"Defense Wins Championships" - is that true?

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Intro

I have loved sports for my entire life, and one of my favorite sports to watch is the NFL. In my life, I have always been told that "defense wins championships." For every sport I played, basketball, football, baseball, etc. My father and the coaches for my teams would always tell me that the best defenses won the championships. When the Giants won Super Bowls 42 and 46, as a Giants fan I was thrilled that they won it. My dad and I watched the games intently for 3 hours. When both were over I was told that the Giants won because of their defense, and I believed it. However, when I look back on their team, their defense was in the lower tier of the NFL both times. In fact, leading up to the Super Bowl, throughout the playoffs, the patriots averaged less points allowed per game. More recently, in the 2020 super bowl, the Kansas City Chiefs won led by an incredibly talented offensive team with a subpar defense. Their opponent, the San Francisco 49ers were led by the 2nd best defense in terms of yards allowed per game, and 7th in points allowed per game, compared to the Chiefs's 17th and 10th respectively. In my time as a fan I've always been told that "defense wins championships," for my project I sought out: Does the mantra "defense wins championships" statistically apply to the NFL in the past decade. For my research with the mantra, the "defense" was how well the team performed defensively in terms of total yardage and total points allowed.

- Super Bowl 46, Giants - Patriots
- Throughout the 2011-12 season, the Giants had the 25th ranked defense in terms of yardage.
- They actually used their pass rush to pressure the patriots offensive attack which played a major role in their super bowl win.
- The Patriots also had the 15th ranked defense yet made it to the Super Bowl

- In 2018, the 4th, 14th, 20th, and 24th ranked defenses were the final four teams remaining, indicating that defense may not matter as much.

NFL playoff bracket, 2018–2019

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Penalties
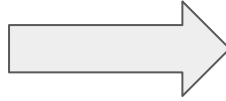
- **This was called a pass interference**

- A decade after 2004, there was a 15 percent increase in first downs resulting via penalty.
- Defensive players are afraid to make unnecessary contact or excessive contact to prevent the offenses from making a play.
- Penalties have given modern day offenses the ability to dictate the outcomes of games much more than it has in the past.
- There should be levels to defensive pass interference because the call can so greatly change the dynamic of a game. A play with little contact can end up being a 50 yard penalty where the call may have been questionable.
- With the dynamics of a call like defensive pass interference, there is a lot of pressure put onto the defensive backs or linebackers in rarer cases to not commit an infraction because of the possible negative outcome.
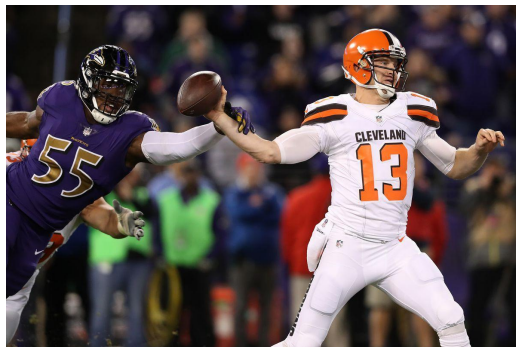
Positional Value

- Current Super Bowl champions, the Tampa Bay Buccaneers.
- Based on research done on the makeup of a "successful" NFL team from Steven Vu:
  - Given a statistics run of all the positions, in terms of statistical correlation to win, from the test run, the two least important positions are defensive backs, and members of the front 7 (defensive line and linebackers). Oline is the most important position, followed by running back, wide receiver/tight end, and quarterback. All the offensive positions are more important that the defensive positions.
- The data suggests that winning is more offensively driven.

Turnovers

Turnovers

- Through a binary logistic regression ran by Matthew Gifford and Tuncay Bayrak:

    - The 4 most important variables in winning an NFL game are offensive turnovers, defensive turnovers (takeaways), rush yards allowed by the defense, and total yards gained, with offensive turnovers being the most important statistic.

    - With no more than one offensive turnover, and at least two defensive takeaways, 83% of teams were able to win.

    - With two or more offensive turnovers, only 32% of teams were able to win.

- Through other research done by Julian Ryan:

    - A team with a positive turnover differential was more than 19% likely to win the game. If they had 2 or more turnovers they were more than 33% likely to win the game.

Super Bowl 50

- Super Bowl 50, Panthers versus Broncos.
- The Panthers played amazing defense, they gave up the least amount of yards of a Super Bowl loser, they gave up less than 200 yards and gained more offensive yards than the Broncos by a large margin, yet still lost the Super Bowl, and it wasn't close.
- The Broncos had a +2 turnover margin, and got a defensive touchdown, both of which played a huge role in their Super Bowl win.

Conclusion - Defense does NOT win championships.

According to the evidence I've found, the NFL is beginning to become more reliant upon the offense creating turnovers (enabling defensive takeaways), in addition to offensive players being able to dictate game outcomes through penalties enabling more offensive success. Additionally, as stated earlier, in terms of positional impact on team success, every single offensive position makes more of an impact than any single defensive position, highlighting the importance of offense in today's NFL. There are too many variables that make an impact on game results, like offensive turnovers, turnover margin, defensive takeaways, first downs, and many more. My career as an NFL fan has been a lie. I have always believed that defenses were what won teams super bowls, but now I know that's just not true. Having a good defense is just a small variable in the formation of a super bowl team.

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