Summary of 2023 Denver Broncos Dashboards

These two dashboards are aimed at providing both an executive level analytical summer of the 2023 season, as well as a more player-specific board used for internal coaching decisions and KPIs. This was broken down into two different boards simply because coaching staff will face audits from both the public/league on a commission level, which can also be used to address their fanbase, and from players as well as internal staff that need data geared more towards their specific position groups/ on a personal level. On the executive/ external dashboard, note that there was one story that was conveyed: inconsistency. That main idea was broken down into four key graphics: Offensive capabilities in terms of yards per game, defensive yards allowed per game, the turnover margins broken down into home vs away, and then how well the offensive line performed. Each of these areas is a key metric in how well a team either adapts or doesn’t adapt throughout a season.

On the internal dashboard, there was a primary emphasis on breaking graphics down into position-based metrics that carried back to the external dashboard. These ideas revolved around: who on the team was turning over the ball too much, who is getting trusted with the ball in key scoring situations, how are we kicking as a team (because special teams matters), and then a data table based on the player themselves and what statistics are relevant to their position. This was done primarily because coaches address both players in position group meetings as an entire subgroup, but then also outside of the meetings, players each have their own individual “score card”.

The story one should be getting out of this data should re-emphasize that 2023 for the Denver Broncos was a bag of mixed results. Statistically some numbers might stand out as individual players found some success, but most of the graphics don’t convey a solid sense of offensive or defensive domination one way or another. There were individual games/weeks where the team saw complete separation in terms of takeaways, or holding a team to minimal sacks, but then there’d be other weeks where both sides of the field leave much to be desired.

The data cleaning process was exhaustive and time-consuming in terms of how non-uniform it was. As one can imagine, not all players will have the same statistics, which make it harder to clean than basketball, baseball, hockey, tennis etc. The first part of cleaning the data was to create subcategories within known hierarchies. Players belonged to a set position group, that belonged to an NFL team, which then belonged to a division that was part of a conference etc.. Then once a hierarchy was created, the proper data had to be formatted to fit the individual player. This meant understanding the specificity of each measure value, and knowing whether it could be used in further helping to understand each player on a case-by-case basis. Measures like safeties and fumble yards or defensive touchdowns were excluded because of their rarity on a seasonal basis in favor of more normalized statistics such as tackles, sacks, turnovers etc.

Some measures had to be aggregated such as Turnovers Forced and Turnovers Lost. These came from the summation of interceptions and forced/lost fumbles. The same approach was taken to Offensive Yards and calculating opposing team’s yardage in a game. One does have to keep in mind through that offensive yards either is the sum of rushing and receiving yards or rushing and passing yards (many will make the mistake of including all three when receiving and passing should amount to each other in the same game). When calculating opposing team’s yards, since there was no data for this specifically, a created calculation had to be made to filter where the opponent was the Denver Broncos themselves and summation of any object’s passing and rushing yards would equal what a team put up against the Broncos.

After all of that it was a matter of understanding the context around what games drove which statistics to occur in a season, what notable events impacted said measurements, and finicking with how to include parameters within the dashboard to show different player’s statistics (since each position group has a different number of measures that are only applicable to them). Using a simple data table and filter here wouldn’t be enough so there was an idea to tie the player’s image to their position group’s data table based on the known hierarchy that existed between the player and their position group.