***NFL Cap Hit Percentage Analysis***

**Position by Position Breakdown**

**Offense**

Quarterback: Anyone who knows football will tell you that the quarterback position is the single most important need for football teams. With a correlation coefficient of 0.243, this position has the highest correlation when it comes to cap hit percentage and winning regular season games. Interestingly, we see this position come in at 3rd in terms of playoff win influence with a coefficient of 0.148. To be fair, the two positions ahead of it are safety and strong safety. These can be rolled into one category in many cases. The same scenario is present when looking into Super Bowl wins. This can be explained by the emergence of young quarterbacks on rookie contracts having unprecedented success in the postseason. Even so, the investment teams make into this position is highly rewarded.

Runningback: We've seen the league become passing focused over the years, and the data clearly reflects that. Runningbacks rank 16th with a coefficient of 0.067 for regular season wins. It gets worse as we get into the playoffs, with a slide to the 17th spot and a score of 0.034. This position goes back up to number 16 for Super Bowls, but has a correlation of 0.001, which barely registers as positive. Very few backs receive large contracts these days, and this correlation is likely a large part of the reasoning behind that. Even with their contracts becoming smaller and harder to obtain, it seems they are still being overpaid in most cases.

Fullback: Fullbacks are a forgotten concept on most teams. They rank 20th out of 22 positions and have a hardly noticeable influence of 0.014 for regular season wins. Conversely, they crack the top ten coming in at number 8 when it comes to playoff wins with a coefficient of 0.072. They take a dip back to 13 when looking into Super Bowl wins with a score of 0.027. Although these are not eye-popping numbers, the few fullbacks in the league are well-placed investments for their teams.

Wide Receiver: With the importance of the run game on the decline, wide receivers have become exceptionally important for many teams. They come in 2nd place for their influence on regular season wins with a coefficient of 0.218. When it comes to playoff wins, however, this position moves down to the number 9 spot with a correlation of 0.072. When looking at Super Bowl victories the importance dwindles further, going to the 12th spot with a score of 0.038. Although the need to have a high-paid receiver seems to weaken in the postseason, you still must win regular season games to get there. Overall, investing in this position is a moderate necessity.

Tight End: With the evolution of the passing game, tight ends have seen an increase in targets and receptions over the past 2 decades. Referring to the regular season these pass catchers come in at number 6 and receive a score of 0.131. They trend upward in the postseason, with 5th place in playoff wins and 3rd in Super Bowl titles. Correlation coefficients of 0.117 and 0.099 are assigned to these, respectively. Putting money into a premium tight end is a phenomenal investment in terms of team success.

Left Tackle: A solid left tackle is considered a cornerstone for NFL offensive lines. It was a little surprising to see this position come in at 10th in terms of regular season wins with a coefficient of 0.103. Offensive line contracts aren’t typically the largest, with this position being the exception. Regarding playoff wins, left tackles move down to 16th place with a score of 0.039. A resurgence is seen in Super Bowl wins with a correlation of 0.047, placing this position at number 10. This shows a moderate return on investment at the offensive line spot, with it’s importance growing with the significance of the moment.

Right Tackle: On the opposite side of the line the right tackle comes in at number 12 with a coefficient of 0.098 during the regular season. As with its counterpart, having a high performing and well-paid player at this position becomes increasingly crucial during postseason play. With placements of 7th and 4th and scores of 0.075 and 0.094 in reference to playoff and Super Bowl wins, a good investment here certainly pays off. This makes the right tackle position a crucial investment.

Tackle: Most players with the tag of tackle tend to be backups and swing tackles. While valuable for depth, the cap hit percentages tend not to be too high. With placements of 17th, 20th, and 19th, having a player take up any significant amount of cap space without a true designated position along the offensive line isn’t the best move. The coefficients suggest this could even be a negative factor with correlations of 0.047, -0.046, and -0.010, respectively.

Guard: The guard position is somewhat like the tackle tag. It ranks last in regular season win percentage, 18thin playoff wins, and 15th in Super Bowl wins. As with the left and right tackle positions, the importance grows in the postseason. With correlation coefficients of -0.004, -0.013, and 0.008, it seems that paying players premium money at this position doesn’t translate to wins or losses.

Center: This one was strange, as it had an opposite trend from its other offensive line members. In the regular season, having a premium center shows to help teams win. A coefficient of 0.108 puts this position in 9th place. In the playoffs the position takes a dive, moving down to 15th with a score of 0.039. It gets worse when looking at Super Bowl wins, as the center moves down to 21st out of 22 places with a correlation of -0.048. This number is significant, and because of this teams should think twice before lending players at this position any notable portion of its salary cap.

**Defense**

Defensive End: The analysis is a little tricky here, as the true purpose of this position depends on defensive scheme. In a 3-4 defense the defensive end might be more of an interior disruptor. For a 4-3 defense this position will be more of a true edge rusher. This is important because it is the edge rushers that garner large portions of a salary cap for most teams. A premium edge rusher is considered by many to be essential for team success. That said, the defensive end comes in at number 4 with a coefficient of 0.190 for regular season wins. It moves down to 6th when looking into playoff wins and 11th for Super Bowl victories, with correlations of 0.097 and 0.046. Although its importance seems to decline into the postseason, this position shows to have a moderate to high return on investment.

Defensive Tackle: An opposite trend is found for our true interior defenders. During the regular season defensive tackle places 14 with a score of 0.090. Moving into the postseason these scores move to 0.147 and 0.071, awarding this position 4th and 5th, respectively. This displays that having a premium disruptor on the inside leads to success in the most important moments. This should be considered a high yielding investment.

Outside Linebacker: As with defensive end, this position can be looked at in different ways. Depending on the scheme they can either lean towards run stopping and pass coverage or rushing off the edge. Ranking 13th in terms of regular season wins with a coefficient of 0.095, outside linebacker should be considered a moderate need for teams. When looking at playoff and Super Bowl wins, however, it tends not to pay off. Coming in at 19 and 17 with scores of -0.017 and -0.001, paying premium money at this position doesn’t look to have much of a negative or positive influence on team success.

Inside Linebacker: Following the tendency of their outside counterparts, having premium inside linebackers looks to be more important in the regular season than the postseason. With placements of 7th, 11th, and 20th and correlation coefficients of 0.120, 0.055, and -0.024, this position has a moderately low impact on winning games overall.

Linebacker: As with the offensive line and the tackle tag, guys with the linebacker tag tend to be bench players and special teams contributors. Investing in this type of player seems to have a low to moderate impact on winning, with impact increasing in the postseason. With scores of 0.034, 0.050, and 0.067 this position is awarded 19th, 14th, and 8th place regarding winning in the regular season, playoffs and Super Bowls.

Cornerback: Along with quarterbacks and edge rushers, great corners are thought to be crucial for high levels of success. When looking at the data, however, teams tend to vastly overspend at the position. In the regular season, cornerbacks rank 11th with a coefficient of 0.099. In the playoffs they take a massive fall, dropping to 21st and scoring -0.052. As far as winning the championship is concerned, this position comes in dead last at 22nd with a correlation of -0.063. Having good corners is certainly imperative to team success, but as you can see, they tend to be greatly overpaid for their amount of influence.

Free Safety: A good center fielder on the back end of your defense can certainly help the team win. Free safeties rank 8th, 12th, and 1st when comparing regular season, playoff, and Super Bowl success. The coefficient scores of 0.110, 0.052, and 0.105 show a marvelous return for putting money into premium players at this position.

Strong Safety: Paying players at the strong safety position is arguably more important than their free safety secondary partners. When comparing regular season wins, these players rank 3rd with a correlation coefficient of 0.202. This moves up to 2nd regarding playoff wins and 7th for Super Bowl wins with scores of 0.149 and 0.067. Paying a great player at this position should be considered a top priority for teams.

Safety: Unlike the unspecialized tackle and linebacker positions, the safety position has turned into a premium hybrid of both free and strong safeties. These players are likely starters and in many cases are considered premium members of the secondary for their versatility. The trend continues with the back end of the secondary with this position ranking 5th in regular season wins, 1st in playoff wins, and 6th in championship victories. With correlation coefficients of 0.131, 0.153, and 0.69, paying good talent at the safety position leads to great results. These players are a worthy investment.

**Special Teams**

Kicker: Across all 3 phases, kickers have a moderate return for the investments made to them. In the regular season category, they rank 15th with a score of 0.081. For the postseason, this position earned 10th and 14th place with coefficients of 0.069 and 0.014. This is one of those positions that you don’t really care about until you need a field goal to win or send the game into overtime. Paying a good kicker can be the difference between going home or winning it all.

Punter: As with kickers it looks like teams don’t overspend at this position. Punters came in at 18th, 13th and 9th when comparing the regular season, playoffs, and Super Bowls. It shows a trend that having a premium player at this position becomes increasingly more important the further you get into the season.

Long Snapper: When looking at how teams pay long snappers and how that correlates to success, it’s more negative than positive. In the regular season they rank 21st with a coefficient of 0.003. In the playoffs they slide to last place with a score of -0.056 and when looking at Super Bowls they move up slightly to 17th, but still have a negative influence with a correlation of -0.006. This is certainly the most overlooked position on this list, and the data shows that it’s for good reason.

**Conclusion**

As expected, the quarterback is shown to be the position to have the highest return on investment. Maybe the most unexpected result was that of the value of all safety positions. Overall, they appear to be vital investments for teams looking to win it all. The runner up to this surprising find is that of the negative return of paying cornerbacks. While they show moderate value in the regular season, the negative correlation between cap hit percentage and winning in the postseason cannot be overlooked. When slicing up funds along the offensive line, the left and right tackle positions are proven to yield the best results. The value of premium tight ends has skyrocketed and should be a priority, as this has been shown to have a high return on invested capital.