

Data:

| Team_Stats | Team_Standings | Team_Address | 2020_Team_Attendance | 2k_ratings |
|------------|----------------|--------------|----------------------|------------|
|------------|----------------|--------------|----------------------|------------|

Team_Stats: Rk, Team, G, MP, FG, FGA, FG%, 3P, 3PA, 3P%, 2P, 2PA, 2P%, FT, FTA, FT%, ORB, DRB, TRB, AST, STL, BLK, TOV, PF, PTS

Team_Standings: Team, W, L, W/L%, PS/G, PA/G, SRS

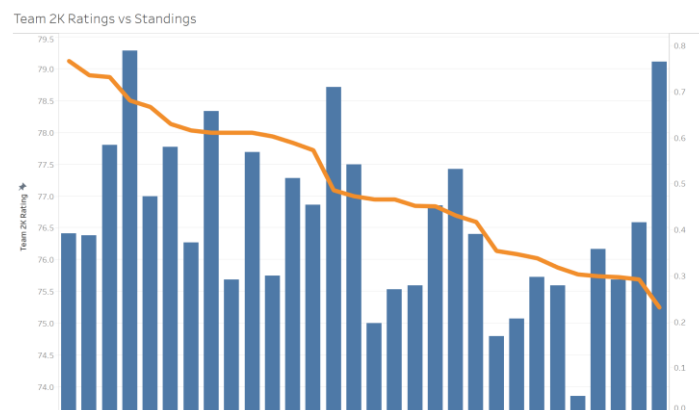
Team_Address: NBATeam, StadiumName, Street, City, Zip, Country

2020_Team_AttendanceTEAM: GMS, TOTAL, AVG

2k_ratings: full_name, rating, jersey, team, position, b_day, height, weight, salary, country, draft_year, draft_round, draft_peak, college, version

I collected data from different websites and put them into different worksheets of a single Excel file. Then, I applied Tableau's union function to link those datasets with the teams' names. Also, I set a filter for all worksheets to hide free agencies' information.

Chart 1:



Concept: As a basketball lover, watching the NBA and playing NBA 2K are my routines. Many super teams have been formed in recent years, and I couldn't help but wonder how significant the impact will be if a team consists of better players than other teams.

Description: I refer to 2K player ratings to evaluate how good players are, and I average a team's player ratings to indicate how good their roster is. Comparing team ratings to team standings, it's clear that a better team roster doesn't necessarily make a team better.

Chart 2:



Concept: I've learned that there is a formula to estimate a sports team's winning percentage. The formula works with lots of sports: baseball, soccer, and our topic, basketball. Hence, I'd like to show how accurate the formula is.

Description: The formula I'm using is $\frac{Ps/G^{13.91}}{(Ps/G^{13.91} + Pa/G^{13.91})}$, "Ps/G" stands for "Points Scored per Game" and "Pa/G" stands for "Points Allowed per Game." The line chart of the actual team winning percentage and the Pythagorean estimated winning percentage shows a high correlation between them.

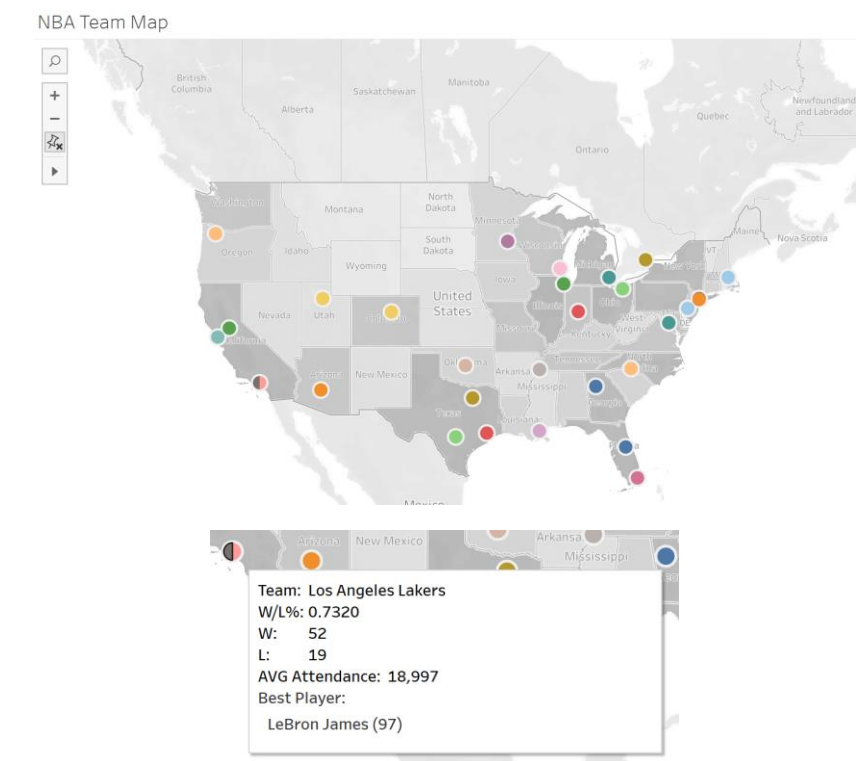
Chart 3, 4:



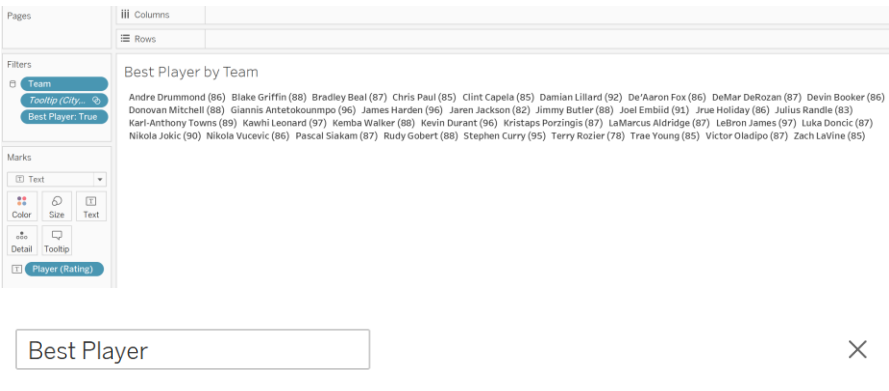
Concept: I calculated the team stats per game using calculated fields and then created parameters for users to choose from.

Description: One of the charts shows the relationship between points scored per game and offense-related team stats and vice versa. The vertical and horizontal lines are the median of the x-axis and y-axis values, and the gray lines are trend lines.

Chart 5:



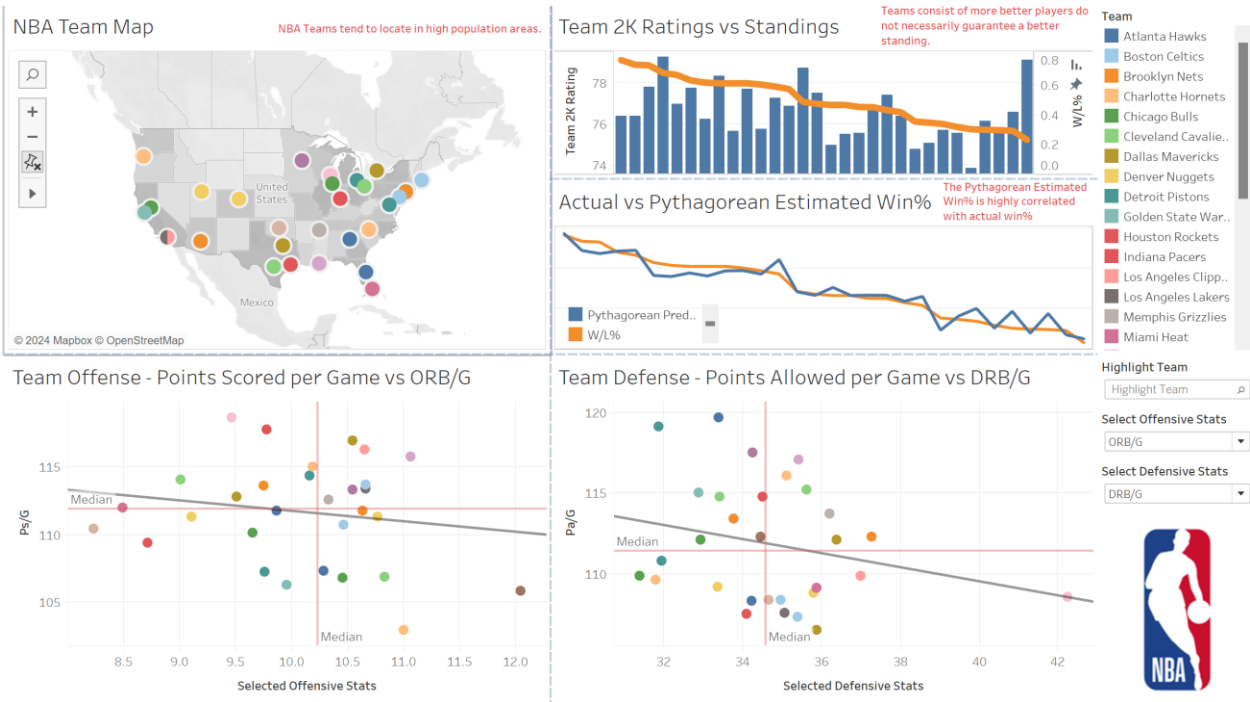
Concept: For the NBA Team Map, I not only presented the teams’ locations but also some brief information, including team names, winning percentage, winning games, losing games, average attendance per game, and their best players with 2k ratings.



{ FIXED [Team]: MAX([Rating]) } = [Rating]

Description: I wrote a code to distinguish teams’ best players and filtered. Also, I showed the population map layer to identify where the NBA teams tend to locate.

Dashboard:



There are parameters to choose to see the relationship of Team Stats and their performance, and a Highlight filter to track a specific team.

This popup displays detailed statistics for the selected team, the Los Angeles Clippers. It includes a header with a team icon and a "Team Filter" link. The statistics shown are:

- Team: Los Angeles Clippers
- W/L%: 0.6810
- W: 49
- L: 23
- AVG Attendance: 19,068
- Best Player: Kawhi Leonard (97)

At the top of the popup, there are interactive controls: a "Keep Only" button (checked), an "Exclude" button, and icons for linking, unlinking, and a list view.

Also, clicking the dots on the map enables users to filter the selected team to other worksheets.