



NFL Dashboard: Offense vs Defense

Helen Le – CIS 450-50

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01

Offensive Performance

A glance at overall offensive performance in the league

Offensive Performance

Average of Points

358.63

Maximum Points Scored

606

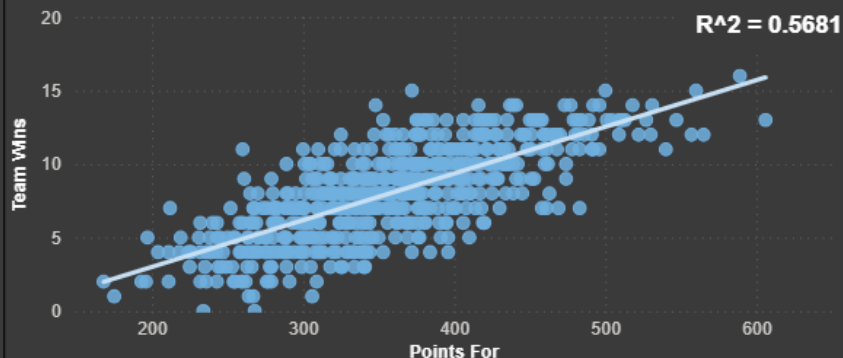
Average Points Scored Per Game

22.22

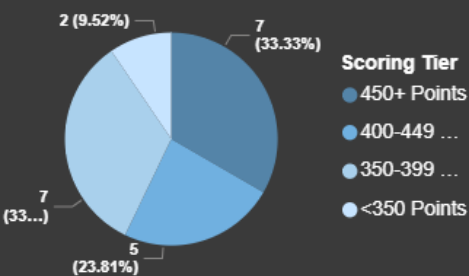
Year

- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010

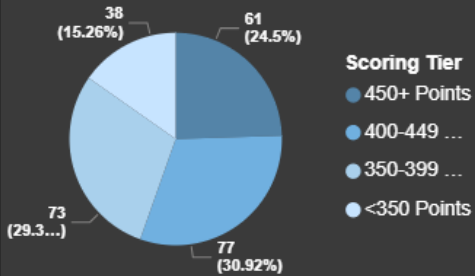
Offensive Scoring vs. Team Wins



Super Bowl Winner Composition by Scoring Tiers



Playoff Composition by Scoring Tiers

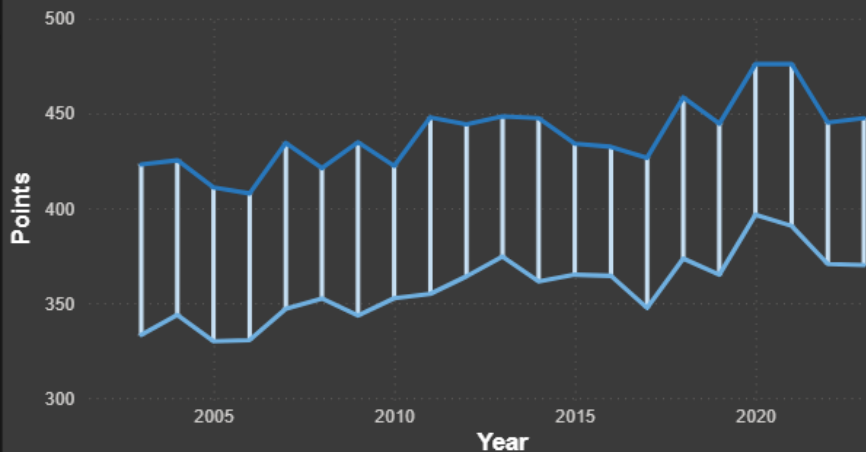


Heat Map of Offensive Ranking

Team Name	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Arizona_Cardinals	32	26	17	19	7	3	11	26	24	31	20
Atlanta_Falcons	20	16	14	25	29	10	13	5	7	7	1
Baltimore_Ravens	8	20	25	12	24	11	9	16	12	10	11
Buffalo_Bills	30	7	24	23	30	23	28	28	14	21	12
Carolina_Panthers	15	13	8	27	26	7	21	32	5	18	13
Chicago_Bears	23	32	26	2	18	14	19	21	17	16	14
Cincinnati_Bengals	13	10	4	8	11	32	22	22	18	12	10
Cleveland_Browns	29	27	32	30	8	30	29	31	30	24	15
Dallas_Cowboys	21	25	15	4	2	18	14	7	15	15	16
Denver_Broncos	10	9	7	17	21	16	20	19	25	2	17
Detroit_Lions	26	24	28	21	16	27	27	15	4	17	18
Green_Bay_Packers	4	5	22	22	4	5	3	10	1	5	11
Houston_Texans	28	21	26	28	12	17	10	9	10	8	12
Indianapolis_Colts	2	1	2	2	3	13	7	4	28	18	19
Jacksonville_Jaguars	25	29	12	9	6	24	24	18	28	30	20
Kansas_City_Chiefs	1	2	6	15	31	26	23	14	31	32	21

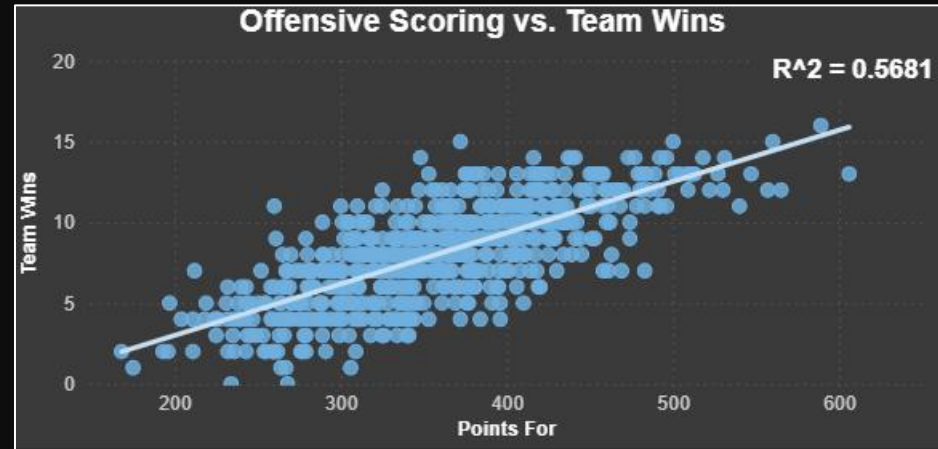
League Point Average and Top 10 Offensive Point Average By Year

● Average of Points ● Top 10 Offense Average



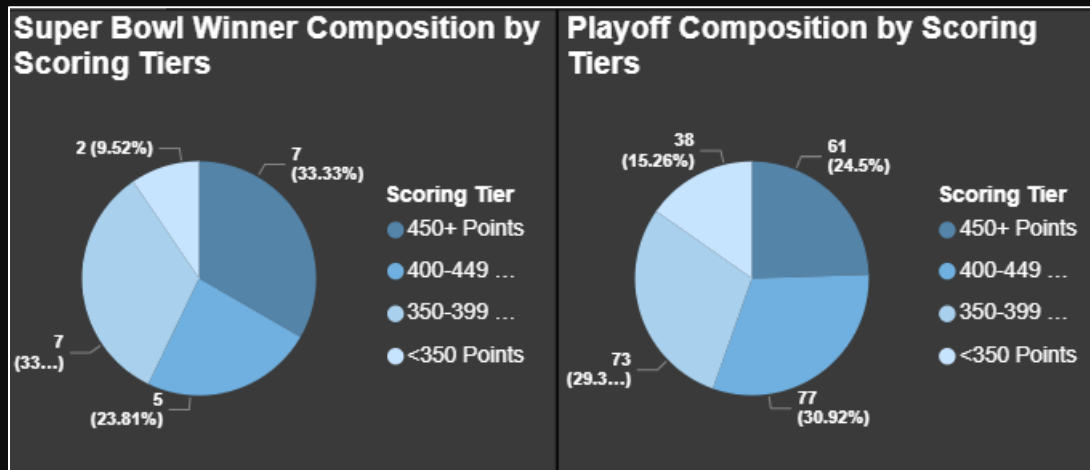
Offensive Scoring vs. Team Wins

- Shows a **moderate-to-strong correlation ($R^2 = 0.5681$)** between points scored and wins
- Higher scoring teams generally win more games, highlighting offense as a **significant driver of success**



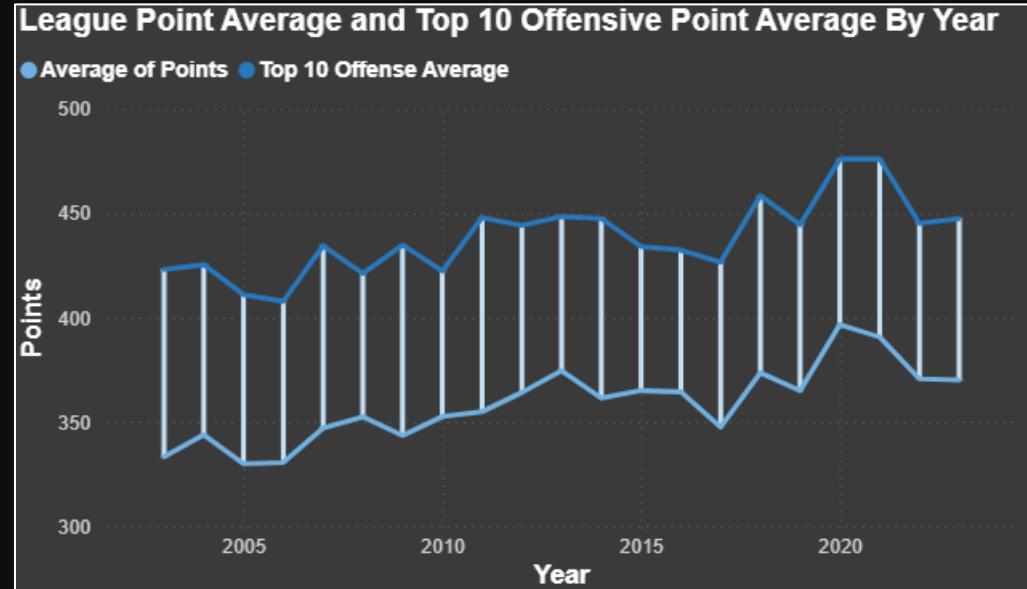
Super Bowl & Playoff Teams by Scoring Tiers

- Super Bowl winners are rarely from the <350 points tier
- Elite offenses (450+ points) are strong in winners but not exclusively dominant
- Playoff distribution shows that scoring at least **above-average is necessary** to make the postseason
- Indicates that **offense is necessary but not sufficient** to win championships



League Average vs Top 10 Offense Average

- Both league and top 10 offense scoring trends steadily increase over time
- Distance lines show **how much top offenses outperform the average**:
 - Large distance** → Elite offenses dominate and likely gain more wins
 - Small distance** → Advantage is smaller, leaving room for defense or other factors to influence success



Conclusion

- **Offense Matters:** Higher scoring teams consistently achieve more wins and reach the playoffs
- **Elite Offense is Advantageous but NOT Decisive:** Super Bowl victories are not limited to only the highest-scoring teams
- **Complementary Factors Matter:** Defense and situational performance likely determine ultimate success in championship games

02

Defensive Performance

A glance at overall defensive performance in the league

Defensive Performance

Average Points Allowed

358.63

Maximum Points Allowed

519

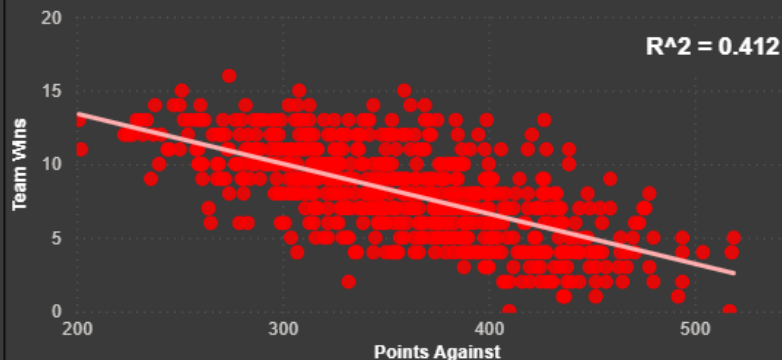
Points Allowed Per Game

22.22

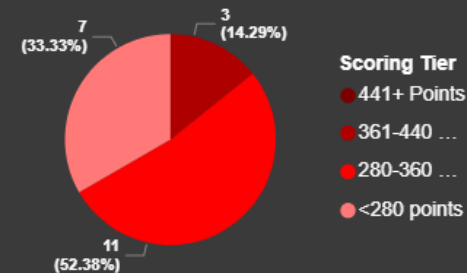
Year

- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010

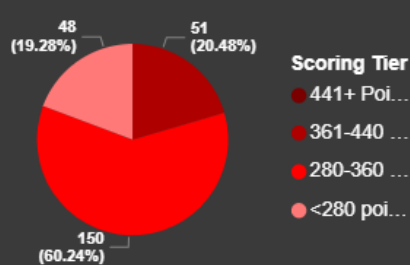
Defensive Strength vs Team Wins



Super Bowl Winner Composition by Defensive Tiers



Playoff Composition by Defensive Tiers

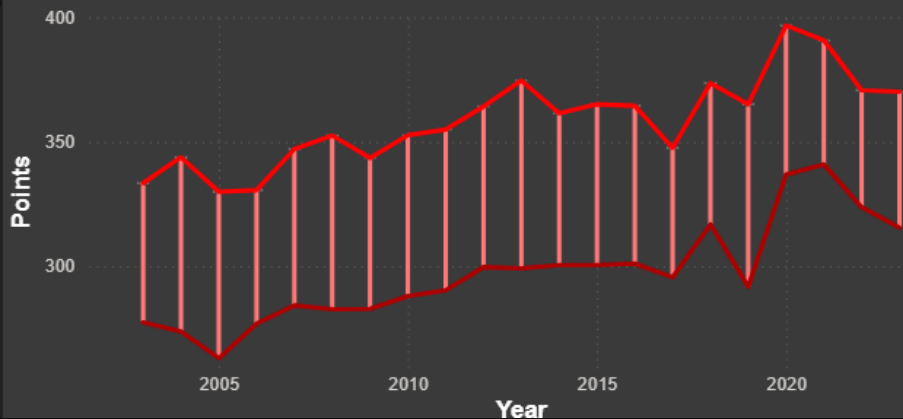


Heat Map of Defensive Ranking

Team Name	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Arizona_Cardinals	32	12	26	29	27	28	14	30	17	17	7
Atlanta_Falcons	30	14	18	15	29	11	14	5	18	5	27
Baltimore_Ravens	6	6	10	1	22	3	3	3	3	12	12
Buffalo_Bills	5	8	24	10	18	14	16	28	30	26	20
Carolina_Panthers	10	15	5	8	15	12	9	26	27	18	2
Chicago_Bears	22	13	1	3	16	16	21	4	14	3	30
Cincinnati_Bengals	28	21	22	17	24	19	6	24	9	8	5
Cleveland_Browns	12	24	11	22	21	16	21	13	5	19	23
Dallas_Cowboys	2	27	12	20	13	20	2	31	16	24	26
Denver_Broncos	9	9	3	8	28	30	12	32	24	4	22
Detroit_Lions	25	18	21	30	32	32	32	19	23	27	15
Green_Bay_Packers	11	23	19	25	6	22	7	2	19	11	24
Houston_Texans	27	15	32	25	22	27	17	29	4	9	24
Indianapolis_Colts	20	19	2	23	1	7	8	23	28	21	9
Jacksonville_Jaguars	18	7	6	4	10	21	24	27	11	29	28
Kansas_City_Chiefs	19	29	16	11	14	29	29	11	12	25	5

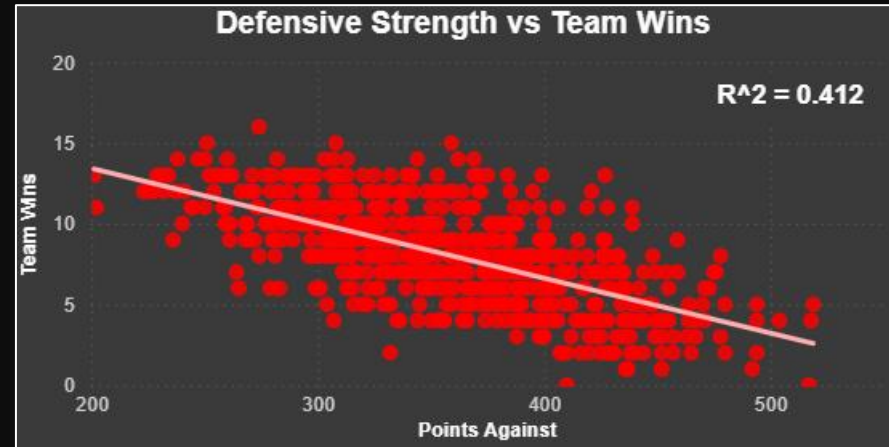
League Point Allowed Average and Top 10 Defensive Point Average By Year

● Average of Points Against ● Top 10 Defense Average



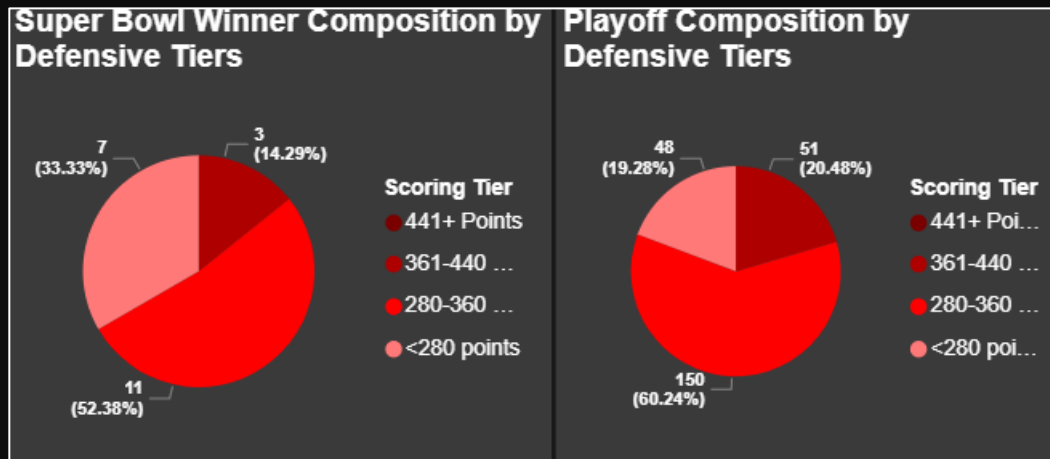
Defensive Strength vs. Team Wins

- Shows a **moderate correlation ($R^2 = 0.412$)** between defensive strength and team wins
- Low points allowed teams tend to win more games, but **defense plays a smaller role** for success than offense



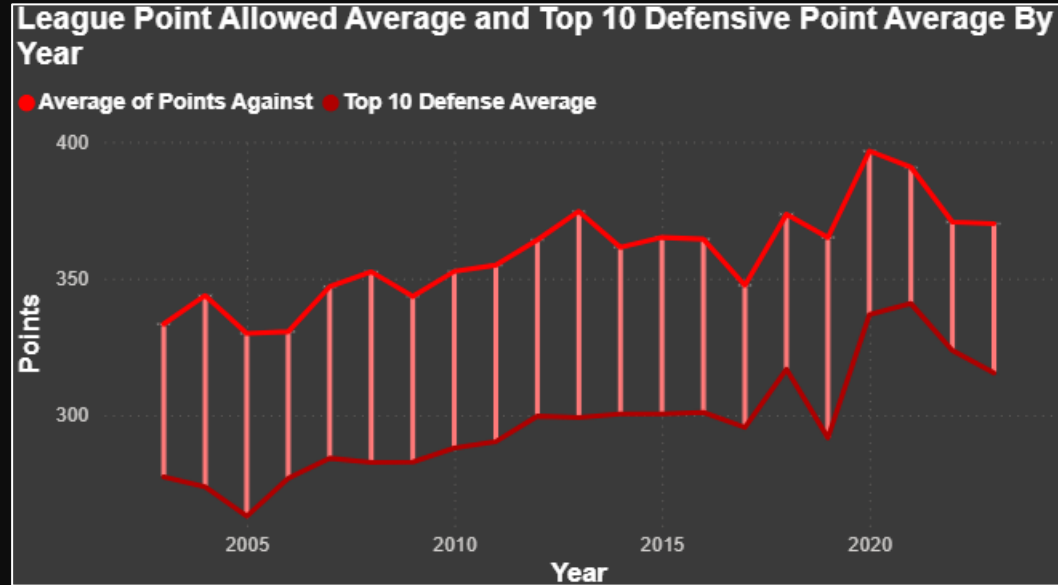
Super Bowl & Playoff Teams by Defensive Tiers

- Teams **failing to defend 441+ points** have **never** made it to the playoff (and thus Super Bowl) from 2003-2023
- Good-to-great defenses are **extremely common among Super Bowl winners**, more so than elite offenses
- **Playoff teams** overwhelmingly come from the **top two defensive tiers**



League Average vs Top 10 Defense Average

- Both league and top 10 defensive points allowed trends steadily increase over time
- Distance lines show **how much top defenses outperform the average:**
 - Large distance** → Elite defenses dominate and likely gain more wins
 - Small distance** → Advantage is smaller, leaving room for offense or other factors to influence success



Conclusion

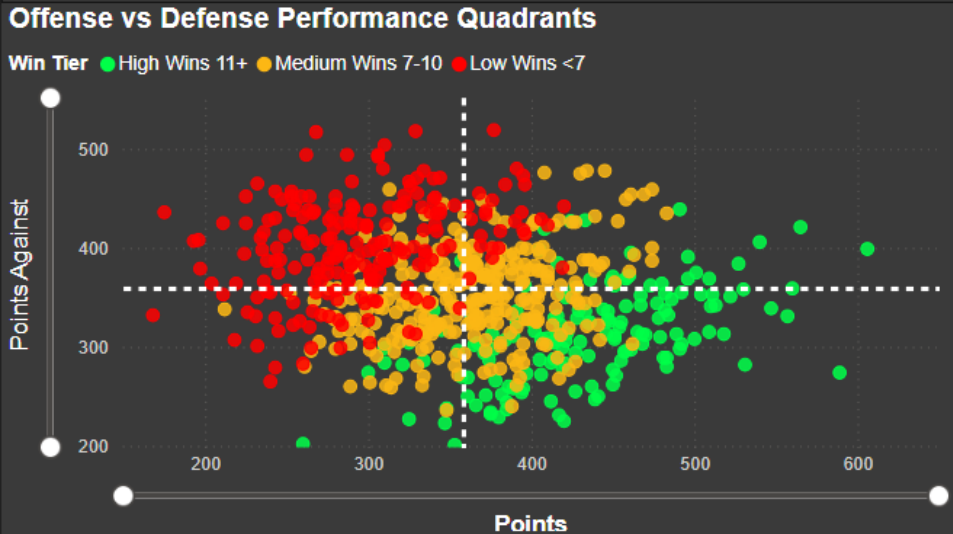
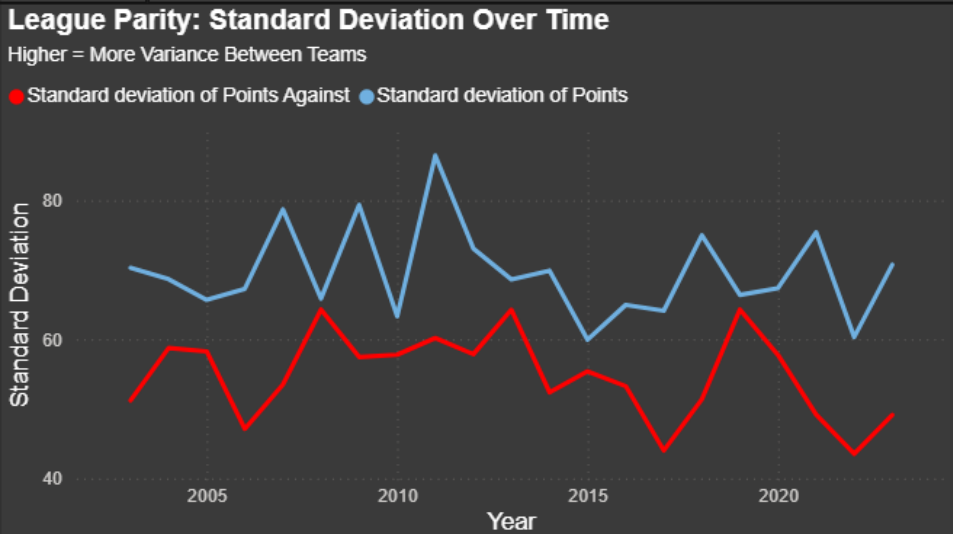
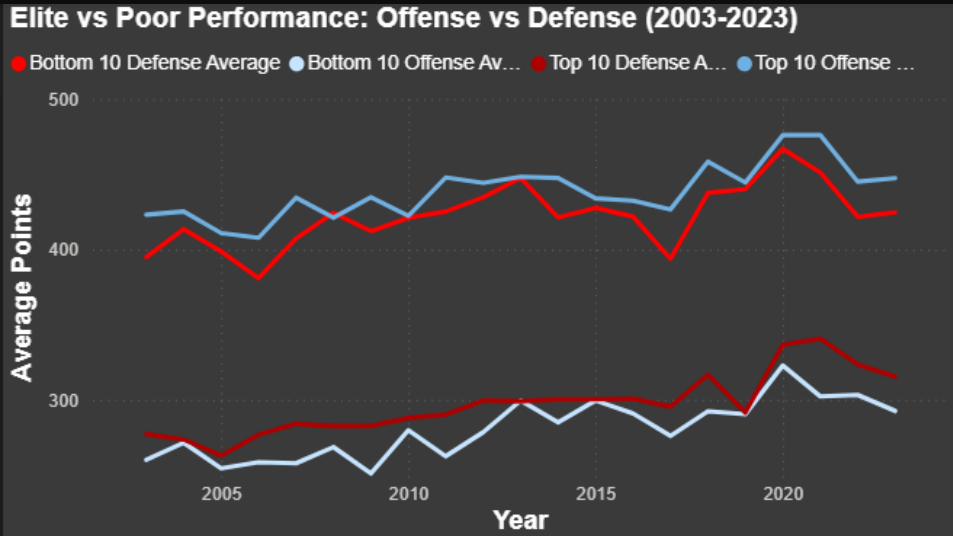
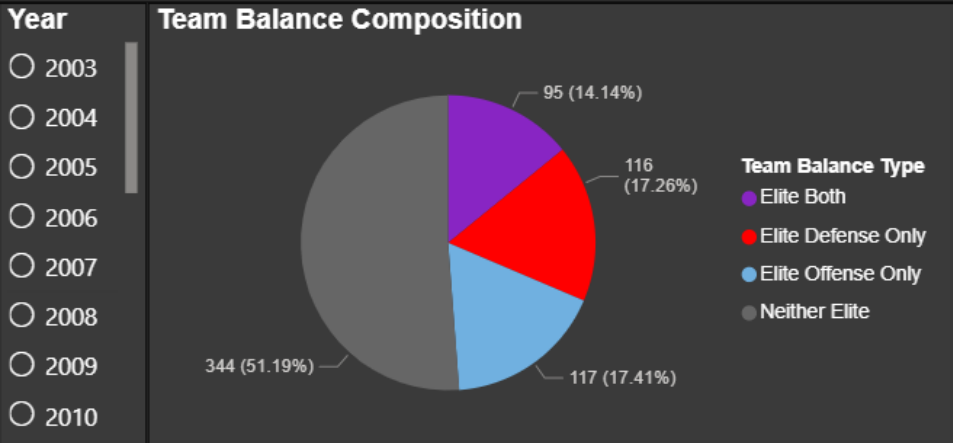
- **Defense Matters:** Teams that allow fewer points tend to win more games and make the playoffs consistently
- **Strong Defenses Defines Winners:** Most Super Bowl winners come from elite or strong defensive tiers, with very few having below average defenses and *none* having weak defenses
- **Poor Defense Rarely Succeeds:** Teams with weak defenses never reached postseason from 2003-2023, reinforcing that defense is essential for success

03

Offense vs. Defense

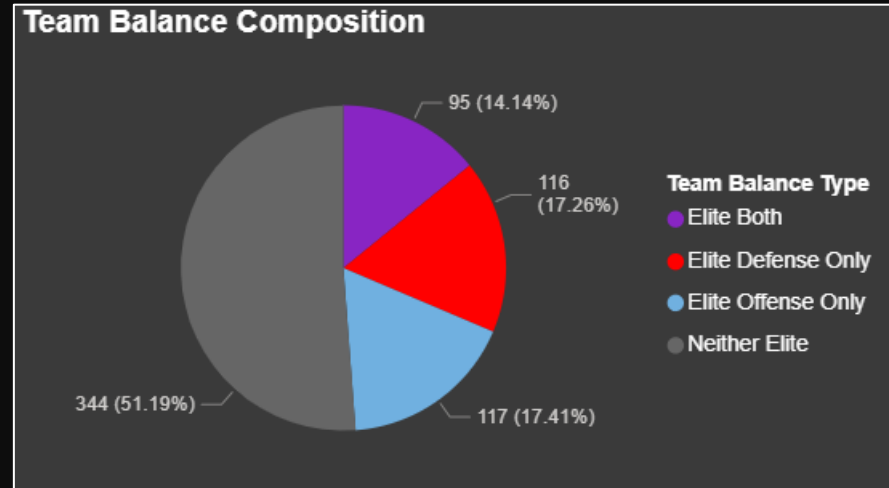
Comparing the two side-by-side

Offense vs Defense



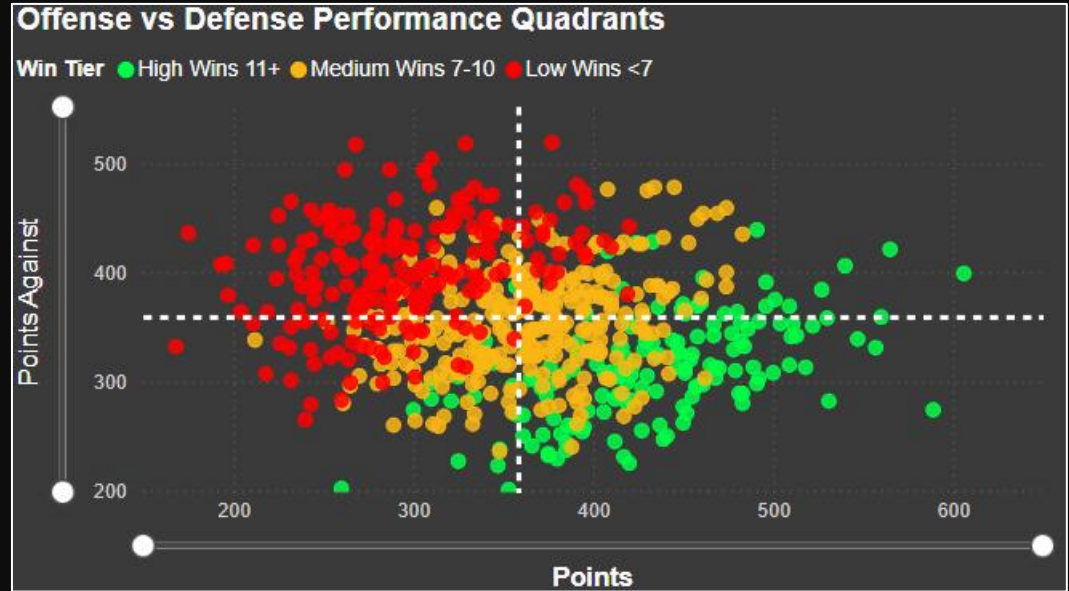
Team Balance Composition with Offense & Defense

- Highlight how teams allocate strengths and which unit they invest in more
- Suggests that **elite offense alone is not a stronger indicator of success** than elite defense
- Teams can succeed by being elite on either side, but **greatest success → balance**



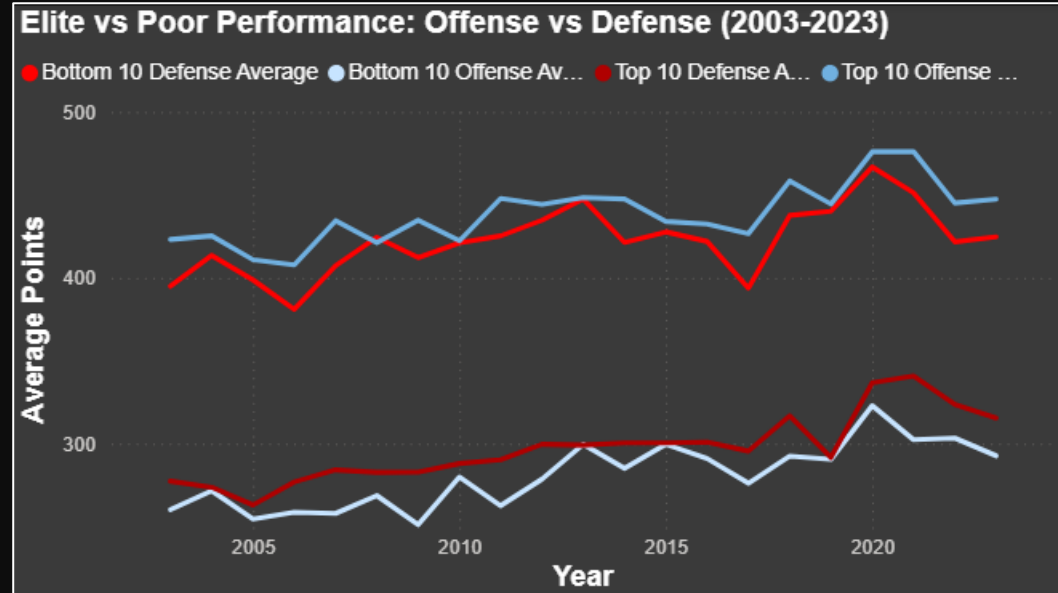
Offense vs Defense Performance Quadrants

- **Bottom Right** = high scoring, low points allowed
- **Top Right** = high scoring, high points allowed
- **Bottom Left** = low scoring, low points allowed
- **Top Left** = low scoring, high points allowed



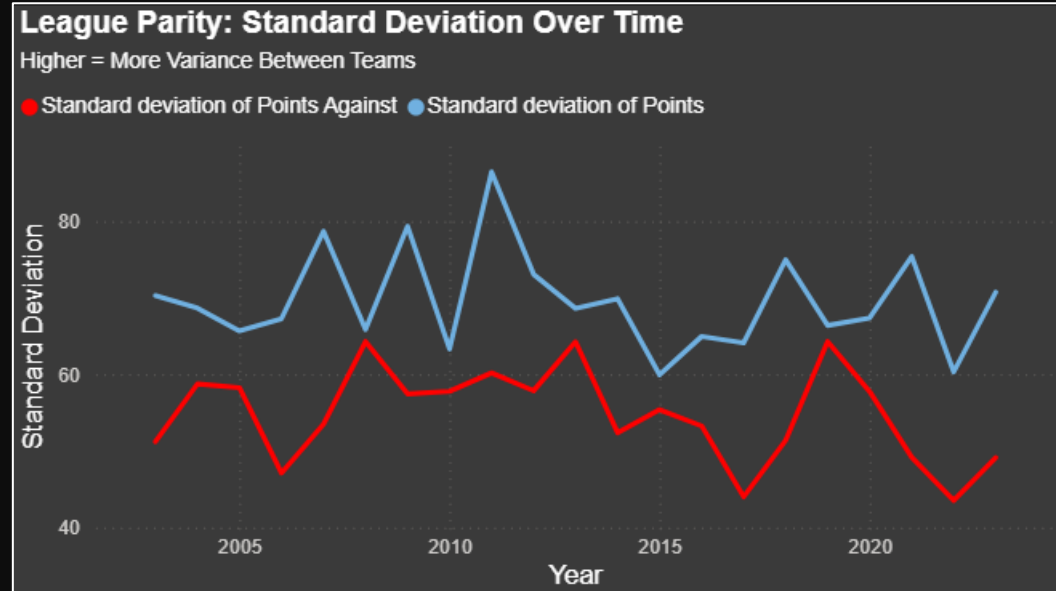
Elite vs Poor Performance: Offense vs Defense

- **Neither** offense nor defense **overwhelmingly dominates**
- Elite units on **both sides carry similar weight** in shaping team results



League Parity: Standard Deviation Over Time

- **Offenses vary more** than defenses across the league
- Defensive performance is more consistent
- Offense plays a larger role in **differentiating team success**



Conclusion

- **R² values** alone, **offense** is slightly more significant for **wins**
- **Neither offense nor defense** consistently dominates as the sole predictor of team success
- Offense may create slightly more differentiation in the modern NFL, but defense remains equally capable of driving success
- **Final Verdict:** it's offense AND defense

04

Super Bowl Winner Performance

Taking a deeper dive by looking at Super Bowl Winners statistics

Super Bowl Team Performance

Total Winners Analyzed

21

Average Offensive Ranking

7.76

Average Defensive Ranking

8.52

Year

- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010

Q&A



Ask a question about your data



Try one of these to get started

top scoring tiers by total points allowed

top defensive tiers by total points scored

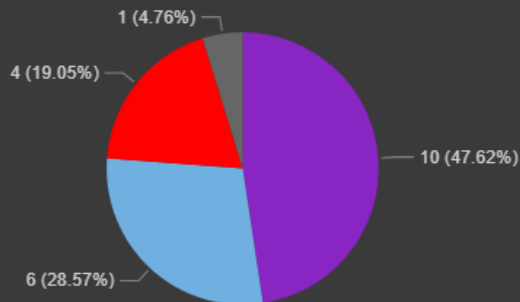
top team ranking team balance types by total points scored

Offense/Defense SB Rankings By Year

● SB Offense Rank ● SB Defense Rank



Super Bowl Winners Unit Composition

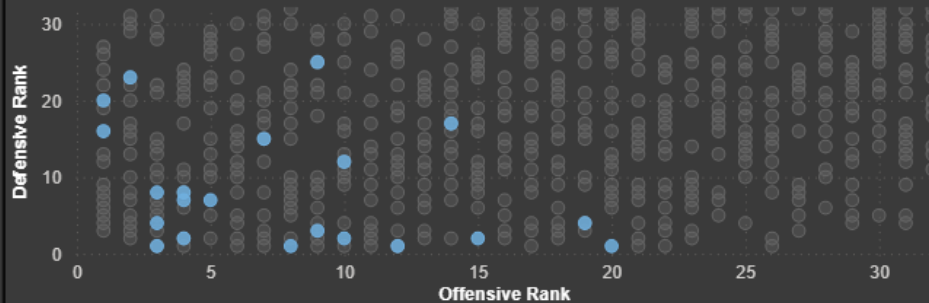


SB Winner Balance Type

- Elite Both
- Elite Offense
- Elite Defense
- Neither Elite

Super Bowl Unit Rankings

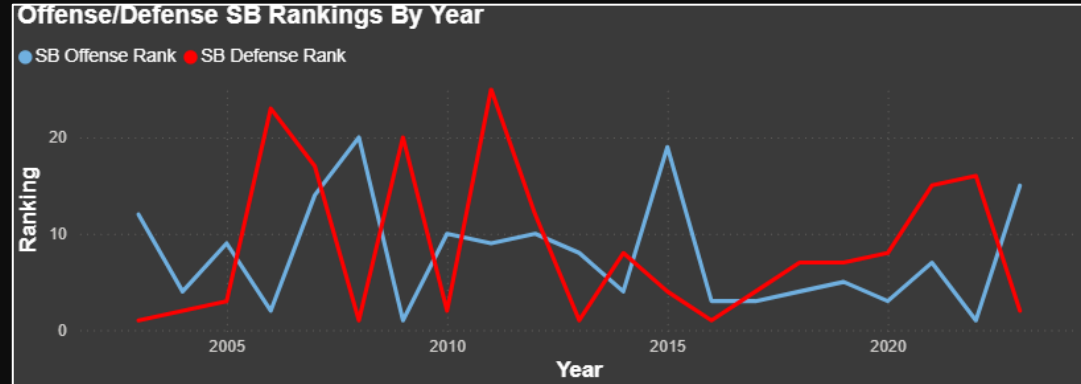
Super_Bowl_Winners ● 0 ● 1



Offense/Defense SB Rankings By Year

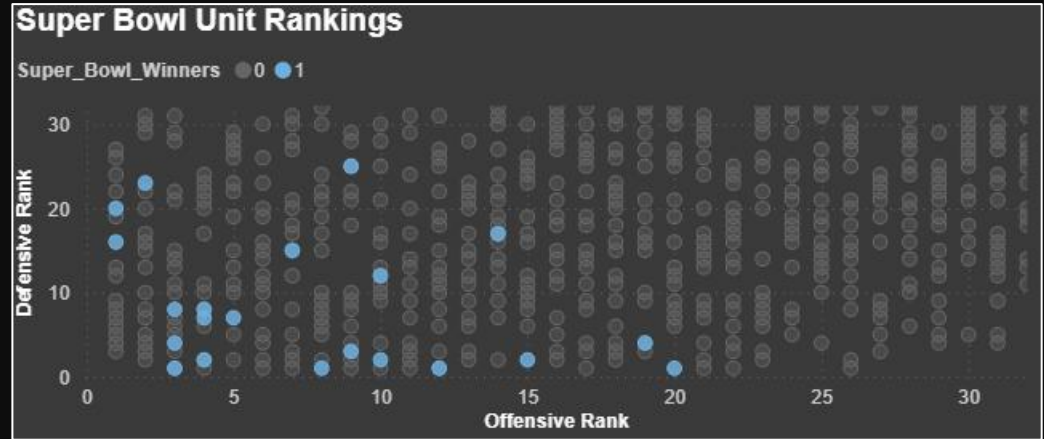
- **2016-2022** = consistent high offense rank
- If low offensive ranking, there was high defensive ranking, and vice versa →

BALANCE



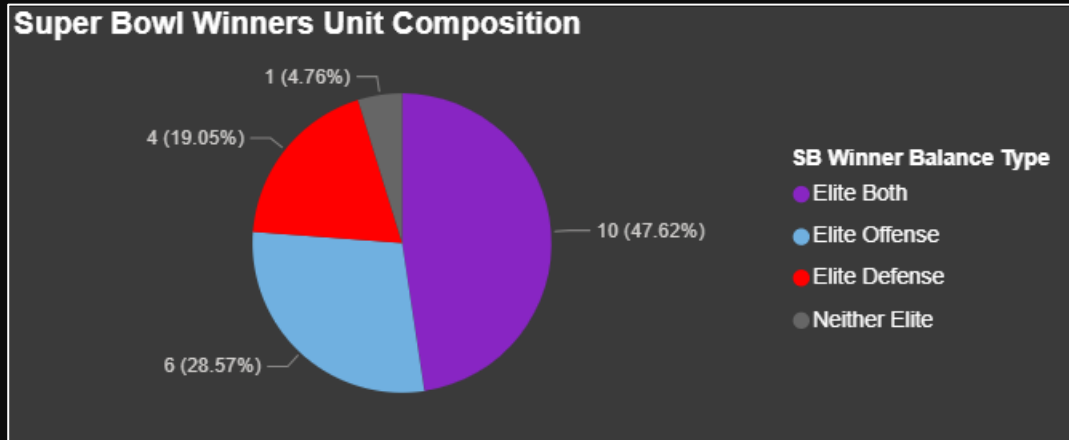
Super Bowl Unit Rankings

- From 2003-2023, many Super Bowl winners' unit rankings had **both strong offenses and defenses**
- If a team had a **low defensive rank**, it was countered with a **high offensive rank**, and **vice versa**



Super Bowl Winners Unit Compositions

- Similar to previous charts, but **focuses on Super Bowl winners**
- Only 2 more teams with only an elite offense – **vast majority had elite both**



Final Conclusion

Offensive Performance

Offense matters but is not the only factor that contributes to wins

Defensive Performance

Defense matters, and only teams with decent to elite defenses make it to postseason

Offense vs Defense

A balance of offense AND defense are crucial for success, rather than just one factor
You can occasionally offset a bad offense with a good defense and vice versa, but ultimately, a balance of both is best

Super Bowl Winners

Super Bowl teams show a balance of a good offense and good defense. If one unit performed poorly, the other performed highly, but ultimately a balance of both was best

Further Thoughts

- Many other factors were NOT measured in this dashboard that also contribute to team success, such as coaching, fan base (home game advantage), and more
- In the current NFL, **the loss of the quarterback**, who essentially leads the offense, is dire, indicating that offense (with this key player) has a great impact on team's success
 - **Joe Burrow** – Cincinnati Bengals → A previously struggling defense performed extremely well with the return of Joe Burrow against the Ravens
- It is clear that current teams seek a franchise quarterback and build around that, indicating the clear focus towards offense in recent years