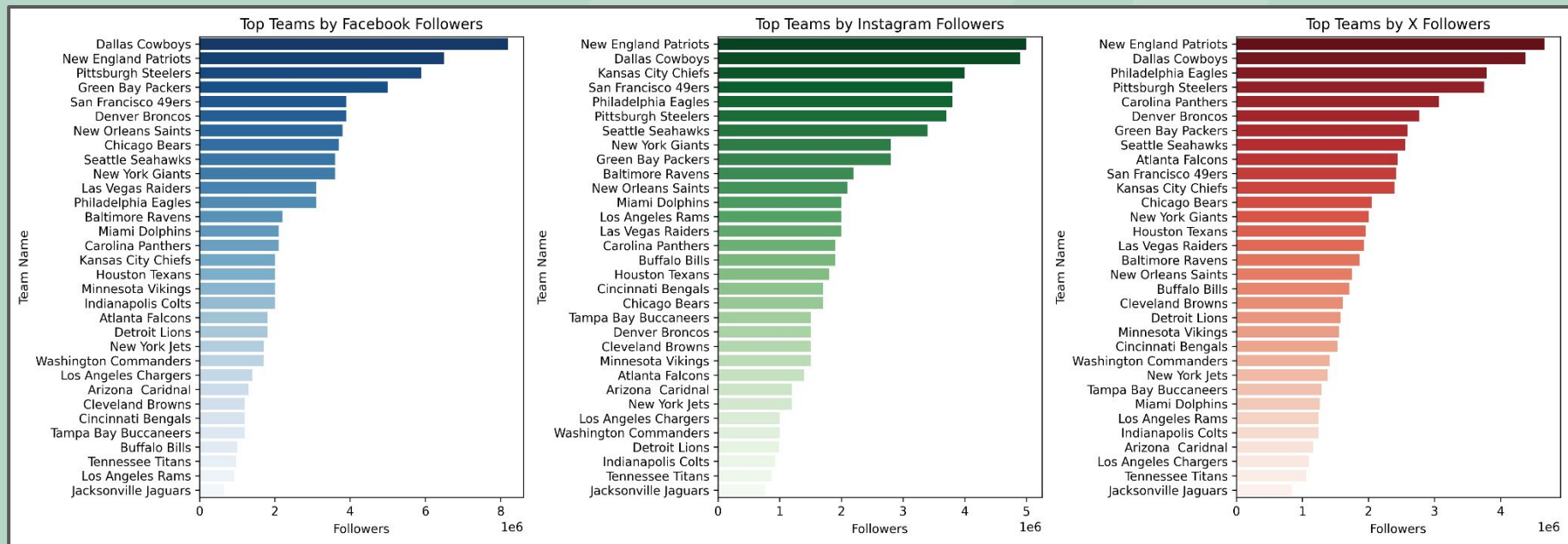
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Cowboys, Patriots, and Steelers lead across Facebook, Instagram, and X (Twitter)



Cowboys lead overall, but Patriots take top spots for X and Instagram



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So, which team is the
Most Popular (based
on our metrics)?

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DALLAS COWBOYS

	TV Viewership per City Population	Attendance Fill Rate	Team Revenue	Social Media Following
	★			
		★	★	★

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Sources

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Facebook Following: <https://www.statista.com/statistics/240028/facebook-fans-of-national-football-league-teams/>

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Kaggle: <https://www.kaggle.com/datasets/kayla96/nfl-teams-data>

Attendance 2023 : https://www.espn.com/nfl/attendance/_/year/2023

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05 THANK YOU!

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Questions?

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