

WhICH THAN WILL WIN THIT SUPम! BOWLT?

With a mere five weeks left in the regular season, NFL followers are anxiously awaiting Super Bowl LVII. The game is scheduled for February 12, 2023, at State Farm Stadium in Glendale, Arizona. With the fans in mind, FiveThirtyEight has created a 2022 NFL Predictions chart updated after every game. Each row has a categorized list of "playoff chances" for each team based on data collection using the Elo rating system. Their weekly status and division and quarterback stats are also provided. This is a great resource for those new to pro football or staunch NFL fans looking to better understand the game. As excitement brews for February, let's talk Super Bowl predictions!

## UNDHRSTANDINE HIO RATINE

Elo rating is a simple system that judges teams or players based on their performance and results. It was created by Hungarian physicist Arpad Elo from which the system gets its name. Elo has been used to rate performance in football, basketball, baseball, tennis, and various other sports over the years. Elo assigns every team a "power rating." These ratings are used to generate win probabilities for games based on the difference in quality of the two teams involved.

In addition, adjustment for changes in starting quarterback, the location of the match (including travel distance), and time for rest of players is taken into account. After each game, each team's initial rating changes based on the result in relation to how unexpected the outcome was and the winning margin. This process is repeated, for every team, after every game from September on.

For any game between two teams (A and B) with certain pre-game Elo ratings, the probability of Team A winning is:

$$
\operatorname{Pr}(A)=\frac{1}{10^{\frac{- \text { EloDiff }}{400}}+1}
$$

EloDiff is Team A's rating minus Team B's rating, plus or minus the difference of several adjustments.

Elo is simple, transparent, and easy to work with. FiveThirtyEight has used this formatting to calculate point spreads and the probabilities of winning games for several teams and sports.

## THE NEL

The National Football League (NFL) is an American professional football league that consists of 32 teams in the United States and Canada. The teams are divided equally into two conferences: The American Football Conference (AFC) and The National Football Conference (NFC). Each NFL season begins with a
three-week preseason in August, followed by an 18-week regular season which runs from September to early January. Following the conclusion of regular season games, seven teams from each conference (four division teams and three wild card teams) advance to the playoffs, a single elimination
tournament that culminates in the Super Bowl, the championship that is played between the NFC and AFC conference champions in February. The NFL is nationally recognized popular American entertainment. The 2022 Super Bowl was viewed by 99.18 million Americans.

## SUPFRBOWL LVII

 PREIDCTIONSAs explained previously, NFL teams are ranked using the Elo rating system and their rankings change weekly based on game performance. FiveThirtyEight makes the "playoff chances list" easy to navigate for fans by calculating their performance as percentages. FiveThirtyEight includes chances that each team will win their division, be the first-round pick for the Super Bowl, and ultimately win The Super Bowl. The teams' rankings change after every game. Currently, the Philadelphia Eagles (12 wins, 1 loss) are the leading NFC team, with an $87 \%$ chance of winning their division and a $24 \%$ chance of winning the Super Bowl. The leading AFC team is the Buffalo Bills (10 wins, 3 losses), the leading AFC team in league with a $92 \%$ chance of winning their division and a $19 \%$ chance of winning the Super Bowl.

## CRAPH \#1

For this graph, we used Flourish to produce a Scatterplot to visualize each of the 32 teams' probability of winning the Superbowl. The percentage of the likelihood for each team was calculated using Elo data as well as current atendoinges. cocdetidiothed lyploes to represent each of the eight divisions in the NFL. To make the graph interactive, pictures of each team's logo have been coded in for viewers to scroll over each plot and see which team is which.

Similarly, the option to search for a specific team and see their probability is also available. From this graph, we can interpret that the Eagles, the Bills, the Chiefs, and the Cowboys are poised to win the Superbowl.

How Likely Is Each NFL Team to Win the Super Bowl? All

DIVISION NFC East AFC East AFC West NFC North AFC North AFC South NFC South NFC West


## GRAPH \#2

This Datawrapper graph shows the direct comparison of quarterbacks' values. The first dots indicate the QB values pre-game, and the second ones indicate the QB values post-game.

## NFL QB Values Pre and Post Game

Graph below shows the QB values pre vs. post game for each NFL team


To get to this visual, we took the raw values next to the Elo ratings pre and post-game. For quarterbacks from each team, their values can go up or down depending on if they win or lose a game. In this case, if the two teams draw, it means that the QB values will likely stay the same. The further the deviations between the dots, the more inconsistent the team performs.

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Statistics and formulas can make predictions about NFL teams' success. However, fan engagement is what makes the NFL iconic. We asked NFL fan Ritesh Vidhun about his 2023 Super Bowl predictions. Ritesh is a student at Tufts University in Medford, MA. Ritesh frequently engages in NFL-related media and news. Ritesh watches news related to the NFL twice a week on average. His interests include trading players, general team news, and game results. Ritesh is a staunch New York Giants (7-5) fan. However, he does not predict they will go to the Super Bowl. He says, "They will most likely not get past a wildcard spot." Instead, Ritesh predicts that the Tampa Bay Buccaneers (6-7) will go to the Super Bowl.

IThe Buccaneers won the Super Bowl in 2021. Their starting quarterback is Tom Brady, who is a seventime Super Bowl champion 5 time Super Bowl MVP. Finally, we asked Ritesh how he feels about sports predictions and how it affects today's media surrounding the NFL. Ritesh said, "Sports predictions are not accurate and cannot be trusted. If the predictions are positive, they do help growth and interest in the franchise."

## CONCLUSION

As Super Bowl LVII grows closer, fans will continue to make their own predictions about who will be the NFC and AFC champions. Who will ultimately win it all? NFL weekly predictions are an exciting way to engage with the game and the teams you love.

