

Charging Up the Offense

Paul Trusela, Anthony Fernandez, Mitch Jeter, Joey Keller

Summary

In the world of football, there are many things that make a team great and enjoyable to watch. You can ask any fanbase and they will give you a reason why their team is the best in the league and how they will go on to be the next Super Bowl Champs. But at the end of the season, there can only be one true champion.

Background

For our project, we are going to be looking at how to improve the Los Angeles Chargers and make them Super Bowl contenders with the use of data and statistics. The Chargers made the bold decision of moving from San Diego to Los Angeles in 2017. This was done to build a bigger fan base and move into a city that has significantly more people who have an interest in putting their time and money into watching football. What drives more people into becoming fans and attending games? Winning. Being that the Chargers are a team that seemingly has all the pieces needed to achieve the status of Super Bowl Champions, they still fall short of the playoffs almost every year. Is this a quarterback problem? A defensive problem? Or maybe is it the division that they are in?

With Justin Herbert as the current signal caller of the team and a constant rotation of above average offensive players (Kennan Allen, Austin Ekler, Antonio Gates) it does make one curious on how they can simply not break through. The defense has seen many great players in recent years such as Khalil Mack, Derwin James Jr. and Eric Weddle. Maybe the problem is that their “super stars” are not surrounded by quality role players.

Problem

We started off our analysis by looking across the team's play-by-play stats from 2018 to 2023. We needed to use statistics from recent years as those have more relevance to how the offense and defense have been coached and how the coordinators developed them, as compared to the 2000s and early 2010s. With this data, we wanted to compare the Chargers to the average NFL team as well as the teams that make the playoffs.

We started on the defensive side of the ball, there were a set of stats that playoff teams excelled in that made them "top tier". These stats included sacks, interceptions, and pass completion against that defense. Let's dive deeper into these stats and see where the Chargers land.

EDA Result/ Analysis

From 2018 and 2023, the NFL average was roughly 2.78% of snaps that resulted in a sack. The Chargers came in below average at 2.65%. When compared to teams that made the playoffs, the Chargers 2.65% was lower than the playoff teams average of 2.93%. We are already off to a bad defensive start in our data analysis. The Chargers interception rate was at 0.98% of snaps that resulted in an interception which was slightly higher than the league average of 0.92%. Compared to the playoff teams 0.99% interception rate, the Chargers were slightly below average at their 0.98%. The stat that really threw us off was the completion percentage allowed against the defense. The Chargers sat at 26.15% completion percentage which was worse than the league average of 26.07%, but it was higher than the playoff teams average of 27.21%. This led us to believe that maybe playoff teams were focusing more on paying offensive players for their offensive production while keeping an average defense on the field.

We moved on to the offense side of the ball to see where the Chargers lacked while trying to move the ball down the field. The three most important stats that our models gave us were yards gained, interceptions thrown, and completion percentage. All of this made sense as the defensive stats were telling us that we want to avoid teams from moving the ball down field on these same statistics.

Starting with yards gained per play, the Chargers 5.52 yards per play was above the league's average of 5.34 and higher than the playoff teams average of 5.39. We then investigated the average number of interceptions thrown per game. The Chargers have been sitting at 1.18 interceptions thrown per game. The league average was 1.21 and the playoff teams were sitting lower at 1.17 per game. Lastly was completion percentage. The Chargers were averaging 37.53% compared to the league average of 34.00% and compared to the playoff team average of 34.10%.

So what're they missing? The Chargers seemingly had a decent offense and defense during this time yet only had two playoff appearances in 2018 and 2022 to show for it. We sat down and decided to dive deeper into the problem. What we came up with would really show us what was missing. Explosive plays!

We defined an explosive play as any passing play over 20 yards and any rushing play over 10 yards. After running all the play-by-play data, we found that the league average for explosive plays per game was at 10.36. The Chargers? A measly 5.57 per game. Could this be the difference? The lack of play makers? We finally found our issue!

Sure, the Chargers could move the ball down field with the best of them. As well as making defensive stops when needed. But the problem was momentum. The lack of explosive

plays has been dwindling their chances of making the playoffs and giving themselves chances to make a Super Bowl run.

Results/Recommendations

We went ahead and put together a list of the top Running Backs and Receivers who had the highest average Explosive plays in the league from 2021 to 2024 to see where Chargers plays stood against the league. We started by looking at the Chargers starting running back, J.K. Dobbins. He is currently averaging 2.41 explosive plays per game. Which is currently the tenth highest on the list with names like Christian McCaffrey and Saquon Barkley behind him. That being said, running back is not the issue that the team is facing.

Next, we will move onto receivers and see the impact that they are having on the team. The Chargers WR1, WR2 and WR3 are Ladd McConkey, Quentin Johnston, and Joshua Palmer. McConkey is sitting at 1.33 explosive plays per game which is tied for 118th amongst receivers. Johnston at 1.5, which is tied at 53rd amongst players and Palmer at 1.42 which is 92nd. This leads us to believe that receivers are where they are lacking.

We went ahead and went on fanspo.com to evaluate reasonable trades that have actual value and not just crazy hypotheticals that you would see in video games to make super teams. For starters, we want a young WR with a high explosive play percentage. First target, Puka Nacua from the LA Rams. Using fanspo.com, which takes into account salary cap and performance attributes for each player, we were able to get a hypothetical trade of Joshua Palmer and a 5th round pick for Puka Nacua to go through. With Puka averaging 2.19 explosive plays per game, we are looking at 13.09 more explosive plays per season. Next, we want to go after Kadarius Toney, a young twenty-five-year-old receiver on the Cleveland Browns who is

currently signed to the practice squad. With the Browns at the bottom of the league, they would be more inclined to trade away good players for less return value in order to help them rebuild. With this being said, fanspo.com believes that a trade would go through if we traded them for a 7th round pick. Being that Toney is a dual threat receiver who also takes handoffs, we would be gaining another 2.25 explosive plays per game. The last addition that we would go after is Tee Higgins from the Bengals, who is averaging 1.76 explosive plays per game. Fanspo.com tells us that we would need to trade away Quentin Johnston to have them accept the trade, but that would give us 4.42 more explosive plays a year.

These three trades would give Justin Herbert three strong receivers to pass to who can all be difference makers throughout the season. Without giving up too much to get these players, the Chargers would be set up to really have a top tier offense that could compete with other playoff teams. Since our findings show that an average defense can hold their own going into the playoffs, our main concern is finding explosive offensive weapons to help stimulate a powerhouse offense, which we believe we have done. Now let's go get some more wins and have a dynasty to remember with strong playoff runs and a few Super Bowls to show for it!