The Economics of the NFL: A Strategic Analysis of the NFL Economics and Contracts to Create Future Prosperity

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Introduction

The NFL has taken off in recent years. New television deals and the legalization of sports betting, has caused teams valuations, and in turn, player pay to spike. This analysis will use an economic approach to look into aspects of the NFL's history, structure, and previous contracts to shed light on potential embedded systematic issues that are present in the NFL. Painting the picture of a diverse, equal, and equitable league the history of the league and contracts could prove otherwise. In addition, the NFL player market contains widely available performance statistics and pay transparency which should in theory improve player pay as players would be in a better negotiating position compared to comparable players. Studies have suggested that pay transparency has unintended consequences and largely benefits the highest paid players and owners. Deep rooted issues caused by the monopsony of the NFL and a number of conflicts of interest, also holds player pay back from being competitive that might have otherwise existed if there was a free market for players. This paper will discuss the history of the NFL, the economics of the NFL, discuss the non-competitive player market for pay and provide an analysis of actual NFL contracts proving that payer pay needs reform. While the NFL has little incentive to change, the conclusion will provide policy proposals for changes to the NFL and current player pay that could improve league competitiveness which should improve overall revenue to the NFL.

Chapter 1: History of the NFL

Football was created in the late 1890s as a rip off from the original game of Rugby. Starting as the American Professional Football Association or the APFA in 1920, the league was named the NFL in 1922. While college football was extremely popular, the rise of the NFL was delayed. In 1926 the AFL, American Football League, was founded. This league lasted just one year and the idea of professional football seemed distant. This all began to change when in 1933 the NFL created a championship game(Oriard et al 2024).

In the 1940s the NFL started to rival college football for viewership. The game was progressing and the new higher paced and scoring games began to bring more attention. Continuing to grow into the 1950s the sport was starting to produce stars. Players like Otto Graham and Johnny Unitas were becoming celebrities as they began to televise games. With this uptick in popularity the American Football league was created once again in an attempt to rival the NFL, and it did just that. The 1960s were a huge decade in terms of growth for professional football. The AFL signed a deal with ABC for their games to be broadcasted on television and offered a number of new features that the NFL did not. This forced the NFL to react and continue to expand as well which included adding more teams.(Oriard et al 2024)

The battle between the AFL and NFL was getting so competitive with each other that it was beginning to hold back the rise of the sport. Due to this, the leagues decided in 1966 that in 1970 the leagues would merge. This league featured two conferences, the American Football Conference and National Football Conference otherwise known and the AFC and NFC. Along with this, they created the "World Championship of Professional Football" which was renamed as the Super Bowl after the merge. In 1967, the Green Bay Packers defeated the Kansas City Chiefs in Super Bowl I. Since the merge, the NFL has not looked back. The continued growth in the 80s and 90s solidified itself as America's largest spectator sport. Moving into the 2000s the NFL has continued to grow the sport by having regular season games being held outside of North America such as Mexico, London, and Germany(Oriard et al 2024).

With the growing popularity of the NFL, there has also been a growing spotlight put on the safety of the sport. With the sport causing death in the 1920s, the safety measures of what many would consider a barbaric game have come a long way. Technology has advanced the helmets used by players significantly and there have been many penalties added to the game in an attempt to stop unnecessarily heavy contact to the head and even lower portions of the body. Since 2002, the NFL has added dozens of rule changes to improve the safety of the game and cut down on injuries. The most recent courses of action have focused on the kickoff and the use of helmets to initiate contact. This has caused an uptick in penalties being called for contact to the neck or head area, and fines being distributed towards players who are using their helmet to "butt", "ram," or "spear" to initiate contact with another player(NFL 2022). In spite of the changes to make the game more safe, it is still a dangerous sport that can cause permanent disability in players. One in four players will suffer an in-game injury and over a recent ten year period, injuries were significant enough that 15% of players missed games. (Gitnux Marketdata Report 2024)

Racial Discrimination within the NFL

Football, like other major sports, started as a white sport. Primarily popularized by college football teams which were made of white players and students, the NFL followed this trend. It claimed to not be a segregated league, but there were no black players from 1933 to 1946(Smith 1988). It was not until after World War II were black players started to come into the NFL. Despite these players having success, they often were not supported by their teammates and fans of the league. Joe Lillard, was a black football player who was a key contributor to his teams success, but was not given the respect of other white players and given the opportunity to come back and play for the Chicago Bears after his success. Due to segregation in the US, having a black player on their team would cause the owners a number of problems from team travel, public, and internal disapproval. NFL teams even had a chance to sign Jackie Robinson years before he was offered a contract in the MLB to break the color barrier. Many looked at Washington Redskins Owner George Marshall as to why the NFL remained segregated. Marshall was a very influential person in the NFL world.. When Marshall relocated the Redskins from Boston, to segregated Washington D.C, he publicly said that he would not let minority players play for his team, it spoke volumes. As a result, many black players took their efforts into creating their own black teams and leagues.

After World War II a lot of steps were taken in integrating the NFL. From 1960 to 1967 the percentage of black players increased from 12 to 67 percent of the league(Lomax, 1999). While this number provides a great step in the right direction it proved to be misleading in describing the racial inequality within the NFL. One of the biggest problems during this time was that the NFL believed that just by having a lot of black players in the league, there was no racism. This provided a reason for many within the league to continue to act in ways that were harmful towards black players. While their numbers were increasing, black players were silenced within the NFL. It was not until later that those in the league began to let their voice be heard. Players started to speak up about issues like the limitation of black players on teams and many even demanded the resignation of commissioner Pete Rozelle because of his lack of awareness in regards to racism within the league. When Black players became welcomed into the league, they started to only place them in certain positions like running back, wide receiver, and cornerback.

Another problem is that while there is an increase in black players, there is still a large lack of black representation among coaching staff and front offices.

The year 2016 was the start of a movement that shocked the NFL world. The take a knee movement, started by Colin Kaepernick has had lasting effects since when several NFL players started to kneel during the national anthem. Seen all over the world, many people began to follow in their footsteps kneeling in protest of racial inequality and police brutality. As many followed and supported this movement, there was just as much backlash. Many viewed it as taking away from the fan's enjoyment of the game and even Donald Trump the then-president released a statement in 2017 saying that the NFL players who kneeled should be fired(Hill 2023). Taking a close look at the players who decided to kneel, Ethan Poskanzer did a study regarding the careers of those who kneeled. In this study, he found that most of those who kneeled either got less pay over the next five years or left their organization. The article uses the NFL as an example showing that if you are not aligning with even bad or discriminatory values of the organization you will see that in your pay.

Moving on from just the player standpoint, the NFL has never had a black owner in its entire history. While the league is primarily black, in 2022 there was only one black head coach. The league was put on blast for this when Brain Flores put together a lawsuit that he was fired from coaching the dolphins because of his race(Leonhardt 2023). He also publicly released text messages with Patriots coach Bill Bellicheck exposing the Giants organization for interviewing him after they had seemingly already decided who their next head coach would be. This arose because the NFL requires each team to interview at least one non white candidate for each position. While this policy was put in place to help eliminate discrimination, it was effectively ignored.

Looking at the NFL right now, the fight for equality is not close to being over but seems to be moving in the right direction. The NFL is currently in place to have 9 minority head coaches for the 2024 season. In addition, the 2023 draft highlighted three black quarterbacks in the first four picks. Athletes such as Michael Vick, Cam Newton, and Robert Griffin III performed on the field and continued to spread awareness about their careers and they are seeing the effects. In 2022, we see a league record 29% of games started by black quarterbacks(Stuart 2023). While improvements have been made, further improvement is needed to create a more equitable league.

The Changing Game

When considering contracts for players, it is important to note the state of football from a scheme and strategy perspective and the development that it has gone through. In recent history, many major sports have gone through major changes with the rise of analytics. Baseball has shifted away from small ball (just getting players on base) towards hitting the ball in the air more to promote more home runs. Basketball evolved into a positionless game where everyone is expected to be able to shoot threes and handle the ball. Football has followed the trend and moved on from hard nose, ground and pound football where the offense relies on their running backs to break down a defense to a complex air attack putting the ball in the quarterback's hands.

Looking at the history of passing in the league, it took until 1981 for the combined average of NFL teams to be above 200 passing yards per game. More recently this number broke 220 for the first time in 2010, and peaked at 244 in 2015(Pro-Football Reference). What we can also see from the league averages is yards per catch is decreasing from season to season. This aligns with the newer ideology that teams need to be passing the ball more. Not only this, but that they need to be passing to their running backs more creating shorter, more efficient passes than would be used in a situation where an older school team would be running the ball. The increase in passing puts even more emphasis on having an elite quarterback. In addition to this, it has more implications on running back contracts making it necessary for backs to be able to catch the ball out of the backfield and block rushers on passing plays. An overall want for more versatile players has had an impact on the game.

Chapter 2: Economics of the NFL

Valuation of Teams

While everyone sees the final product of an NFL team putting in countless hours of practicing, designing plays, and dissecting defenses. What is often overlooked is the business that the NFL is. Fans watch their teams and question the decisions that are made on and off the field, but it is impossible to know the true motives of an NFL organization. NFL teams are evaluated to be worth between $4.0 and $9.2 billion dollars with the Dallas Cowboys being the most valuable organization and the bottom being the Cincinnati Bengals(Sullivan 2023). While the final product out on the field matters, the owners are investing that money to make a profit. Teams are set to make profit through ticket sales, television deals, in stadium concession, jersey sales while keeping expenses as low as possible such that profits are maximized. The largest cost that a team has is player expense. Players in general have short careers in the NFL and want to maximize pay during that period(NFLPA). While players and the owners of those teams want to win, the incentive of money and individual performance can lead to a conflict of interest(Schweyer 2021).

Based on a number of factors, football organizations have much different valuations. Big market teams like the Dallas Cowboys($9.2 billion), New York Giants($7.04 billion), and Los Angeles Rams($6.94 billion) hold the top spots for evaluated teams, despite the Rams being the only team to have won a super bowl within the last 10 years. The list continues as the New England Patriots($6.7 billion), San Francisco 49ers($6.15 billion), and the New York Jets($6.11 billion)(Sullivan 2023). What makes this interesting is that the New England Patriots and San Francisco 49ers are known as two of the historically great and most franchises in the NFL, yet a team like the New York Jets are valued right next to them while not being regarded close to the same tier of organization. Furthermore, a more interesting case includes the Los Angeles Chargers being valued as the 18th most expensive franchise at $4.63 billion. This seems to be an outlier in regards to location and market of the franchise and the valuation. There seem to be a number of issues when it comes to the Chargers franchise and lack of fans and support. This combined with the fact that they just moved from San Diego can prove that there are a number of factors that go into the value of a franchise. Finally, looking at the bottom tier teams, it does not seem to be a shock with the markets that they are in. The Buffalo Bills($4.13 billion), Detroit Lions($4.1 billion), Jacksonville Jaguars($4.04 billion), and Cincinnati Bengals($4 billion), are the four lowest valued franchises(Sullivan 2023). These are less shocking low valuations due to their location as small market franchises. Buffalo is known as the forgotten team of New York despite being the only team with a stadium actually located in New York. While Detroit, Jacksonville, and Cincinnati are all comparatively near impossible to try to compare market wise to New York, Los Angeles, or Chicago.

While winning can promote the selling of more tickets, it is not what drives the valuation of NFL teams. NFL teams share 63% of the leagues revenue(Appraisal Economics 2017). This money is generated by "television deals, any national sponsorship revenue, a third of all ticket money, and any revenue from non-NFL events that are held in NFL stadiums." Where teams have the ability to separate themselves is in their branding, and stadium revenues. The Dallas Cowboys are able to charge a higher rate for their tickets due to their luxurious stadium and extensive amounts of upgraded seating sections. This increases the amount of revenue they are able to bring in from concessions, merchandise, and parking. Furthermore, commonly known as "America's Team" the branding opportunities for the Cowboys are extensive.

Profits and Revenue Sources

An organization's ability to win is not the same as one's ability to make money. There is a large discrepancy between an organization's want to maximize performance and maximize wins. While teams strive to keep their fans entertained with the best team on the field every year, it is still a business that must make a profit. NFL teams make money through a few different streams which are dominated by television deals. In addition to this, their own attendance and brand also bring in a considerable amount of revenue. Given this, it is important that these things are closely looked into to see how teams try to maximize these aspects before even focusing on the amount that they are spending on players.

When looking closely at the attendance of games, there are a number of potential factors that play a role in who is going to NFL games. Aspects such as ticket prices, record of the home team, divisional opponent, lack of rain, prime time games, and expected closeness all have been found to have positive effects on the attendance of a game(Quinn 2012). For a team to maximize the profits for their attendance, they would want to address that from these roots. This results in teams wanting to win, and playing in prime time games that attract more attention. In addition to this, they would also want to have games that are deemed to be good, or close games. This connects to the overall scheduling of the NFL and why the league would desire to promote a competitive balance.

While many would assume that owners would look to maximize profits from the fans attending the game there are a number of factors that could play into a team wanting the stadium to sell out. An empty stadium is bad for television ratings(Quinn 2012). Full stadiums generate energy that not only could help give the players an advantage, but promote buzz for the team. This leads to games that cause even more fans to want to go to games which have a number of more positive effects. Within recent years, there has been a lot of speculation and even action taken on the movement of teams. The once St. Louis Rams, San Diego Chargers and the Oakland Raiders are now the Los Angeles Rams, Los Angeles Charger, and Los Vegas Raiders. With the Rams moving in 2016, the Chargers moving in 2017, and the Raiders moving in 2020, the importance of location in regards to profits of these teams is evident to the owners. Despite teams like the Kansas City Chiefs having a superstar and future hall of fame quarterback in Patrick Mahomes, and the Pittsburgh Steelers being up with the San Francisco 49ers and New England Patriots and one of the most winning franchises, they don't have the ability to make money like the other teams because of their location and marketability(Appraisal Economics 2017). There are additional factors of stadiums that are important to the economics of NFL teams. The Berkley Economic Review(2019) studied the importance of stadiums to NFL franchises. The sheer size of stadiums first is able to increase the amount of money teams are able to bring in. In addition it is important that they are able to maximize the price of their seats. They can do this by adding premium seats that enhance the over viewing experience of games at a higher price. Having better views, quality of concessions, and providing extra entertainment like a halftime show are all ways that stadiums use to increase the revenue and valuation of a franchise.

The Berkley Economic Review(2019) furthers their research on the price of stadiums and their greater impacts. First, it is important to note that owners often get tax-payer support when building new stadiums. Teams can bring a lot of value to the rest of the community, by supporting local businesses and bringing more buzz to the city. Due to this, those influenced by the community are willing to support in funding it. Public financing takes out a large cost for the owners. This matter was further studied, and it was found that the stadium does not actually do as promised(Wolla 2017). It is found that the benefit of the community does not warrant the funding that goes into the stadium. These stadiums are very large projects, what is often forgotten is the opportunity cost for the community. It is proposed that the funds could do a much better job being put into schools or infrastructure. Owners take advantage of the tax-payers dollars to reduce their own risk on the franchise, and reek the benefits.

While a portion of the revenue comes from attendance of games itself, a large majority of this comes from television deals. The start of the 2023 season marked the beginning of a new slate of television contracts that were signed by the NFL. Getting revenue from six different broadcasting stations the NFL will receive an average annual revenue of $12.39 billion. ESPN and ABC lead the charge with a $2.7 billion deal just for Monday Night Football. Approximating about $378 million for each team(Gough 2023).

One aspect that stands out is the competitive balance of the NFL. Unlike many other sports, the scheduling in the NFL is very reliant on where you were in the standings from the year before. With first place teams playing the other first place teams, and similarly fourth place teams playing other fourth place teams, the goal of the schedules is to make teams play the most competitive games. Scheduling is also used to create or continue rivalries that adds to fan interest. While this creates a large difference in strength of schedule for teams, it creates a competitive balance within the league. This, in addition to the salary cap putting all teams on an even playing field, creates an NFL that is bound to make more money than if every week had great teams blowing out the bottom teams in the league.

While the competitive balance of games helps increase ratings within the NFL and increases uncertainty(Quinn 2012) the argument is brought up that the NFL actually has too much uncertainty, leading to a difference in the treatment of players due to an unknown outcome. There is much less incentive to go out and acquire top talent at a high price because at the end of the day, nobody can predict exactly what is going to happen. We see this more in football much more than in other sports where both top players and top teams fall off quickly due to the unpredictability of the sport.

There are other potential revenue sources from aspects of football that could increase the value that an owner gets from an NFL team. While a number of NFL owners likely see their team as a trophy the lack of transparency over owner financial interests makes it hard to prove that the owners benefit in other ways(Green Bay Packers Annual Report 2022-2023). For example, Rob Walton bought the Denver Broncos in 2022 whose family owns over half of Walmart, Baltimore Ravens owner Stephen Biscotti founded Aerotek a recruiting and staffing agency, and Stephen Ross the owner of the Miami Dolphins is the Chairman of the Related Companies, a large real estate development firm. These are just a few of the known examples of owners who have multiple incentives while owning NFL teams. The only team that has any transparency over ownership is the Green Bay Packers. The Green Bay Packers formed a non-profit public entity in 1923 and is the only public team in the NFL. Over 60% of the Packers revenue over the past two years has been from national sources; shared NFL revenues(Green Bay Packers Annual Report 2022-2023). The Green Bay Packers however also own a mixed-use real estate project called Titletown that is near Lambeau Field. Titletown provides fans and travelers a place to stay, eat, and participate in sporting events. With townhouses, office buildings and 152 apartments, Titletown's existence and profits benefit from the Green Bay Packer Lambeau Field which was paid for in part by a 0.5% sales tax(Green Bay Packers Annual Report 2022-2023). For NFL organizations, the revenue opportunities rarely end with football.

Sports Betting and Fantasy Football

While fandom often leads to disappointment and disinterest in the sport (only one team wins the super bowl, everyone else loses), the rise of sports betting and fantasy football can be seen to have a large impact on the attention fans pay to their sport. Sports betting and fantasy sports used to be looked down upon by owners and players, is being re-evaluated due to the effects that it can have on their sport. Just from the bets made in Nevada, sports betting had been on a steady rise from 2009 to 2017. Increasing from $2.57 billion dollars gambled to 4.87 billion dollars in 2017, there has been a significant increase (SportsBusiness Journal analysis of UNLV Center for Gaming Research). In 2018, the Supreme Court ended the Professional and Amateur Sports Protection Act which allowed each state to have their own regulations on sports betting. Since then, 35 states have legalized sports betting and 2022 was a record year. In 2022, there was a total of $93.2 billion placed on sports bets. In addition to this, the nationwide revenue was $7.5 billion which was a 61.1% increase from the $4.34 billion in revenue from 2021. 2023 is also on pace to break the total bets and revenue from sports betting in 2022(American Gaming Association).

This raises the question on what has betting done for fans and attracting them to sports? One of the most questioned aspects of the NFL is Thursday night football. Giving players less rest leading up to the week often leads to poor play and increased chance of injuries. The NFL saw a significant decline from an average of 12.44 million viewers per Thursday night game in 2016 to 10.94 in 2017. Despite no changes to the layout of the games, we see this number shoot up to 14.9 million in 2018 and even reach an average of 17.1 million viewers on these games in 2021. Carson et al(2020) found that the legalization of gambling assisted in people beginning to watch sports that they would not usually watch. They also showed that the people most affected were those with economic motivation, rather than those who were already large sports fans as they were most likely already watching the sport that they would be betting on. Furthermore, it is also mentioned that prior to the legalization of gambling there were a large number of illegal online sports books or underage bettors that could not be included in any data sets because of people's lack of willingness to share their use. While the betting industry continues to grow, owners of NFL cash in just from the valuations of their organizations. With 23 of the 32 organizations increasing their valuation by 20% or more including many not far behind, the legalization and rise of betting has proved to be impactful. Mark Cuban, owner of the Dallas Mavericks, mentioned everyone owning a major four sports team saw their valuation double at least(Carson et al 2020).

As aspects of gambling are still developing Fantasy sports have been around for years. Fantasy football, which is considered the largest fantasy sport, allows fans to draft players onto their team and gain points through the statistics that they put up that week. Fantasy managers often spend hours weekly making trades and adding free agent players on their team to compete against their friends. In addition to this, leagues often have buy-ins where the winner of the league will be rewarded with the money. Motivated economically, competitively, and through the pride of being right, fantasy football increases the amount that fans have invested in the sport. Fantasy football participants are more likely to attend at least one game a year and on average go to .22 to .57 more football games a season than non fantasy football fans(Nesbit, King 2009).

The Salary Cap

While other sports are prone to super teams and power hungry players demanding trades and higher contracts, the NFL is much less susceptible to this because of the salary cap that is in place. While other leagues have a luxury tax, penalizing teams that spend more than a certain amount to players to incentivise spending less, the NFL has a hard cap which teams are not allowed to exceed. This has a number of implications for the sport and the economics involved within the league. Economically, the salary cap lessens the pay of players and helps owners make a profit. In regards to football itself, the salary cap promotes more competitive balance between teams. Despite New York being in a big market, and usually being able to spend more than a team from Seattle or Baltimore, it puts both of them on an even playing field.

The salary cap itself is a number set based on a percentage of the revenue of the NFL, and due to that has been on the rise every year beside the year affected by COVID-19. The salary cap is currently set at roughly 48% of the league's annual revenue(Collective Bargaining Agreement 2020). In 2023, the salary cap was $224.8 million which was a 7.97% increase from the $208.2 million cap the year prior in 2022. This total is the maximum that a single team can give their players for their salary that year. Another aspect of NFL contracts that is different to other sports, is that yearly salaries are not guaranteed. If a player signs a deal that is $40 million for 4 years($10 million / year) the team can cut them after two years and not give them the remaining $20 million dollars on their salary. One way that teams and players have been changing this, is offering players very large signing bonuses, because this money is not attached to their yearly salary and is guaranteed money. This helps both sides of the deal because an NFL team does not take as large of a cap hit, and the player is getting money right away rather than hoping the team does not find a reason to cut them before they make their whole contract.

The salary cap is inherently important to the economics of the NFL. Teams must strategically allocate their funds to create a roster which they think suits them best. In addition to this, they have to have both a long term and short term view on their franchise(NFLPA 2024) .The economic impacts of the salary cap are seen when you consider the players and how their pay would get affected by a team that is trying to get the most out of every dollar they have in the salary cap. Teams are forced to try to maximize their money to get the best product out on the field. This can have a major impact on salaries of potential positions that are deemed more or less valuable than others because of these constraints. An underperforming player that is earning a very high salary can put a franchise back multiple years. Due to this, there is a large hesitancy to pay players large contracts, despite the production they have put up on the field prior.

Chapter 3: The Non-Competitive Player Market of the NFL

Summary of Player Pay

In the NFL, players sign contracts with the organization they play for and agree on a number of terms. The most debated aspect being the players salary. In football, there are a wide range of athletes that have differing roles, skill levels, and overall impact on the game. Due to this there are large discrepancies between the pay from player to player. With widely available statistics, there are clear measures of how a player is performing on the field. Once this contract is agreed upon, each player is rewarded with a weekly or bi-weekly check (NFL-NFLPA Collective Bargaining Agreement 2020) and in 36 weeks from the first game of the season will receive their yearly salary.

The basic form of contract that the players sign is largely consistent with collective bargaining by the NFL Players Association(Collective Bargaining Agreement 2020). For players deemed more important or for those who are in more demand, the terms of the contracts are negotiated to much higher salary levels. In many instances, the nature of these contracts are meant to give large incentives for players to perform. Sports teams have accepted the economic principles of performance incentives based on research conducted by Edward P. Laezer and Sherwin Ross as described in their paper called Rank-Order Tournaments as Optimum Labor Contracts (Lazear, Rosen 1981) as well as others including Harvard Business Review article Teamwork Works Best When Top Performers are Rewarded(Kirkman et al 2016). The Rank-Order Theory paper demonstrated "that competitive lotteries are often efficient and sometimes superior to more familiar compensation schemes, For example, the large salaries of executives may provide incentives for all individuals in the firm who, with hard labor, may win one of the coveted top positions. The Teamwork Works Best when Top Performers are Rewarded article concluded that while team based incentives should theoretically result in better outcomes, companies tried to use them, but they didn't work. They concluded that awards like employee of the month, player of the week, or larger honors like most valuable player are proven to increase performance.

Compared to other professions, teams have easily accessible statistics to measure a players performance and also compare to other players. Yards, touchdowns, wins are all examples of ways that NFL coaches are able to examine the value that the player had. In theory performance metrics used to reward players should be easily determined and knowing this information, it should create an extremely competitive environment. NFL contracts range from $795,000-$55,000,000 in yearly salary. Another large impact on players' pay is the salary cap. The NFL defines salary as "compensation in money, property, investments, loans or anything else of value to which an NFL player (including Rookie and Veteran players and players whose contracts have been terminated) or his Player Affiliate is entitled in accordance with a Player Contract, but not including Benefits." (Bargaining Agreement 2020). To promote a competitive balance in the league, each team is given a cap on the amount of money they can pay their players each year. The salary cap itself is calculated from the annual revenue of the NFL. The more money that the NFL makes, the more that teams are able to spend on their players. With this cap, teams have to strategically plan in which players they would like to allocate their resources. When calculating the cap hit of a players contract, incentives are either deemed likely to be earned, or not likely to be earned. If they are likely to be earned they are included in the salary cap and those that are not likely to be earned do not. Due to this, many incentives are constructed in ways that are not likely to be earned. Incentives not impacting the salary cap also makes them appealing to both the players and organizations. It rewards the player for performing on the field, and ensures the owners that if he is paying the player a higher wage, he is performing well on the field and for the team.

Continuing on the pay of players, it is also important to note the likeliness of players. Players that are popularized on social media or considered the “face of a franchise” likely plays a role in what NFL organizations look for. Circumstances where players become social media personalities and celebrities often draws more attention to the organization. This most recent year Kansas City Chiefs tight end Travis Kelce was in a very publicized relationship with Taylor Swift. Drawing new attention and audience groups to the NFL and specifically Chiefs games. This publicity draws more fans to games, increases viewership of games, and increases jersey sales. With the cap space of teams being determined by the revenue of the NFL, it further incentives players to expand the popularity of the League.

Two more crucial aspects of the player pay in the NFL is the aspect of the franchise tag and that players can be cut by teams and teams then do not have to pay all aspects of that contract. Each team in the NFL is allowed to “tag” one player each season for players who are eligible that season for free agency. The franchise tag can be used up to three times for the same player. The franchise tag is calculated in one of two ways, averaging out the top five paid players and the position or 120% of their most recent salary(Collective Bargaining Agreement 2020). The total that is higher will be their salary for one season and they will become a free agent again in the following year. How this is different from other contracts, is that the player does not have the ability to decline the franchise tag and enter free agency. The ability of owners to cut players also impacts what players are paid even if they are on contract. If a player is cut, those players will not get all of the money as agreed to in the contract. The ability to cut players creates economic incentives for them to force players to renegotiate contracts when players are performing poorly. The only exception is if a player is on the injury report, they are obligated to come to an injury settlement(Collective Bargaining Agreement 2020). The ability to force players to renegotiate contracts and the franchise tag is yet another example of how owners have an imbalance of power over the players in the NFL.

Structure of the NFL

The NFL is a monopsony, which leads to a number of labor market inefficiencies (Boal, Ransom 1997). In a perfectly efficient market for labor, where the supply of labor intersects with the demand for labor, wages would be set at optimal levels. In a monopsony, like the NFL, there are few teams and the NFL limits the ability of players to move from one team to another. If a player is not compensated fairly, he can not just change teams and go to one that will provide higher pay. The draft, the mechanism that players are selected to join teams and play professionally also creates inequities to players. If a player can not come to a negotiated contract with the team, the players options are to re-enter the draft a year later, or have the team trade the rights to the player to another team; who the acquiring team is, is out of control of the player and rests with the team. With the NFL as effectively the one buyer for talented football players the owners of the team hold a level of power over the players. Many athletes including Aaron Rodgers have publicly spoken poorly of NFL Commissioner Roger Goodell and the shortcomings of the NFL. The NFL is not an exception in taking power away from the players and similar situations exist in many professional team sports. The most remembered contracts in the NFL are the bad ones. Players getting money and disappointing on the field. Causing disruptions within the fan base and front office, they use this to their advantage when considering other contracts. The contracts of the NFL tend to follow a pattern of those that came before them. For example, the next up and coming quarterback wants to be considered the best quarterback in the league and paid like it to the franchise they play for. In addition to this, the NFL is able to use contracts that have not panned out as reason to not pay the next wave of players. The NFLPA is in place to protect players to some degree, but clear inefficiencies are very apparent. While the NFLPA has negotiated Free Agency within the NFL whereby players can negotiate pay between times when individual contracts expire, players are only eligible for Free Agency after 3 or 4 seasons (years). It effectively doesn't exist for most players as the average tenure of a player in the NFL is 3.3 years per the NFLPA. The Collective Bargaining Agreement is such that the 2022 agreement will not be renewed until 2030. In a landscape that is constantly changing, it is inherently inefficient to not consider renewing the Collective Bargaining Agreement before 2030.

The monopsony of the NFL creates imperfect labor markets. Monopsonies have the ability to lower wages, control the supply of the labor market, and limit the mobility of employees(Cumming 2022). While the NFLPA has done a lot to negotiate for the best player pay, the NFL has a lot of control over the league minimum wage and the calculation of the salary cap. As the salary cap is calculated as a percentage of the revenue the NFL brings in, it saves owners from needing to continue giving large contracts if the league starts to slow down. The NFL controls the number of players per team and the number of teams in the league, they set the demand for labor. As there are no competitive football leagues other than the NFL, they have the ability to set the price of labor below what would exist if players had more choice on where to play football. Finally, the lack of employee mobility takes away the employee's ability to work elsewhere if they feel that they are being undervalued. As the NFL is way beyond any other football league, these players do not have the ability to attempt to get a job elsewhere and must accept the conditions that they are given.

The NFLPA was created as a source of protection for players from being mistreated by the owners of the league. Created in 1956, the players union was made to provide basic needs for those in the league(NFL Players Association). As each team selects one representative and multiple co-representatives, they represent every player in the league, discussing matters such as wages, hours, and working conditions. They have had some large wins in recent times. In 2011, they reduced the number of practices, increased guaranteed money for those who had career ending injuries, and more money overall. Even more recently in 2020, the players held out waiting for a new Bargaining Agreement. In this agreement that is in effect until 2030 they ensured the players more money, jobs, rights and rest.

As the NFLPA has been making steps to a better NFL for the players, they do not address all shortcomings. While they were able to negotiate this most recent deal, it will be in effect until 2030. The landscape of the NFL and Media in particular is constantly changing and requires more attention than getting reworked every 10 years. The agreement even states, “the NFLPA and the NFL waive all rights to bargain with one another concerning any subject covered or not covered in this Agreement for the duration of this Agreement,”(NFL - NFLPA Collective Bargaining Agreement 2020).While the agreement in meant to protect the players, it also describes in the agreement that players are unable to contest anything that was agreed on.

As the NFLPA and players union attempts to give players a voice and some power, the economic impact of monopsony of the NFL still reigns over the players. With the constant battle owners face attempting to make teams that will win, but also make money, it will be interesting to see how the players union continues to create a better balance of power between the players and the owners of the NFL. The current structure of the NFL plays into there being contracts given to players where they are not being fully compensated for their production.

Pay Transparency

The publicity and transparency of NFL contracts is also noteworthy in regards to the fairness of pay. The issue of transparency of pay is gaining traction among other professions, but the publicity in sports has all but made all contracts available to other players and the public. With new laws being put in place to increase the transparency of pay, more information is being found on the implications it has on workers(Obloj, Zenger 2023). Many platforms are now required to post pay ranges and depict statistics based on gender. There are complicated results while finding the impact of transparent pay.

Pay transparency's most positive influence has been reducing the amount of wage inequality within a workspace. As all workers are able to see the salaries of those around them, firms would be exposed for releasing information showing lower wages across the board for a specific race or gender. Ducking's study conducted in 2023, suggests that there is no racial discrimination in pay for lower paid players.

The transparency of NFL contracts would suggest that players would not allow themselves to get underpaid, especially those players who are the best at positions that are typically higher paid, like quarterbacks. By easily having access to the pay of their peers, it would allow all to fight for contracts that they felt they were deserving of. Some suggest that while those who are underpaid will rise, transparency can lower wages for the vast majority of players(Obloj, Zenger 2023). As the salary cap is a fixed amount, if underpaid players salaries rise, all others effectively have to fall.

Pay transparency can also have a demotivating impact on players as many likely believe they are better than their peers. This is especially true when there is a big range of pay among teams and employees. While not studying NFL Players, a study of employers with transparent pay showed “64% of those paid the average market rate thought they were paid less than average. At the same time, 35% who were paid above market rates also thought they were paid less than average.” Everyone thinks they deserve more money for the work they produce. And in the end, workers want to feel like they are getting paid what they deserve. It is argued that an intermediate level of pay transparency is optimal(Shiohara 2022). Taking into account that pay transparency can make for a more equitable workspace and that there is a decrease in performance due to awareness or being undervalued. Condensing wages, in turn, has an interesting effect on performance. In Major League Baseball, it was found that teams with more condensed wages had better performance on the field(Hill et al 2017). The effects transparency had on performance seemed to be significantly correlated to what the transparency was showing.

The publicity of being underpaid should result in a lower level of performance and the publicity of being overpaid would result in a higher level of performance. The introduction ofPay transparency in the NHL had an interesting impact on the game. Offensive players in the NHL were paid more than defensive ones. This was attributed to goals and assists being more easily measured and defensive statistics were much harder to quantify. The result was that defensive players started to score more goals and the scores given up started to rise (Shiohara 2022). With difficult defensive statistics to measure, a comparison can be drawn to the landscape of the NFL(Shiohara 2022). Touchdowns and yards are more appealing than a tackle. In addition to this, as many see wins as a quarterback statistic, theory about transparency could explain the contracts given to quarterbacks. It is much easier to measure and see a player on offense who’s performance is directly impacting the game than a defensive player. The impacts of pay transparency of the NFL seem to be inconsistent, increasing the wages of those at flashy offensive positions, while hurting defensive or less flashy positions.

Hill et al(2017) looked into pay transparency in Major League Baseball. Concluding that pay transparency has a number of complex effects. Saying that if pay transparency will not make workers feel valued, it could be better to create better alternatives. For example, instead of making all contracts open, it could be better for the workspace to have performance metrics that will reward or have an impact on their pay. Also mentioning that many do not have awareness of their pay compared to others. While these suggestions may be more applicable to other workplaces, the public profile of players and interest in the subject would likely not alter pay transparency in the NFL therefore the NFL should focus on using transparency to make players feel more valued.

Other Factors of a Non- Competitive Player Pay Market

While the product on the field is what is seen and criticized or rejoiced by the fans and viewers of the NFL, the behind the scenes, or business side of the sport is just as important to take into account. There are a number of incentives within the sport that don't necessarily correlate with success, the team, and player pay. Given this, the relationship between players and owners is interesting to note. The goal of the owner is going to heavily influence the personnel decision that they make. Owners have other goals that line up with the value of the franchise, not just winning. The many goals that an owner has can create a divide between the players and owners. Owners are constantly trying to get on field performance at the cheapest rate possible, while players are looking to earn the most for the value they produce on the field.

Eric Jackson writes upon what it takes to be an owner in the NFL. An NFL franchise is currently skyrocketing in value. While everyone is trying to get their share, teams don't often hit the market. "The NFL, after all, isn't a private company. It's a glamorized trade association, financially supported by its 32 members. It's an exclusive club that even the world's richest don't get the chance to be part of. So, if you build the relationships and understand the process, you can join too. Just don't forget the cheddar."(Jackson 2022). Aside from the general desire of owners to minimize player pay, other conflicts of interest between owner interest and player interests arise. One such instance is that owners can have a longer term view of the team, when players have the desire to win and perform in each year. An average player is also only active for 3.3 years(NFLPA). Given this, there are circumstances where winning an individual game, or even performing well in a season is not the best outcome for the team's long term success. The structure of the NFL Draft rewards teams higher picks for losing more games in a season. The team with the worst record in the NFL is rewarded with the first pick in each round and the team that wins the superbowl receives the last pick. It is believed that there are situations where owners will fix the outcomes of their games. In 2022, Tom Hals wrote on two coaches that stood up and talked about owners offering them incentives to lose games. Brian Flores, former head coach of the Miami Dolphins was fired after two winning seasons. After his firing, he claimed that he was offered $100,000 per loss in the 2019 season so the team could receive a higher draft pick. The next day, Hue Jackson, former coach of the Cleveland Browns claimed that he was offered incentives to lose games in 2016-2018. The Cleveland Browns were historically bad in this stretch losing 36-40 games. These claims are currently going to trial regarding their validity. Another factor to consider is that coaches have all the power in who is playing on the field(Delong 2022). Coaches are generally rewarded based on the success of the team however, coaches also most closely represent the interests of the owner on field and would likely make decisions that are consistent with the owners wishes. Players that are near incentives or clauses in their contracts, especially at the end of the season when there are no economic benefits to the team (wins do not matter) could cause them to be benched, but due to the power of coaches and nature of the game, there is limited ground behind a player arguing that a team was benching them for a contractual reason. For example, the coach's rationale might be to give less experienced players, playing time. With the average player's career only being 3.3 years, they often do not have time to wait to perform when their owner is ready to. It is imperative to the development of their career that they are given a fair chance to play and have the ability to earn a fair pay.

More recently there has been an additional conflict of interest within the sports world. The betting industry is rapidly increasing in the NFL, and while there are regulations in place on betting, owners themselves are still allowed to own up to five percent of a sports betting company(Florio 2024). New England Patriots owner Robert Kraft, and Dallas Cowboys owner Jerry Jones are both known to hold ownership in the betting company DraftKings. While there is no information if this ownership has directly led to on the field influences, given the power of coaches and claims made from former coaches it is not inconceivable that an owner would want to influence a win that could result in a financial loss to the betting company, even if it meant winning but not by more than the point spread..

As owners have certain monetary incentives, so do the players. The players may have more incentive than owners as their careers are also often at risk in the NFL. Therefore outcomes are also heavily affected by the motives of players. It boils down to the question, do players play to win or to make money? There are a number of factors to take into account. Kim, Sarin, and Sarin(2018) find that contracts with embedded incentives promote a higher level of effort and play on the field. While this is useful information for owners of the NFL, it also means that players have ulterior motives than to help the team win; they want to meet their performance goals. Therefore, poorly incentivized players may not play with the best interest of the team in mind. As players' incentives are made to promote players to perform better, winning itself tends to be correlated with good performance. In addition to this, there are a number of personal benefits that tie in with winning. Awards like Most Valuable Player(MVP) and Super Bowl MVP are only given out to players who win. In addition to this, performing in the playoffs has a large impact on your value as a player. Likely leading to larger future contracts and sponsorships due to how publicized playoff games are. With this being said, the personal positive impacts that come with winning are important to note. In addition, athletes are highly competitive by nature. Winning affects pride, and other emotional factors. Players like Tom Brady are walking proof that there are some athletes that have only one goal which is to win. Primarily from being the most winning player of all time Brady is now considered the greatest player of all time. Therefore, if a player is injured and only needs 5 more yards to get an incentive bonus, they are likely to hide the injury, and get those 5 yards instead of what might otherwise be in the best interest of the team and winning by sitting on the bench.

Player incentives can also be debated along with the actual validity of statistics. Football is a team sport, and the performance of players' statistics is heavily dependent on the players that are around them. For example, for a quarterback to have a lot of passing yards in a game, receivers will also have a lot of yards. In addition to this, if teams run the ball more when they are winning, teams that win will have more rushing yards. Furthermore, the offensive line gives the quarterback time to throw and room for running backs to run, yet their position group is extremely lacking in performance statistics(Ducking 2023).

While there are positives of incentivizing personal performance, there are also apparent negative impacts. Leading the case is the desire to play. Human behavior, a desire for personal rewards, and monetary incentives can lead players to focus on their own performance rather than the betterment of the team. This could have a negative impact on the team's performance. Playing, and playing well gives a player the chance to make a name for themselves. Impacting their future salaries and opportunities. In addition to this, human behavior could allow a player to believe that if they are playing well, but the rest of the team is performing poorly it would not be due to their performance.

The competitive nature of the NFL guarantees effort, but also forms an interesting relationship and dynamic between players. Players are competing for pay under the same salary cap. Due to this, one player getting a large contract limits the amount that owners can pay other players. Yet at the same time, position groups often fight for each other to get higher salaries so they can use them as leverage for their next contract. This player vs player competition is made more intense due to the fact that players have a limited time in the NFL and the amount that a player makes, while large in the eyes of many, needs to support those players for many years after their NFL careers come to an end. Even though player pay seems high, 78% of players go broke within three years of retirement and 15% file for bankruptcy within 12 years of leaving the league(National Bureau of Economic Research**).** While there are some NFL players who make unbelievable large amounts of money per year, they are the far and few between. Most NFL players are making close to league minimum and need to be protected. Very often these players give everything they have to get an attempt to play in the NFL and when it does not pan out, they are left with limited resources. It is easy to see why players, teammates, would be at odds with one another and how their behavior on field would seek to maximize not just how much they make; which can be at odds with winning,

Many would assume that the labor market would be consistent with Becker's(1971) theories of discrimination in a competitive market. As competition increases, it is extremely costly to discriminate. While a monopsony is not inherently competitive when it comes to labor, there are competitive aspects to the NFL labor market and there is effectively transparency with their player contracts. This would force those who chose to discriminate out of the market because they have a much larger taste for discrimination. Explaining in other terms, the owners' level of discrimination would cause them to choose to pay a white player more than a black player producing the same amount as them. This inefficiency in such a competitive market would leave them significantly less profit and cause them to get beat on the field.

Ducking(2013) argues that there is no discrimination present in the NFL, but taking a closer look at his work is crucial. In his study, he mentions that quarterback, kicker, punter, offensive lineman are all left out of his study. He explains that quarterback, kicker, punter all are one player positions that resulted in small sample sizes, and offensive lineman who do not have sufficient performance dictating statistics. So while pay among players might no longer be affected by race, he leaves out an important factor in racial discrimination. Marquez et al(2023) find that there is a racial influence in the positions of the NFL. It can be seen that quarterback, offensive lineman, kicker, and punter are seen as "white positions". The exclusion of these positions would prove Ducking's finding lacking. To take this further, Michael Reich(1978) explains that discrimination also doesn't just hurt the wages of black players, but would also impact the lower wages of white players. The real beneficiaries of wage discrimination are the owners and high income white players. In this case, Ducking's study found that there is no discrimination, yet the study fails to recognize three primarily white positions including the highest paid position in the NFL. Reich's perspective would argue that quarterbacks would be the primary beneficiary of wage discrimination while even white players at other positions would be harmed.

As the NFL is primarily populated by black players. On the surface, it can seem that there is no inequality within the league, but looking underneath the surface can show that there are inequalities within the league that would prove the NFL market is inefficient and non competitive. While the integration of coaches and important front office positions are far behind the rest of the league(Marquez et al 2023) it would also heavily impact who the coaches would want to work with, especially at the quarterback position.

To sum up, the structure of the NFL, player and owner incentives, and human influences promote an unequal and non-competitive market. The monopsony of the NFL creates an inefficient, and non-free market, bringing wages down for players. Without other job opportunities, the owners have an imbalance in power. Furthermore, player and owner incentives do not always align. The desire to win and the desire to make money do have correlations, but oftentimes cause one side to stray from the other. Finally, the economics of the NFL relates heavily with behavioral economics and the concept that psychology is used in combination with economic theory to truly understand economic decisions.

Chapter 4: Analysis of Actual NFL Contracts

Overall analysis of the economics or the NFL would be incomplete without analyzing actual NFL contracts. In this chapter, there will be an in depth analysis of a number of past and current NFL contracts. While all positions were reviewed, quarterbacks, running backs, and rookie contracts are highlighted due to the recent importance of their contracts and impact they have had on the NFL in recent years. Those three groups of players also highlighted observations found in other specific positions or categories of players. Quarterbacks are the highest paid position in the NFL, their contracts have pushed the boundaries of sports contracts. Running backs as a positional group have been affected the most by recent changes to the playstyle in the NFL driven by the rise of analytics. In addition to this, rookie contracts provide an interesting dynamic. As players who instantly have an impact in the league, but are expected to perform without any experience, and with a few exceptions, they also tend to represent players who are the lowest paid players. In addition to this, it is also important to look at Coaching contracts. Coaching contracts likely line up more closely with the goals of the owners. All of this information on contracts is taken from Sportrac unless stated otherwise. Sportrac has the most publicly available information on contracts. While Sportrac is not affiliated with any league it has a team of researchers and editors within all sports. The purpose of this analysis is to prove or disprove earlier analysis of the NFL.

Looking at the History of the NFL contracts lets us also use the observations along with the pay of players to help make conclusions about current social and economic inefficiencies. When it comes down to it, the NFL, like other sports, is a business. Players need to be properly compensated for the product that they put on the field, and the revenue that they allow the owners to make. Contracts are created in effort to encourage players to perform on the field(Lazear, Rosen 1981). It is often debated if these contracts promote individual or team performance(Schweyer 2021) The history of NFL contracts are very transparent. With an extremely large media presence, salaries are released to the public almost instantly. Owners and players leverage these contracts and the history behind them to produce future deals.

Coaching Contracts

Just as often as NFL organizations look for the next best quarterback, they are looking for the next head coach of their future. Whether it is a coach like Bill Belichick who was great at creating a culture (good and bad) or Andy Reid for his play design and play calling, there are a number of ways that coaches affect the game. It seems that no matter the rest of the design of a team, a large portion of the blame or praise goes to the head coach of a team. When coaches do well, they do not lack compensation from their organization. Looking in depth to coaching contracts will be more difficult due to all teams not releasing information but there are a number of experiences that can be observed.

In 2023, future Hall of Fame coach for the Patriots Bill Belichick, was paid $20 million dollars. Just to name a couple more, Broncos coach Sean Payton received $18 million, Pete Carroll and Mike Tomlin both got $15 million, followed by Mike Tomlin, Andy Ried, and Jim Harbough getting $12.5, $12, and $12 million respectively(Gough 2023). All six of these coaches have been in the league for a number of years in which they have all won at least one superbowl. None of these stand to be an outlier from the rest besides Mike Tomlin who is the only black coach listed.

One thing that stands out right away is the difference in the salaries from the early 2010s to the early 2020s. In 2011, Bill Belichick was still the highest paid coach, yet he was only making $7.5 million dollars which is nearly a third of the money he made in the last season. Pete

Carroll was the third highest paid coach at the time, yet he only held a 40-40 record bringing the Seahawks to a few mediocre seasons. Close behind him making $5.75 million dollars was Jeff Fisher, who was about to begin his 18th straight season with the Titans despite only six playoff appearances and zero superbowl wins(Riper 2011). Head coaches were not valued extremely differently from each other like they are more recently now. It is expected to see that the contracts will continue to rise in correlation with the overall numbers in the NFL increasing over the years, but it seems that the recent contracts put the most importance on one specific metric which is winning.

There are not many telling performance statistics for NFL coaches besides winning. With this being said, winning games played are heavily seen within the highest paid coaches of the NFL. This would tell that they are incentivized through their contracts to perform on the field so much so that coaches have been fined or suspended for winning at all costs. In 2012 head coach Sean Payton was suspended for rewarding players for deliberately injuring opposing players and in 2007 Bill Belichick was fined for spying on opposing teams. In addition to head coaches, there are a number of other positional coaches in the NFL. They are given new opportunities due to the success that they have at lower levels. For example, an offensive or defensive coordinator on a superbowl winning team will be heavily considered to be signed as a head coach. Andy Ried currently has the largest coaching tree(Juza 2023). Bill Belichick also has created an impressive coaching tree.

Rookie Contracts

Rookie contracts play such a large role in the structure of teams in the NFL. The NFL draft consists of seven rounds where the 32 teams pick in the reverse order of where they finish in the standings. For example, the team that wins the Super Bowl receives the 32nd pick in every round, and the team with the worst record receives the 1st pick in every round. As of 2011, each rookie contract is over four years(first round picks get a fifth year option for teams) and corresponds with where they were taken in the draft. Using the 2023 draft as an example Bryce Young, the first overall pick, got a contract of $37.95 million. Nolan Smith, the 30th overall pick, got $11.9 million. Moving down the list, 100th overall pick Tre Tucker got $5.3 million. We see how the top picks get a large deal and after a steep decline, begin to flatline into the later rounds. The 259th, and last pick, Desjaun Johnson signed a $3.9 million deal(Sportrac).

In 2011, there was a massive reconstruction made to rookie contracts. Capping the amount of money teams can spend on rookies. This stopped the negotiation that rookies had to get the most money out of their rookie deals. In addition to this, rookie contracts hold players for a longer time than the average 3.3 year NFL career(NFLPA). Locking young athletes up in the prime of their careers on lower salaries. This challenges the competitiveness of the NFL player market. Getting an elite player on a rookie contract locks a player up for four years at a low price. This is extremely appealing to rebuilding teams. To get a productive rookie quarterback gives you the flexibility to get more expensive proven talent at other positions. Looking at the history of the number one pick there have been 34 quarterbacks taken to 23 running backs(Reardon 2023). 16 of those quarterbacks have also been taken since 2000. Showing the shift in positional value.

Before 2011, young draftees were starting to realize the power that they held to organizations. They would sit out and withhold playing to get large contracts. The end of these hold outs would then be record setting contracts. In the 2010 draft, Sam Bradford was the last rookie contract of his kind, and his contract did not disappoint. He signed a six year $76 million contract with $50 million guaranteed. Setting a record for being the largest rookie contract.

While his contract did not disappoint, Bradford's play and attitude as a player seemed to do nothing but that. He went on to have zero winning seasons for the Rams and have two season ending ACL injuries. Bradford's contract likely had a large impact on the rule change. Another standout contract is Jamarcus Russell's six year $61 million that he signed after getting drafted as the number one pick in 2007. Of the $61 million, $32 million were guaranteed with an additional $7 million in potential incentives(Sportrac). Coming out of LSU as one of the most hyped prospects ever, Jamarcus Russell is considered one of, if not the biggest bust in the NFL to this day. Combining this with the gargantuan contract he got after holding out makes it look that much worse. Russell only made it three unproductive seasons on his contract with the Raiders before being cut. Two highly touted prospects were given large contracts with large amounts of guaranteed money. The large amount of guaranteed money could have had an impact on the lack of incentive to perform on the field. In addition to this, it is likely that contracts like this gave owners terms to make changes to the structure of rookie deals.

The Detroit Lions are a prime example of a desperate team going to desperate measures. Going through years of rebuilds and bad records they were constantly picking near the top of the draft, and with the need to lock up talent have given out three of the largest rookie contracts of all time. The first of which being wide receiver Calvin Johnson in 2007. The future Hall of Famer was given the fifth largest contract at $64 million and $27 million guaranteed(Sportrac). He holds the record for most receiving yards in a season and is second all time in receiving yards per game. Despite cutting his career short to preserve his health, Johnson is still considered one of the greatest wide receivers to ever play the sport. Breaking out in his second season and never looking back, his hefty contract paid off for the Lions. Next, after a zero win 2008 the Lions found themselves yet again at the top of the draft order. With stellar quarterback prospect

Matthew Stafford coming out of Georgia sitting atop the draft board, the Lions selected him with the number one pick, signing him to a six-year $72 million contract with $48.4 million guaranteed(Sportrac). The second largest contract given to a rookie, made him the fifth highest paid quarterback by year two of his career. Stafford still plays in the league today and looks to be a strong candidate for the Hall of Fame one day. Despite a number of losing seasons with the Lions, Stafford was considered one of the best at his position. Stafford ranks fifth in passing yards and 6th in passing touchdowns in the 2010s(2010-2019). Before earning a large second contract, Stafford did more than prove himself worthy of being an NFL caliber quarterback. The final notable rookie contract given out by the Detroit Lions was Ndamukong Suh in 2010. Given the fourth largest rookie contract Suh accepted a six-year $68 million dollar deal with $23.2 million(Sportrac). Suh won defensive rookie of the year, made four pro-bowls, and was selected to first team All-Pro in 2010, 2013, and 2014. Suh proved to again be one of the best at his position for the duration of his rookie contract earning a number of opportunities in the league after.

What makes this interesting is putting all of these players together is that they were able to all produce under similar deals with varying amounts of guaranteed contracts. It supports that there are other incentives that would reinforce performance. In addition to this, it supports that these are often the best years of a players career and deserve to get larger rookie contracts. Once Matthew Stafford started to produce, we also saw the Detroit Lions franchise start to win games. In the NFL, Rookies come into the league ready to produce and make an impact. Furthermore, the pay transparency of these rookies seemed to be having an impact on the older players. Upset that these rookies were getting higher salaries than players already producing in the league, presents another negative side effect of the NFL's pay transparency.

More recently in 2017, after the rookie contracts were capped, the Kansas City Chiefs drafted Patrick Mahomes with the 10th overall pick and signed him to a four-year $16.4 million contract(Sportrac). On his rookie deal, he had already become one of, if not the best quarterback in the NFL and the Chiefs were paying him a fraction of what other quarterbacks in the league were making. Given the Chiefs were already a playoff caliber team, since Mahomes the Chiefs have always finished first in their division. Having Mahomes perform at this level on the contract he was on allowed them to get talent in other places giving them one of the most dynamic offenses in the league, paired with a very solid defense as well. Since extending Mahomes, they had to let a lot of talent walk due to the magnitude of his contract. While Mahomes was able to produce through his rookie deal, he was producing elite numbers, exponentially outproducing his contract. Capping the pay for Patrick Mahomes and locking him into a 4 year contract as a Rookie demonstrates the benefit that owners get when players lose the ability to negotiate at will (or annually). Mahomes would have certainly had the ability to increase his pay much sooner and yet was at risk of a career ending injury, and never realizing the financial benefits that should be awarded to a player of his talents...

Running Back Contracts

This history of running back contracts has gone through a lot in the past few years. Running backs used to be the focal point of NFL offenses, touching the ball more than any other offensive player. With the recent rise of analytics, the true value of a run has proven to be lower than originally thought. Due to this, offenses have shifted to passing the ball more. In addition to this, running backs' success is now being considered more of a product of the rest of the offense performing well, rather than the running back being the difference maker. While the running back gets all of the credit for statistics like total yards rushed and yards rushed per carry, offensive linemen, and the overall success of the team are two large factors in the success of a running back(Mulholland 2019).

Going back to 2000, we can see that Edgrin James is the highest paid running back and the fifth highest paid player in the league at $6.7 million(Sportrac). Dorsey Levens and Emmit Smith were both not far behind being in the top 15 paid players. James was on his rookie contract, he was still very young and producing at a high level. This was before the Rookie Cap was put in place. Smith, being the all time great that he is, was still producing despite his high age. Where we see a difference is the statistics of Dorsey Levens. His career is riddled with injuries and inconsistencies. Levens signed a five-year $25 million dollar contract in 1998 directly after the best year of his career (Pro-Football-Reference). He never lived up to these numbers after that year. While future player performance is unpredictable, Elgrin James would not be able to negotiate the contract he got as a Rookie today.

Running backs at this point in history, felt more valued by their franchises. Organizations were willing to reward them with contracts that ranked near the top of the league if they were producing at that level. This had a large impact on properly incentivizing players to perform. Emmit Smith, was the face of the Dallas Cowboys, and they were willing to pay him accordingly. Although it could be argued that the Cowboys offensive line was a key factor in Smith's success, his statistics speak for the success that he was able to produce on his team.

The decade of the 2000s included a number of all time great running backs like Ladanian Tomlinson, Shaun Alexander, and Tiki Barber. In the case of Ladanian Tomlinson, Tomlinson played in the NFL from 2001-2011. In 2004 he signed an eight-year $60 million contract with $21 million guaranteed(Sportrac). From 2004-2008 Tomlinson had one of the greatest stretches of seasons by any player in the NFL. In this stretch he had over 1,500 total yards in every season, eclipsing 2,300 total yards in 2006(Pro-Football-Reference). Not only did he have the most yards on this contract in 2006, but he also had 31 total touchdowns and set a record for the most rushing touchdowns in a single season at 28. After his 2008 season, there was regression from the previous four seasons of greatness and the Chargers quickly responded to this, by restructuring his contractWhile Tomlinson still had a productive 2008 season, his efficiency metrics fell. This combined with his older age, caused the Chargers to cut him. While the Chargers ended up re-signing him, it was to a contract worth a fraction of the price. Tomlinson, had a large amount of his contract as a non guaranteed salary. Due to this, he would need to perform each season to ensure that he would stay on his salary. Even with one of the greatest five season stretches seen by a running back, the Chargers quickly restructured his deal, and eventually cut him due to a decline in production from his older age. Tomlinson had proper incentive to keep producing at an elite level to earn his salary, but his decline in age limited him to only earning around 75% of his deal(OverTheCap). Tomlinson's experience is a clear example of how owners use the threat or actual act of cutting players to force them to renegotiate contracts and lower expenses for the team overall.

Moving into the early 2010's we see running back contracts still increasing in salary with the growth of the league. Adrian Peterson stood out as a difference maker, setting a record in 2011 signing a six-year $86 million dollar deal with $20 million guaranteed(Sportrac). Peterson went out and produced like his contract would depict. While Peterson was playing well through this contract he came to the conclusion that he had minimal guarantees compared to others. Due to this, he signed a new deal in 2015 that would give him more guaranteed money. This is an example of where Peterson most likely used the contract and the experience of Ladanian Tomlinson to his advantage. While Peterson played very well for the duration of his deal, he still did not make it to the end of his contract as the Vikings cut him in the last year due to a decline in play. We start to see these longer deals become less frequent in the 2010s as most other players are given deals between three and five years(Sportrac). Due to the decline in Peterson and Tomlinson, owners seemed to not want to make this same mistake again. The wear and tear of playing running back does not allow them to have long careers.

In more recent years, there has been a lot of stirring in the world of running backs. A major moment in running back contract history was the contract talks between Pittsburgh Steelers running back Le'Veon Bell. Bell, was a second round draft pick who burst onto the scene in the NFL with his elite skill set as a rusher and as a receiver out of the backfield. Considered to be one of if not the best running back in the NFL at the time he was looking to land himself a large second contract. With there being an extensive history of running backs declining with increases in age and volume the Steelers held back from offering Bell the contract he was looking for. Instead, they were using their Franchise tag on Bell, which would give Bell a one year deal at the average salary of the top five paid running backs, or a deal worth 120% of his previous deal(whichever is higher)(Collective Bargaining Agreement 2020). After tagging Bell for the 2017 season, Bell was not going to let himself get tagged again. In an effort to stand up for him and other running backs looking for contracts he decided to hold out on his second franchise tag in 2018. With Bell continuing his holdout for the whole 2018 season, he hit the free agency market again in 2019. Bell was awarded with a four-year $52.5 million dollar deal with $27 million guaranteed that he signed with the New York Jets(Sportrac). Bell had an extremely underwhelming 2019 where he put up career low efficiency numbers and had a career low in touchdowns(Pro-Football-Reference). After just two more games in 2020, he was cut from his contract finishing the year on a one-year $1 million dollar deal with the chiefs and then finishing his career in 2021 with a practice squad contract. Le'Veon is a good example of how owners can use the Franchise Tag to harm player pay. It is also hard to imagine that his performance with the Jets was also not impacted by his inactivity in 2018, Other running backs followed Le'Veon Bell in holding out for more money. Entering the final year of his rookie deal in 2019, Melvin Gordon was looking for a contract extension. Despite receiving offers from the Chargers, Gordon decided it was best for him to sit out and attempt to get a better deal. That deal did not come, and in the meantime Gordon's backup was excelling on the field. Realizing the implications of Gordon's teammate performing so well in his spot, he decided to end his hold out and try to come back. Not in playing shape, and going through training camp Gordon put up a subpar season. He followed with signing a deal in 2020 giving him less money than the deal he rejected the year before(Sportrac). While Gordon's contract history does not look flashy, his experience happened within the same few years as Bell's. A trend is starting in that owners are more aggressively lowering the total pay of running backs.

While Bell and Gordon were fighting for their contract there were also record breaking deals being given out to running backs. Todd Gurley received a four-year $60 million deal with $45 million guaranteed that is the third largest annual salary for a running back and Ezekiel Elliott was given a six-year $90 million deal with $50 million guaranteed in 2019 that stands as the second largest annual salary(Sportrac). Both of these contracts at the time of signing made them the highest paid running backs ever. In both cases, due to regression and declining health Gurley was cut and after the 2023 season and a couple of disappointing seasons prior, Elliott was cut by the Cowboys. With this combination of record breaking deals that left teams wishing they had their money back and the success owners had that resulted in failed holdouts, owners quickly became less willing to pay running backs what they were previously worth

Seeing the effects on current contracts, while there are still large deals being given to running backs, where we can see the impact is mainly on the length of these contracts. Alvin Kamara of the New Orleans Saints stands as the only running back with a contract over four years in length signing a five year deal in 2020. Christian McCaffery, Josh Jacobs, and Miles Sanders are all on four year deals(Sportrac). Besides this, we have been seeing top running backs in the league getting offered deals that are three-years or less to where it is becoming the norm. While annual wages are going up like the rest of the contracts in the NFL, other positions are increasing at a higher rate, with the total years on these contracts decreasing. With Gordon and Bell in the front of everyone's minds, it is taking power out of the players' hands and forcing their hands on taking lesser deals. In the last few years, Jonathan Taylor and Saquon Barkley have had to act differently because of what Bell and Gordon went through. Jonathan Taylor was a young running back, who burst onto the scene after being a highly regarded prospect coming out of Wisconsin. After a breakout season in 2021, and an injury riddled 2022, Taylor decided that he was not going to wait like others have and demand an extension. The Colts said that they were not ready to extend Taylor before his contract expired. Taylor requested a trade and extended the recovery time of his injury into the 2023 season. Eventually the Colts had a change in heart, along with Taylor giving in as they agreed on a three-year $42 million deal with $26.5 million guaranteed(Sportrac). This made Taylor one of the highest paid running backs per year. In addition to this, Saquon Barkley was another example of an extremely talented running back who was looking for a contract extension. While he threatened the New York Giants to sit out if he was not extended before the 2023 season, he eventually gave in and decided to play on the franchise tag, which Bell refused to do years before. Now in the 2024 offseason he hit free agency and signed a three-year $37.75 million deal with $26 million guaranteed(Sportrac). Right in front of our eyes are examples of how the running back market has changed over the years. No longer do we see running backs get paid as a premium player on the field and be given deals up to eight years like Tomlinson was.

All in all, while running backs were once standing up for each other and arguing that their wages should be increasing with the rest of the league, this most recent wave of running back contracts and the pay transparency the league holds, is being taken advantage of by the owners. Using both the arguments that running backs as a whole are replaceable and not very impactful to the game along with the fact that running backs are declining at younger ages compared to other positions has fueled this thinking. Unless there are large changes within the play of the sport, it seems that with the increased use of analytics and these recent contracts, it will take a lot for running backs to be able to regain power and gain higher wages. This is another reason why it would be important for the league to allow players to seek their second contract earlier in their career. If a rookie or second year player out producing their rookie contract by a longshot, they should be able to properly seek for a better wage.

Quarterback Contracts

The Quarterback is considered by many to be the most important, and hardest position in all of sports. The money that they receive speaks for itself. The search for a franchise quarterback never stops. NFL franchises are either in a spot with a young talented quarterback, or they are wondering who is going to be the next to take over and replace the aging Face of the Franchise (Mulholland 2019). Even greats like Tom Brady, Aaron Rodgers, and Brett Farve were producing at an elite level and pressured to continue doing so by their organization with highly regarded back up players. What makes quarterback contracts interesting is the desperation that teams will come to if it means having a good quarterback leading their team. Due to this, we see a number of large contracts given to quarterbacks simply because of the scarcity of the position and how valuable it is to have a good quarterback. In addition to this, with the way the game is changing, and the need to be throwing the ball at a higher rate, this need increases every season.

Starting in the 2000's there is nothing out of the ordinary. Most of the highest yearly paid players are quarterbacks(Sportrac). What comes with being the highest paid player in the league also comes with the most pressure to be ready to perform on the field. Signing his nine-year $86 million deal in 2000, Dallas Cowboys quarterback Troy Aikman did not make it two years on this deal. After sustaining a concussion before the 2001 season and battling a number of injuries throughout his career the Cowboys decided it was time for them to move on. Despite having already paid a $13 million signing bonus, the Cowboys were able to do this with ease due to the lack of other guaranteed money in Aikman's contract. Inking similar deals allows the team to have control of the players over the life of the contract, but at any moment they could decide to cut their losses and move on to the next option leaving the player without a wage. Looking at Aikmans statistics and comparing them to current players would give you the impression that he was a terrible player given the nature of the game and how it has evolved, but he was a star quarterback at the time and the Cowboys were deciding to move on from their former first overall pick in 1989, six time pro bowler, and three time super bowl champion. Owners work to take little risk in NFL contracts. While NFL players risk that they will outproduce their contract, or get cut if they don't, it is clear that there is a large imbalance of power between players and owners.

Moving into the 2010s we begin to see yearly salaries start to put more emphasis on the quarterback position. The top five annual salaries are all quarterbacks and yearly wages are increasing in 2010. We also start to see more contracts including guaranteed money(Sportrac).

Guaranteed money gives the player some stability to know that they will be getting a certain wage on their deal despite one bad season or an injury. During these years, we see the same quarterbacks who stick around and give their teams the opportunity to win every week, and the chance to make a playoff push every year. Those players are Tom Brady, Aaron Rodgers, Philip Rivers, Drew Brees, Peyton Manning along with others. These years continued the narrative to push for the next great quarterback in the draft and also pushed the narrative to sign veteran quarterbacks that could lead the team and win games. One player that stands out is Tom Brady. Brady was known his whole career as a winner, and his contracts depict this. Not necessarily through his high yearly salaries, but rather the lack thereof. From 2010-2014, Brady had an average annual salary of $18 million. In his next deal it was lowered to $13.6 million, and eventually restructured to be $9 million(Sportrac). This was so the Patriots had the ability to sign talented players at other positions. Despite no signs of slowing down and a number of winning seasons, Brady gave the Patriots an advantage similar to a team that was able to get a rookie on a cheap contract. These quarterbacks were the centerpiece of their franchise and were seen as invaluable assets to the organization. Given this, it is more common that we see examples like Brady, where they are producing much more than they are getting paid. This would encourage teams to allot a large amount of their cap space to ensure that they have a reliable option at quarterback.

Brady provides as an example that NFL players are motivated by winning, more than pay. If players wanted to win as badly as Brady did, taking pay cuts would be much more of a common occurrence. In addition to this, the desire to win will take any feeling of being undervalued by the organization. Brady uses the incentive of winning and awards such as Super Bowls and MVPS to create the desire to perform on the field(Lazear Rosen 1981). While Brady no doubt used those wins and fame and converted those into endorsement deals that were financially rewarding, one of the lessons learned is that the best performer does not have to make an astronomical amount. Brady recognized (consciously or unconsciously) that the value that was created by lowering his pay, which increased the pay of many other lower paid players, likely helped the overall team's desire to win. .

Moving to the end of the 2010s, we begin to see massive shifts in the market for quarterbacks. Every starting quarterback that is deemed startable in the eyes of the franchise is worthy of one of the largest contracts in the sport. In 2017, the top sixteen paid players were all quarterbacks(Sportrac). Von Miller, was the seventeenth highest paid player and was considered the best defensive player in the NFL. This shows us that average quarterbacks are worth more than elite talent at other positions. What is interesting about these deals is that the difference between the players was not that significant. Brock Osweiler, and Sam Bradford were both extremely disappointing quarterbacks making $18 million in 2017, while elite quarterbacks were often not getting paid more than $20 million annually(Sportrac).

Just like we see the overall market and pay of the NFL increase over the years, so do the contracts that were given out and quarterbacks enjoyed those benefits. In 2018 Kirk Cousins signed the first fully guaranteed contract. The three-year $84 million deal shocked the NFL world(Sportrac). Cousins was drafted by the Washington Redskins in 2012 and played for four years under the Rookie Contract. After his rookie contract ended he could not come to an agreement with the Redskins on his contract, and the Redskins used the franchise tags in both the 2016 and 2017 seasons to keep him. In 2018 he signed a historic contract with the Vikings. Cousins performed well on this deal. Earning multiple deals after that and still playing to this day; he has cemented himself in football history. Now each year, it seems that the market is getting set at a higher bar. In 2022, Deshawn Watson followed in Kirk Cousins footsteps getting another fully guaranteed contract(Sportrac). Watson was coming off of a year where he was not playing due to allegations of sexual assault and the Cleveland Browns decided to take a chance on the former young phenom. Giving up multiple high draft picks to acquire him in a trade they agreed to a whopping $230 million deal over five years to try and fix a problem the franchise had at quarterback. The Browns have been one of the least successful teams since the 2000s and haven't had a consistent option at quarterback since the early 90s(Pro-Football-Reference). Despite having high draft picks every year due to their poor performance the team has seen numerous busts. Watson was a prime example of a desperate team coming to desperate measures.

Oftentimes, quarterbacks that are not considered to be at the top of the position in talent or production are still given massive deals to lock them down. Currently in the NFL, there are fifteen quarterbacks that are in line to receive $40 million or more in this upcoming season(Sportrac). All headlined by the ten-year $450 million contract that the Chiefs signed Patrick Mahomes to in 2020(Sportrac). Mahomes proved that he was one of the best players in the NFL from the moment that he stepped on the field and his contract reflects that. The invaluable asset to the Kansas City Chiefs holds the record for the largest valued contract to ever be given out in the NFL. It is one of two quarterback contracts that surpasses five years and casts a large shadow on Josh Allen's six-year contract(Sportrac). Where his contract falls short is the amount of guaranteed money. A group of young quarterbacks all signed large extensions in 2023. Joe Burrow, Justin Herbert, Lamar, Jackson, and Jalen Hurts were all given deals making them the highest paid players in that order for the 2024 season(Sportrac). Not only this but we see a large amount of money guaranteed for their contracts. Quarterback contracts do not look like they will stop increasing as the NFL will continue to pay the most important player on the field.

The quarterback position is the outlier of the NFL. Due to the importance of the quarterback position, quarterbacks are able to negotiate higher salaries and use pay transparency in a way that benefits them. Aside from high pay, quarterbacks have been able to negotiate higher guaranteed amounts that show the importance of that aspect of player pay that is lacking in other positions. Fair pay in the NFL needs to address more guaranteed pay. The experience of Tom Brady’s pay also provides some proof that while quarterbacks should be highly compensated, it should be closer to the pay of other players and a maximum pay for players should be considered...

Conclusion

Findings point to the overarching theme that the current structure of the NFL creates a non-competitive market for players pay and that since owners benefit from taxpayer support, pay to players needs to improve. NFL minimum contracts provide players with comparatively large salaries, yet there are still a number of factors that blind fans and spectators from these issues. Nonetheless, the power of a monopsony further allows owners to reign over the players of the league. Owners use pay transparency and the lack of competition in the NFL market to take advantage of the average NFL player.

To work towards a better NFL, the following changes should be instituted:

1) Increase the percentage of pay that determines the salary cap

   The first structural change would be to increase the percentage of revenue that creates the salary cap. One shortcoming of this solution is that it would most likely benefit the high income workers allowing owners to separate them more from the rest of players. There are minimal financial risks that owners in the NFL face in part due to sharing of revenues, the salary cap and tax payer support. Due to this, owners should be earning a fair bit lower return on their investment.

2) Institute a Maximum pay for players

   The NFL should place a cap on individual salaries as well. A system that is already present in the NBA, maximum contracts assist the league in becoming more equitable. When pay is transparent, better outcomes are achieved when the variation of pay is lowered(Obloj, Zenger 2023). The current discrimination in the league is hurting both lower income black and white players while it leaves owners and the higher income players reeking the benefits(Reich 1971). Shown from the effects of pay transparency, players need to feel valued(Obloj, Zenger 2023). Getting a maximum contract will still leave those at the top feeling valued, while allocating more cap space for other players. The economic benefit to all, is that when players perform with stronger goals of winning, games will be more competitive and interesting to watch increasing NFL viewership and thus the salary cap.

3) Create more of a free market for Rookies

   Another standout issue in the current picture of the NFL is that careers are extremely short, and the changes made to rookie contracts have limited their power to argue for pay on their first deal. Having similarities with the ability to rework the Collective Bargaining Agreement more often, allowing NFL players to reach their second contract sooner and removing the rookie cap would create a more free market for those players. While giving rookie players the ability to negotiate their rookie deals could decrease the incentive to earn their second contract, shortening rookie contracts would give players the incentive to perform for their second contract and be paid while they are still young and in the prime of their career. In addition it will allow them to work incentives more properly into their contract.

4) Union contract is negotiated more than once every 10 years

   The NFL, like the rest of the world, is constantly changing. The landscape of the league could develop a need for change, yet the Collective Bargaining Agreement will not be touched until the end of the decade.

5) For the same reasons that Rookies should be allowed to enter Free Agency earlier, the Franchise Tag should be eliminated.

6) Owners should not be allowed to invest in gambling companies

7) Create a guarantee of salaries for cut players(this sum would not hit the salary cap)

As the NFL stands, viewership and owner franchise value are growing at an exponential rate. Furthermore the current conditions of the monopsony give owners little incentive to change its current structure. This is why it is important to bring light to the inefficiencies in the player market and pay discrimination that is taking place. The structure of the NFL promotes an inefficient and non-competitive market, but the same issues are consistent in labor markets across the world. The NFL works to please their fans and deep rooted societal issues and racism prevent the NFL from needing to make a change. The NFL has had its fair share of players speak out on human rights and equality, and still they run large within the league. Due to this, it is hard to see large changes being made to the league without steps being taken to fix these issues outside of the league first. The league minimum salary is still close to $800,000 a year, which makes it hard for the public to feel sorry for the players. Yet the effects of an athletics career on one's mental and physical health heavily impacts their ability to continue making money after their career. While the players union attempts to make life better after their careers, it is not enough. It is important these players are properly compensated for the product they leave on the field.

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