THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF RISK MANAGEMENT

WHO WON? – AN ACTUARIAL ANALYSIS OF THE NFL COLLECTIVE BARGAINING AGREEMENT

ZACHARY H ALTMAN
SPRING 2013

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree
in Actuarial Science
with honors in Actuarial Science

Reviewed and approved* by the following:

Ron Gebhardtsbauer
Faculty-In-Charge of the Actuarial Science Program
Thesis Supervisor
Honors Adviser

Lisa Lipowski Posey
Associate Professor of Business Administration
Faculty Reader

* Signatures are on file in the Schreyer Honors College.
ABSTRACT

At the end of the 2010-2011 season of the National Football League (NFL), the Collective Bargaining Agreement between the NFL and the NFL Players Association (NFLPA) expired. Following the expiration of the CBA, a 136-day lockout occurred as the two sides attempted to create a new agreement that would allow the 2011 season to take place. After an extensive period of arbitration and negotiation the NFL and NFLPA came to terms with a new ten-year agreement, the 2011 NFL Collective Bargaining Agreement.

This thesis examines the 2011 NFL Collective Bargaining Agreement from an actuarial perspective by comparing it to the previous CBA to identify the value of the negotiated changes. Through this process, a determination is made on whether the NFL or the NFLPA derived more financial benefit from the creation of the new CBA.
# TABLE OF CONTENTS

List of Tables .................................................................................................................. iii

Chapter 1 Introduction to the National Football League and Collective Bargaining .......... 1

1.1. The National Football League ................................................................................. 1
1.2. The National Football League Players Association ............................................... 2
1.3. Collective Bargaining in the NFL ............................................................................ 2
   1.3-1. Expiration of the 2006 Collective Bargaining Agreement ................................. 3
   1.3-2. The 2011 Collective Bargaining Agreement ....................................................... 4
1.4. Thesis Overview .................................................................................................... 5

Chapter 2 Changes in the Collective Bargaining Agreement from 2006 to 2011 ............. 7

2.1. League Discipline ................................................................................................. 7

2.2. Revenue Split ........................................................................................................ 8
   2.2-1. Total Revenues ................................................................................................. 9
   2.2-2. All Revenues .................................................................................................. 10
   2.2-3. Stadium Credit ............................................................................................... 10
   2.2-4. Guaranteed Player Cost Amount ..................................................................... 11

2.3. Player Health and Safety ....................................................................................... 15
   2.3-1. Legacy Fund ................................................................................................... 15
   2.3-2. Joint Contribution Amount ............................................................................. 16
   2.3-3. Additional Player Health and Safety Changes .................................................. 17

2.4. Allocation of Funds ............................................................................................. 18

2.5. Other Notable Provisions .................................................................................... 20

Chapter 3 Conclusion .................................................................................................. 21

Appendix A – Stadium Credit ...................................................................................... 24

Appendix B – Player Benefit Costs ............................................................................. 26

Appendix C – Definitions ............................................................................................ 28

BIBLIOGRAPHY ............................................................................................................. 29
LIST OF TABLES

Table 2-1. NFL Total Revenues Lexicon..................................................................................13
Table 2-2. Players' Percentage of "Total Revenues" Since 2000............................................14
Table 3-1. NFLPA Benefit Amounts for the 2012 League Year ............................................21
Chapter 1

Introduction to the National Football League and Collective Bargaining

In the current landscape of American sports, there is no greater giant than the National Football League (NFL). In 2011, NFL games accounted for 23 of the top 25 most-viewed television broadcasts of the year (Badenhausen). In 2012, the NFL generated an estimated $9.5 billion, nearly 25% or $1.8 billion more than the next largest sports league in America, Major League Baseball (Gaines). The dominance of the NFL in the consumer market was made even more apparent in 2013 when Super Bowl XLVII captured a total audience of 164.1 million people, according to figures provided by CBS, making it the most viewed television show in United States history (Zurawik).

1.1. The National Football League

Originally established in 1920 as the American Professional Football Association, the NFL adopted its current name in 1922. In 1966, the NFL merged with the rival American Football League (AFL), retaining the NFL brand and becoming the predominant football league in the United States (“NFL History by Decade”). With 32 teams across the country and nearly 1700 players, the NFL is currently the most popular sports league in America.
1.2. The National Football League Players Association

As the NFL developed over the decades following the creation of the league, many NFL players began to feel that decisions made throughout the league were not taking the best interests of the players into account. With no formal group representation of the players in place, many players began to join forces to develop a group that would officially become known as the National Football League Players Association (NFLPA). By November 1956, the majority of the players in the league had officially allowed the NFLPA to represent them and negotiate with the NFL on their behalf (“History”).

While the NFLPA managed to negotiate many positive changes for the players it represented in the first decade after the creation of the group, it was not until 1968 that the NFL and NFLPA officially ratified the first NFL Collective Bargaining Agreement (CBA) (“History”). After the first CBA was put into place, the NFL-AFL merger took full effect as the leagues integrated their operations, allowing for the players associations of each league to merge under the NFLPA name and eventually file to become a union. Since the unionization of the NFLPA, professional football in the United States has been subject to a series of strikes, litigation, and new agreements as old CBAs have expired. Despite a period of turmoil for the NFLPA in the 1980s, the union today is strong and continues to work for player improvements in the NFL (“History”).

1.3. Collective Bargaining in the NFL

For over 50 years the NFL and NFLPA have engaged in collective bargaining with one another. As explained by the Bureau of Labor Statistics, collective bargaining is
a method by which representatives of employees and employers negotiate the conditions of employment to be observed for a set time period, generally resulting in a formal contract (“BLS Glossary”). In the case of the National Football League, the NFLPA represents the employees, the NFL constitutes the employers, and the contract that results from negotiations is referred to as the NFL Collective Bargaining Agreement (CBA). The collective bargaining method of negotiation allows players to band together as a group in order to use their numbers as a tool to improve player benefits and compensation. Additionally, collective bargaining agreements in the NFL ensure that the league will be able to function for a set period of time without having to address labor issues.

1.3-1. Expiration of the 2006 Collective Bargaining Agreement

In 2006 the NFL and NFLPA entered into a collective bargaining agreement that was set to run through 2012. However when the 2006 CBA was created, the two sides agreed to include a clause that would allow for either side to opt out of the agreement early if they chose to do so before November, 2008. In May, 2008, the NFL owners chose to exercise the opt out option, causing the agreement to expire after the 2010 season (Quinn). The decision to opt out was inspired by a number of reasons. First, the financial gap between the top grossing teams and the bottom grossing teams was widening, causing many owners to demand new provisions for how the NFL’s portion of league revenue would be split amongst the teams. Additionally as league wide revenue grew each year, the NFL hoped that they could force the NFLPA into a new agreement that would ultimately lead to more profit for the owners. After the opt out clause was
exercised, negotiations between the NFL and NFLPA began and the two sides attempted to come to a new agreement. However as the 2011 season approached, the inability of the NFL and NFLPA to peacefully reach an agreement led to a complicated series of litigations and a league wide lockout that threatened to prevent the season from occurring (Quinn).

1.3-2. The 2011 Collective Bargaining Agreement

After a record long 136-day lockout, the NFL and NFLPA were eventually able to come to terms and create the 2011 NFL Collective Bargaining Agreement (Davis). Over the course of the four and a half month lockout, a wide range of issues were addressed that needed to be resolved before the two sides were able to settle on an acceptable arrangement. In August, 2011, the 2011 CBA was officially put into place as the governing agreement for the NFL. The 2011 CBA, which does not contain an opt out clause, was set to extend through the 2020 season in order to ensure that the NFL would not have to revisit the CBA issue for at least ten years. Thus, the NFL ensured that fans will be able to enjoy professional football in the United States for the foreseeable future without having to worry about another lockout. Additionally, the NFL and NFLPA were both able to secure a number of changes from the old CBA that should allow for peaceful interaction over the life of the agreement.
1.4. Thesis Overview

This thesis will compare the 2006 CBA to the 2011 CBA in order to evaluate the changes made through the collective bargaining process from an actuarial perspective. The negotiated changes will be valued and a conclusion of whether the NFL or NFLPA benefitted more from these changes, financially, will be presented.

Two important factors must be considered in deciding how to compare the two agreements. First, the opt-out clause exercised in the 2006 CBA contained a provision that made the last season of the contract an “uncapped” year, meaning that no salary cap was in place. This provision caused the contractual requirements of the NFL for the 2010 season to differ greatly from 2006-2009. Thus, the 2010 season will be ignored for the purpose of representing the 2006 CBA.

Second, the extensive period of negotiation that preceded the ratification of the new CBA resulted in a number of provisions that applied only to the 2011 season in order to ensure a smooth transition into the new agreement. Therefore, the contractual provisions of the 2011 season are not indicative of the true nature of the ten year period that the new CBA applies to. Thus, the 2011 season will be ignored and the 2012 season will be used as a point of comparison for the new CBA.

In order to compare the two CBAs, I will compare the obligations and entitlements of the NFL and NFLPA for the course of one season under each of the two agreements. I will use the provisions from the old CBA that have been changed under the new CBA as they applied through the 2009 league year, and appropriately adjust them to be applied to the 2012 league year. I will then compare these provisions to the changed
provisions under the new CBA as they applied to the 2012 league year. The difference in value of these changes for the NFLPA will then be assessed and a conclusion will be made regarding which side derived more financial benefit from the creation of the new CBA.
Chapter 2

Changes in the Collective Bargaining Agreement from 2006 to 2011

The extensive negotiation process that took place prior to the ratification of the new CBA resulted in a great number of changes in the arrangement between the NFL and NFLPA. For the purpose of evaluation, these changes can be grouped into five categories: league discipline, revenue split, player health and safety, allocation of funds, and other notable provisions. Although every change played an important part in the collective bargaining process, the analysis in the following chapters focuses on how these changes impact each side, as a whole, financially. Thus the vast majority of the following discussion centers on revenue split and player health and safety, as the changes in these categories are the most relevant to the task at hand. However, league discipline is addressed in section 2.1 in order to establish important assumptions. Additionally, the allocation of funds and other notable provisions are addressed in sections 2.4 and 2.5 respectively.

2.1. League Discipline

For the 2011 CBA, many of the penalties and fines that were already in place under the previous CBA to prevent any party from violating the provisions of the agreement were increased. Disciplinary measures of this nature apply not only to the players but to the teams, owners, and commissioner as well. Furthermore, additional
disciplinary measures and fines were introduced to ensure fair play by both parties, as well as to promote player safety during games.

While these disciplinary changes are important as an insurance to each side that the provisions of the agreements will actually be upheld, the value of these changes will not be included for the purpose of this thesis. Hereafter, it will be assumed that all parties involved are exhibiting fair play and following the rules set forth under the CBA. Thus, the value of benefits for the rest of this thesis will not take into account any penalties or disciplinary measures that may apply to either the NFL or NFLPA.

2.2. Revenue Split

Perhaps the biggest point of contention throughout the negotiation process of the 2011 CBA was the method by which the NFL and NFLPA would split the revenues generated by the league. Ultimately the negotiation of this issue centered on whether the NFLPA would be entitled to a share of “Total Revenues” or “All Revenues.” While these phrases may sound the same, the rules established to define Total Revenues under the previous CBA differed greatly from the All Revenues method that the NFLPA desired for the new agreement. The Total Revenues and All Revenues calculations are explained in sections 2.2-1 and 2.2-2, the Stadium Credit is explained in section 2.2-3, and the Guaranteed Player Cost Amounts under each CBA are calculated in section 2.2-4.
2.2-1. Total Revenues

Under the 2006 CBA, the NFL and NFLPA agreed to operate under the Total Revenues system. This arrangement was named for the fact that it was based off a figure called Total Revenues (TR), a term created solely for use in the CBA that did not truly represent the entire revenue of the league. Under this arrangement, the NFLPA was entitled to a partial share of TR with the remaining revenue belonging to the NFL. TR was calculated by first taking the aggregate revenues received by the league, or to be received on an accrual basis, for a league year from a variety of sources including:

- Ticket Sales from regular season, preseason, and postseason
- TV and Radio broadcast sales and licensing
- Concessions, parking, local advertising and promotion, signage, magazine advertising, local sponsorship agreements, stadium clubs, luxury box income, internet operations, and sales of programs and novelties
- NFL Ventures L.P., the organization in charge of oversight with regards to the NFL’s business units (including media properties, sales and marketing, stadium development, strategic planning, etc.) (“New Commissioner”)
- Barter income (with received goods and services valued at 90% of fair market value)
- The value of equity instruments unconditionally received from third parties based on the performance of players in NFL games
- Stadium lease or stadium use agreement with an unaffiliated third party, as well as governmental expense reimbursements associated with such an agreement
- Recoveries under business interruption insurance policies
- Proceeds from the sale or conveyance of any right to receive any of the revenues enumerated above

The aggregate sum of these revenues was then subject to a number of “Expense Deductions,” which allowed for the NFL to reduce the overall amount of TR by deducting expenses deemed appropriate under the terms of the CBA. The NFL was allowed to make deductions for expenses related to a variety of NFL affiliated groups and...
charities as well as team operating and day-of-game expenses. Additionally the NFL could make deductions for the “Stadium Credit,” which could be attained by NFL clubs for financing the construction of a new stadium (see section 2.2-3). Last, a variety of operational activities performed by NFL clubs allowed for related expenses to be deducted from the revenues directly generated from these activities (2006 CBA).

2.2-2. All Revenues

Under the current CBA, the NFL and NFLPA operate under the All Revenues system. Much like the previous arrangement, this new method was named for the fact that the division of revenue between the NFL and NFLPA is based on a figure called All Revenues (AR). Also like TR, AR is calculated by taking the aggregate revenue generated from the list of sources enumerated in section 2.2-1 (2011 CBA). However, under the AR arrangement nearly all of the Expense Deductions previously allowed have been eliminated. In fact, while these deductions amounted to over $1,000,000,000 per league year in the last two years under the old CBA, the new Agreement sets a maximum deduction of $60 million per year (Atallah). Thus, unlike TR, AR is representative of all league revenue generated in a league year subject only to the maximum yearly deduction.

2.2-3. Stadium Credit

During negotiations, one of the major arguments for switching to the AR system centered on the inclusion of the Stadium Credit as an expense deduction. The Stadium
Credit is a very complicated calculation (see Appendix A) that helps to fund the construction of new NFL Stadiums. While the 2006 CBA allowed for the Stadium Credit to be taken as a deduction from TR, the 2011 CBA separates the Stadium Credit from the calculation of AR (2006 CBA). Instead, the Stadium Credit under the new CBA is deducted from the NFLPA’s share of AR after AR has been calculated. Additionally, a limit of 1.5% of AR is established as the maximum Stadium Credit for a league year (2011 CBA). The deduction of the Stadium Credit will be further addressed in section 2.2-4.

2.2-4. Guaranteed Player Cost Amount

The first change to the CBA that will be valued is the Guaranteed Player Cost Amount to which the NFLPA is entitled. The Player Cost Amount consists of two components: Salary and Player Benefit Costs. Salary is defined as the “compensation in money, property, investments, loans, or anything else of value to which an NFL Player…or his Player Affiliate is entitled in accordance with a Player contract, but not including benefits,” (2011 CBA). Player Benefit Costs are calculated as the aggregate sum of payments for a wide range of different benefits covering almost all other forms of compensation that the NFLPA is entitled to under the CBA (see Appendix B for list of Benefits); the exceptions to this are presented in section 2.3 (2011 CBA).

Under the new CBA the NFLPA has a Guaranteed Player Cost Percentage of 47% of All Revenues for the 2012 league year, meaning that the Player Cost Amount can be no less than 47% of AR. In 2012 the NFL generated an estimated $9.5 billion (“Sports
Industry Overview”). As stated in section 2.2-2, All Revenues is the measure of all of the revenue generated in an NFL league year subject only to the maximum allowable deduction of $60 million. Thus the NFLPA was entitled to a minimum of 47% of $9.44 billion, or $4,436,800,000, for the total Player Cost Amount in 2012.

In addition to a provision for the minimum Player Cost Percentage, the 2011 CBA sets the maximum Player Cost Percentage for the 2012 league year as 48% of AR. Thus, if no deductions were taken, the maximum Player Cost Amount that the NFLPA could have been entitled to under the 2011 CBA was 48% of $9.5 billion, or $4,560,000,000 in 2012.

Under the current arrangement, the Stadium Credit is deducted from the Player Cost Amount after it has been calculated. However, the deduction of the stadium credit cannot cause the overall Player Cost Percentage to fall below 47% of AR. Thus, when considering the minimum amount that the NFLPA is entitled to, the Stadium Credit does not affect the calculation. Likewise, when considering the maximum amount that the NFLPA could receive, it must be assumed that there are no deductions so the Stadium Credit can be ignored (2011 CBA).

While the calculation of Player Cost Amount is simple under the provisions of the 2011 CBA, the equivalent calculation is more complicated when applying the provisions from the 2006 CBA for two reasons. The first complication that arises when calculating the equivalent of the Player Cost Amount for the old CBA is that, unlike AR, TR is no longer calculated by the NFL. Instead, an appropriate estimate of TR based on the experience from 2006-2009 must be established. In order to accomplish this task, the TR/TR* ratios presented in Table 2-1 for years 2006-2009 will be used.
In Table 2-1, TR represents Total Revenues and TR* represents the entire revenue of the NFL without any expense deductions. Since there does not appear to be a clear trend, the mean of the TR/TR* ratios for 2006-2009, as shown in column 4 of Table 2-1, will be applied to the 2012 league year to find TR. Taking the average of these ratios yields a TR/TR* ratio of .8915. By multiplying this ratio with the NFL Revenue from 2012, $9.5 billion, a TR of $8,469,250,000 is estimated.

The second complication that arises when calculating Player Cost Amount under the provisions of the 2006 CBA is that under the old agreement the NFLPA did not have a Guaranteed Player Cost Percentage. Instead, both Salary and Player Benefit Costs were guaranteed separately with 50% of Total Revenues guaranteed for Salary and 6% of TR guaranteed for Player Benefit Costs. Thus, the equivalent of the minimum Guaranteed Player Cost Percentage as it is understood in the new CBA was 56% of TR under the old agreement.
Agreement (2006 CBA). However, the actual percentage of TR received by the NFLPA during the 2006-2009 seasons is shown in Table 2-2.

Table 2-2. Players' Percentage of "Total Revenues" Since 2000

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>61.7%</td>
</tr>
<tr>
<td>2001</td>
<td>57.1%</td>
</tr>
<tr>
<td>2002</td>
<td>56.1%</td>
</tr>
<tr>
<td>2003</td>
<td>54.3%</td>
</tr>
<tr>
<td>2004</td>
<td>57.0%</td>
</tr>
<tr>
<td>2005</td>
<td>56.1%</td>
</tr>
<tr>
<td>2006</td>
<td>58.4%</td>
</tr>
<tr>
<td>2007</td>
<td>58.0%</td>
</tr>
<tr>
<td>2008</td>
<td>57.7%</td>
</tr>
<tr>
<td>2009</td>
<td>57.1%</td>
</tr>
</tbody>
</table>


As illustrated by Table 2-2, the percentage of TR received by the NFLPA decreased each year over the course of the 2006 CBA. This is explained by the fact that each year experienced an increase in the amount of allowable expense deductions taken by the NFL (Vrooman). By subtracting the percentage of TR received by the players in each year from the percentage received in the prior year, a yearly decrease in the percentage of TR received by the NFLPA can be found for each year under the old CBA. Taking the mean of the yearly decrease in percentage of TR received by the NFLPA over the 2006-2009 period yields an annual average decrease of \((.4\% + .3\% + .6\%) / 3\), or
.433%. Applying this trend through the 2012 season, the NFLPA would have received the minimum 56% of TR for Player Cost Amount in the 2012 league year. Thus the Player Cost Amount under the provisions of the old CBA for the 2012 league year would have been 56% of $8,469,250,000, or $4,742,780,000.

2.3. Player Health and Safety

As discussed in section 2.2-4, Player Benefit Costs encompass nearly all of the monetary benefits guaranteed to the NFLPA that are not considered salary compensation. Thus, the vast majority of player benefits regarding health and safety are accounted for in the Player Cost Amount calculated in section 2.2-4. However under the new CBA, two major benefits have been added that are not counted as a Player Benefit Cost: the Legacy Fund and the Joint Contribution Amount. These two benefits are presented in sections 2.3-1 and 2.3-2 respectively. Additionally, a short discussion of non-monetary changes regarding health and safety is presented in section 2.3-3.

2.3-1. Legacy Fund

In addition to improving benefits for current NFL players, a major topic of concern for the NFLPA during the negotiation process of the 2011 CBA was the improvement of benefits for former NFL players (Marvez). This concern ultimately materialized in the new CBA in the form of the Legacy Benefit. Entirely new and commonly referred to as the Legacy Fund, this benefit calls for $620 million to be paid to
retired players over the course of the 2011 CBA. Of this benefit, 49% will count as a Player Benefit Cost, which is included in the Player Cost Amount. However, the remaining 51% of the Legacy Benefit will be paid by the NFL outside of the Player Cost Amount. Thus the NFLPA is entitled to an additional 51% of $620 million, or $316.2 million, of league revenue over the course of the ten year agreement, which translates to $31,620,000 for the 2012 league year (2011 CBA).

2.3-2. Joint Contribution Amount

In addition to the Legacy Benefit to be directly paid to NFL retirees, the 2011 CBA established funding for a number of miscellaneous programs in the form of the Joint Contribution Amount. For the 2012 league year, the Joint Contribution Amount was set at $55 million to be allocated for three different purposes that the NFL and NFLPA deemed necessary. First, the NFLPA desired benefits for retirees on top of the Legacy Fund. Thus, $22 million was allocated for “healthcare or other benefits, funds, or programs for retired players,” (2011 CBA). Unlike the Legacy Benefit, the money dedicated to retirees from the Joint Contribution Amount was not set to be received directly by former players but was instead designed to provide additional services and benefits.

The second part of the Joint Contribution Amount addressed growing concerns regarding the health and safety of NFL players. Following a Congressional hearing in 2009 on football-related head injuries, increased focus on concussions and neurological damage prompted additional funding for medical research (Hanna). Thus, $11 million of
the Joint Contribution Amount was allocated for the purpose of medical research with the intention of making improvements in player health and safety (2012 CBA).

The remaining $22 million of the Joint Contribution Amount was dedicated to NFL charities and Youth Football (2012 CBA). Unlike the $22 million for retired players and the $11 million for medical research, this portion of the Joint Contribution Amount is a benefit that does not serve the NFLPA. Thus the last $22 million will not be included in the calculation of the total amount that the NFLPA was entitled to under the 2011 CBA. Therefore, the NFLPA was entitled to $33 million from the Joint Contribution Amount in the 2012 league year.

2.3-3. Additional Player Health and Safety Changes

In addition to the Legacy Benefit and the Joint Contribution Amount, the NFLPA negotiated a number of other changes for the purpose of improving player health and safety. Provisions added to the CBA to prevent player injuries include:

- Drastic reduction of the number of padded regular season practices to fourteen
- Padded practices limited to three hours
- Length of offseason workout period reduced from fourteen weeks to nine weeks
- Amount of contact allowed in offseason training reduced
- Amount of players on team Active List increased by one

(2006 CBA, 2011 CBA)

In addition to provisions to prevent injury, the NFLPA negotiated improvements to benefits that were already in place. Many of the benefits provided to players under the 2006 CBA were extended under the 2011 CBA, and new benefits were added for previously unaddressed issues. Benefit changes under the 2011 CBA include:
- Improved disability benefits
- Coverage extended under the NFL’s 88 Plan to include coverage for Parkinson’s Disease
- Increased maximum disability coverage
- Neuro-Cognitive Disability Benefit introduced for players suffering from permanent cognitive impairment
- Increased maximum life insurance amount
- Increased injury protection guarantees

(2006 CBA, 2011 CBA)

According to the NFLPA, the increased benefits under the new CBA will be funded by about $250 million of contributions from the NFL over the next six years, or about $42 million per year (“Former Player FAQs”). However, while these changes were a major victory for the NFLPA, the funding for the benefits enumerated in this section is included in the Player Benefit Costs and Joint Contribution Amount. Thus, these changes have already been accounted for in the calculations of the Player Cost Amount in section 2.2-4.

2.4. Allocation of Funds

One of the driving forces for exercising the opt-out clause provided in the 2006 CBA was the fact that the league was experiencing a large disparity between high-revenue teams and low-revenue teams. Under the new CBA, the way in which revenue is shared amongst the teams in the NFL was changed in order to better serve low-revenue teams (Kaplan). While it may seem unfair for teams in high-revenue markets to be forced to share revenues with other teams, it is important to consider that the high-revenue teams would not be making as much money if the other teams did not exist as opponents. With this in mind it is clear that every team in the NFL is important for generating revenue,
explaining why a revenue sharing system is warranted. However, while the revenue sharing arrangement amongst NFL teams was an important part of the new CBA, the arrangement is insignificant for the purpose of this thesis because the NFL is treated as a single entity. Thus, the allocation amongst the teams does not affect the total amount that the NFL is entitled to under the 2011 CBA.

Likewise, many changes were made to the CBA that affect the way funds designated to the NFLPA are allocated amongst active players. Similarly, since this thesis treats the NFLPA as a single entity, the manner in which funds are allocated amongst the players does not affect the overall amount that the NFLPA is entitled to. Despite this fact, the allocation of funds amongst players is briefly addressed below because it plays an important role in understanding why the 2011 CBA was ultimately ratified.

In the 2009 league year, the total amount of compensation for rookies was $1.2 billion, nearly 30% of the total salary cap for the year (Murphy, Associated Press). During negotiations, the NFLPA contended that less money should be paid to rookie players who have not proven themselves in the NFL so that more money can be received by proven veterans who have demonstrated their impact to the league (Farrar). As a result, a maximum limit was placed on total rookie compensation to allow more funds to be allocated for the compensation of veteran players. For the 2012 league year, total rookie compensation was limited to just under $880 million, less than 23% of the total salary cap (2011 CBA). Additionally, the minimum salary for veteran players, based on their number of seasons played, was substantially increased. The significance of the changes in this section will be addressed in chapter 3.
2.5. Other Notable Provisions

The last two provisions that must be addressed do not fall into any of the previously discussed categories. Like the provisions discussed in section 2.4, the provisions in this section have no effect on the total value of the benefits received by the NFL and NFLPA but are important for understanding why the 2011 CBA was ultimately ratified.

First, an important change to note is that the new CBA eliminated judicial oversight of the NFL. Instead, issues between members of the NFLPA and the NFL are handled by an agreed upon Impartial Arbitrator, avoiding costly and time consuming litigation.

Finally, during negotiations the NFL expressed interest in extending the regular season from 16 to 18 games in order to increase revenue. The extended schedule was strongly opposed by the NFLPA for player safety reasons, and it was ultimately decided that the schedule would remain at 16 games. As a provision of the 2011 CBA, it was explicitly stated that “The League and/or Clubs may increase the number of regular season games per Team above the standard of sixteen (16) only with NFLPA approval, which may be withheld at the NFLPA’s sole discretion,” (2011 CBA). Although this provision does not necessarily constitute a change from the old CBA, the prevalence of the 18 game debate during the negotiation of the CBA and the ultimate decision to dismiss the idea warrant mentioning the provision because it was generally viewed as a victory for the NFLPA.
Chapter 3

Conclusion

With all of the necessary provisions assessed, a final conclusion can be made on whether the NFL or NFLPA benefitted more from the changes in the CBA. The financially relevant benefits entitled to the NFLPA under each of the CBAs are summarized in Table 2-3

<table>
<thead>
<tr>
<th></th>
<th>2011 CBA Minimum</th>
<th>2011 CBA Maximum</th>
<th>2006 CBA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Player Cost Amount</td>
<td>$4,436,800,000</td>
<td>$4,560,000,000</td>
<td>$4,742,780,000</td>
</tr>
<tr>
<td>Legacy Benefit</td>
<td>$31,620,000</td>
<td>$31,620,000</td>
<td>$31,620,000</td>
</tr>
<tr>
<td>Joint Contribution</td>
<td>$33,000,000</td>
<td>$33,000,000</td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$4,501,420,000</td>
<td>$4,624,620,000</td>
<td>$4,742,780,000</td>
</tr>
</tbody>
</table>

As illustrated by Table 2-3, under the provisions of the 2011 CBA the NFLPA was guaranteed $4,501,420,000 in total compensation for the 2012 league year, and was eligible for a maximum total of $4,624,620,000.

Under the provisions of the 2006 CBA, the NFLPA would have been entitled to $4,742,780,000 for the 2012 league year. Thus, the 2006 CBA provisions would have entitled the NFLPA to over $200 million more than was guaranteed under the 2011 CBA. Furthermore, even the maximum amount the NFLPA could have received under the 2011 CBA would still have fallen over $100 million shy of the amount that the NFLPA would
have been entitled to under the 2006 CBA provisions. It is clear from the numbers presented that the NFL was able to substantially reduce financial obligations to the NFLPA by creating the new CBA.

While the NFLPA’s ratification of the 2011 CBA appears to be a negative financial decision, a closer look at the allocation of the guaranteed funds amongst the players can help explain why the NFLPA approved. Due to the nature of the NFLPA, the amount of veteran and retired players represented is much larger than the amount of rookie players. As explained in section 2.4, the new CBA calls for a transfer of funds from unproven rookies to established veterans by limiting total rookie compensation. Also, retirees received an especially substantial increase in the portion of money allocated to them due to the Legacy Benefit and Joint Contribution Amount. In fact, while total rookie compensation dropped from about 30% of the salary cap to 23% of the salary cap under the new agreement, a decrease of about $270 million, the total guaranteed compensation to the NFLPA decreased by only $4,742,780,000 - $4,501,420,000, about $240 million. Therefore, both the veterans and retired players came out better under the new agreement while the rookies came out significantly worse. Additionally, the decrease in rookie compensation provides enough money to fund the increased benefits discussed in section 2.3. Thus, the decision to ratify the new CBA was influenced by the fact that the core membership of the NFLPA benefitted from the new provisions, albeit at the expense of younger players.

Though the NFLPA’s approval can be understood by recognizing the veterans winning and the rookies losing, the total financial implications of the new agreement remain unchanged when considering the NFLPA as a whole. Although the NFLPA
achieved additional player health and safety changes, as well as the dismissal of an 18 game season, the increased protection for players from these benefits cannot erase the $200 million that the NFLPA as a whole lost in guaranteed money. When all is said and done, the NFL came out the winner under the 2011 NFL CBA.
Appendix A – Stadium Credit

Section 4. Stadium Credit:

(a) For each League-approved stadium project beginning on or after the effective date of this Agreement, there shall be a credit of fifty percent (50%) of the private cost (whether incurred by a Club, Club Affiliate, or the League) to construct or renovate the stadium, or seventy-five percent (75%) of such cost for stadium construction or renovation in California, which cost shall include financing costs, amortized over a maximum of 15 years using an agreed-upon rate based on the NFL’s long-term borrowing cost to fund or support stadium construction, beginning in the League Year before such new stadium opens. The aggregate credit for all such approved projects for each League Year shall be part of the “Stadium Credit.” For purposes of this Subsection, the private cost shall not include any revenues that are excluded from AR related to the project pursuant to Section 1(a)(vi)(1), 1(a)(vii)(1) or 1(a)(viii)(1) above.

(b) In each League Year, the Stadium Credit shall also include an amount equal to 70% of:

(i) Any PSL revenues excluded from AR pursuant to Subsection 1(a)(vi)(1) above, net of amounts specified in Subsection 1(a)(i)(1) above, and amortized over a maximum of 15 years with Interest, beginning in the League Year before the new stadium opens or the renovation is completed;

(ii) Any PSR revenues excluded from AR pursuant to Subsection 1(a)(vii)(1) above, net of amounts specified in Subsection 1(a)(i)(1) above, beginning in the League Year in which the new stadium opens or the renovation is completed;

(iii) Any naming/cornerstone revenues excluded from AR pursuant to Sub-section 1(a)(viii)(1) above, with any lump-sum payments amortized over the life of the naming/cornerstone rights agreement up to a maximum of 15 years, beginning in the League Year the new stadium opens or the renovation is completed.

(c) The Stadium Credit shall also include 50% of the cost of capital expenditures incurred during such League Year in any stadium that relate in any way to the fan experience at such stadium (regardless of when the stadium was constructed or renovated), amortized over five years (except for video boards, which shall be amortized over seven years), with Interest, such costs to be verified as capital expenditures by the Local Accountants and the Accountants using GAAP.

(d) Notwithstanding the foregoing, absent NFLPA approval, the Stadium Credit may not equal an amount greater than 1.5% of Projected AR or AR for that League Year (the “Stadium Credit Threshold”).

(e) If the sum of the amounts described in Subsections (a)–(c) above would result in a Stadium Credit that would exceed the Stadium Credit Threshold, then the Stadium Credit shall be an amount equal to the Stadium Credit Threshold, unless the parties have agreed otherwise.

(f) Cap Effect Guarantee. (i) In the event that the Stadium Credit was initially calculated to exceed the Stadium Credit Threshold, then for any individual stadium for which PSL, PSR, naming/cornerstone revenues were excluded from AR for that League Year, and to the extent that such revenues were excluded, and which excluded revenues were not included in the calculation determining that the Stadium Threshold had been reached, the “Incremental Cap Effect” from such stadium shall exceed the “Exclusion Cap Effect” by 125%. In the event that the Incremental Cap Effect does not exceed the Exclusion Cap Effect by 125% (a “Shortfall”), then an additional amount shall be imputed into AR sufficient to eliminate the Shortfall in the Salary Cap.

(ii) For purposes of this Subsection, “Exclusion Cap Effect” equals 40% of the amount of revenue excluded from AR. “Incremental Cap Effect” equals 40% of the “Incremental AR” from
the stadium in question. “Incremental AR” means the difference between the AR generated from the stadium in question as compared to the “Base AR.” “Base AR” means the AR generated from such stadium or its predecessor in the year prior to the completion of the construction or renovation (the “Base Year”); if PSR revenues are being excluded from AR for such stadium, Base AR shall not include any PSR revenues from the Base Year.

(iii) For example, if in the 2018 League Year the Stadium Credit is calculated initially to be more than 1.5% of AR (i.e., to have reached the Stadium Credit Threshold), and if Stadium A had an amortized PSL exclusion of $20 million that was not part of the Stadium Credit Threshold, then the Exclusion Cap Effect of Stadium A would be $8 million (40% of $20 million). Under this Subsection, for this League Year, the League would “guarantee” that the Incremental Cap Effect from Stadium A would not be less than $10 million (e.g., 125% of $8 million). If the actual Incremental AR from Stadium A resulted in an Incremental Cap Effect of $8 million, then $5 million in additional AR would need to be imputed for the 2018 League Year to resolve the $2 million Shortfall so that the net Cap Effect from Stadium A would be $10 million. (If, on the other hand, the $20 million PSL exclusion was included in the Stadium Credit (that is, if 70% of $20 million is part of the 1.5% Stadium Credit being taken for the 2018 League Year), then Stadium A is not subject to the Cap Effect Guarantee, but any PSL exclusions for other stadiums not included in the Stadium Credit would be subject to the Cap Effect Guarantee. For the avoidance of doubt, this calculation will be done every year such excluded revenues are subject to the Cap Effect Guarantee.)

(g) For purposes of this Section, for any PSL revenues subject to the Cap Effect Guarantee the amortization period for the exclusion shall begin in the League Year in which the new or renovated stadium opens.

(h) For purposes of this Section, amounts shall count toward the Stadium Credit Threshold on a chronological basis (e.g., the portion of the Stadium Credit associated with the first League-approved project after the effective date of this Agreement shall be the first amounts included in the calculation of the Stadium Credit Threshold). Within each project, first the amount pursuant to Subsection (a) above shall be calculated, followed by any amount attributable to an AR exclusion as described in Subsection (b).

(i) Notwithstanding the foregoing, with respect to any stadium project for Los Angeles (or the immediately surrounding area), the NFL has the right to elect not to include such project in the calculation of the Stadium Credit. If the NFL exercises this right, the parties shall negotiate in good faith the appropriate amount of any credit related to such project separate and apart from the provisions of this Section.

**This excerpt is taken from Article 12 of the 2011 NFL Collective Bargaining Agreement. For further understanding, see (2011 CBA)**

Appendix B – Player Benefit Costs

Section 2. Benefits:

(a) “Benefits” and “Player Benefit Costs” mean the aggregate for a League Year of all sums paid (or to be paid on a proper accrual basis for a League Year) by the NFL and all NFL Teams for, to, or on behalf of present or former NFL players, but only for:

(i) Pension funding, including the Bert Bell/Pete Rozelle NFL Player Retirement Plan (as described in Article 53) and the Second Career Savings Plan (as described in Article 54);

(ii) Group insurance programs, including, life, medical, and dental coverage (as described in Article 59 or as required by law), and the Disability Plan (as described in Article 61);

(iii) Injury Protection (for the 2011–2015 League Years only);

(iv) Workers’ compensation, payroll, unemployment compensation, social security taxes, and contributions to the fund described in Article 30, Section 4;

(v) Preseason per diem amounts (as described in Sections 3 and 4 of Article 23) and regular season meal allowances (as described in Article 34);

(vi) Expenses for travel, board and lodging for a player participating in an offseason workout program in accordance with Article 13, Section 6(e)(iv)(3);

(vii) Payments or reimbursements made to players participating in a Club’s Rookie Orientation Program (as described in Article 7);

(viii) Moving and travel expenses (as described in Article 36);

(ix) Postseason pay (as described in Articles 37 and 38) and salary paid to Practice Squad players pursuant to a Practice Squad Contract during the postseason, unless the Practice Squad Player Contract is executed or renegotiated after December 1 for more than the minimum Practice Squad salary, in which case all salary paid to such a Practice Squad player during the postseason will be counted as Salary.

(x) Player medical costs (i.e., fees to doctors, hospitals, and other health care providers, and the drugs and other medical cost of supplies, for the treatment of player injuries), but not including salaries of trainers or other Team personnel, or the cost of Team medical or training equipment (in addition, the amount of player medical costs included in Benefits may not increase by more than ten percent (10%) each League Year). Subject to the foregoing, player medical costs shall include one-third of each Club’s expenses for tape used on players and one-third of each Club’s player physical examination costs for signed players (player physical examination costs relating to the Combine or for Free Agents whom the Club does not sign are not included in Player Benefit Costs);

(xi) Severance pay (as described in Article 60);

(xii) The Player Annuity Program (as described in Article 55);

(xiii) The Minimum Salary Benefit (as described in Article 27);

(xiv) The Performance Based Pool (as described in Article 24), and further provided that there shall be no Performance Based Pool for the 2011 League Year;

(xv) The Tuition Assistance Plan (as described in Article 56);

(xvi) The Gene Upshaw NFL Players Health Reimbursement Account (as described in Article 63);

(xvii) The “88 Benefit” for former players suffering from dementia (as described in Article 58);

(xviii) The Rookie Redistribution Fund (as described in Article 7), to the extent that any portion of that Fund is not being used to offset the allocated Benefit Cost of the Legacy Benefit (as described further in Subsection (xix) below), and further provided that there shall be no Rookie Redistribution Fund for the 2011 League Year;
(xix) The Legacy Benefit (as described in Article 57) and further provided that of the $620 million aggregate contribution to the Legacy Benefit over the term of this Agreement, only 49% shall count as a Player Benefit Cost, and that the parties shall agree on the allocation of this Player Benefit Cost across the League Years covered by this Agreement, and further provided that the parties may not allocate any portion of this Player Benefit Cost to the 2011 League Year;

(xx) The Neuro-Cognitive Disability Benefit (as described in Article 65); and

(xxi) Beginning in the 2015 League Year, the Long-Term Care Insurance Program (as described in Article 63).

(b) If Benefits that are not currently taxed are subject to a new or materially different federal or state excise tax, the parties will negotiate in good faith about the appropriate adjustment, if any, in Benefits to account for such additional tax. In agreeing to this Section, neither party waives any right to contend that such tax amounts would meet or would not meet the definition of a Player Benefit Cost set forth in this Agreement, and this Section shall not be referred to in any dispute regarding such issue.

(c) Without limitation on any other provision of this Agreement, Benefits will not include (1) salary reduction contributions elected by a player to the Second Career Savings Plan described in Article 54; (2) any tax imposed on the NFL or NFL Clubs pursuant to section 4972 of the Internal Revenue Code for the Bert Bell/Pete Rozelle NFL Player Retirement Plan, and (3) attorneys’ fees, costs, or other legal expenses incurred by Clubs in connection with workers’ compensation claims of players. Benefits for a League Year will be determined by adding together all payments made and amounts properly accrued by or on behalf of the NFL and all NFL Clubs for the above purposes during that League Year, except that Benefits for pension funding and the Second Career Savings Plan will be deemed to be made in a League Year for purposes of this Article if made in the Plan Year beginning in the same calendar year as the beginning of such League Year.

**This excerpt is taken from Article 12 of the 2011 NFL Collective Bargaining Agreement. For further understanding, see (2011 CBA)**

Appendix C – Definitions

All Revenues (AR) – All of the League and Team revenues that are included within the definition of All Revenues, as set forth in Article 12 of the 2011 NFL Collective Bargaining Agreement (2011 CBA)

Guaranteed Player Cost Percentage – The minimum percentage of revenues designated for the Player Cost Amount

Player Benefit Cost - The aggregate for a League Year of all sums paid (or to be paid on a proper accrual basis for a League Year) by the NFL and all NFL Teams for, to, or on behalf of present or former NFL players, only for the benefits enumerated in Appendix B (2011 CBA)

Player Cost Amount – The total amount spent league wide on players through Salary compensation and Player Benefits, as calculated pursuant to the rules set forth in Article 12 of the 2011 NFL Collective Bargaining Agreement (2011 CBA)

Salary – Any compensation of money, property, investments, loans, or anything else of value that a Club pays to, or is obligated to pay to, a player or Player Affiliate, or is to be paid to a third party at the request of and for the benefit of a player of Player Affiliate, during a league year, as calculated in accordance with the rules set forth in Article 13 of the 2011 NFL Collective Bargaining Agreement (2011 CBA)

Total Revenues (TR) - All of the League and Team revenues that are included within the definition of Total Revenues, as set forth in Article XXIV of the 2006 NFL Collective Bargaining Agreement (2006 CBA)
BIBLIOGRAPHY


ACADEMIC VITA

Zachary H Altman
zha5005@psu.edu

Actuarial Standing

Society of Actuaries Exam P – Passed November 2011
Society of Actuaries Exam FM – Passed February 2012

Education

The Pennsylvania State University, Class of Spring 2013
Bachelor of Science in Actuarial Science
Honors in Actuarial Science
Dean’s List Recognition, Fall 2009 – Fall 2012

Professional Experience

Actuarial Analyst at Chartis (May 2012 – August 2012)

• Worked as a member of a small group handling AIG’s responsibilities as a servicing carrier for AIPSO.
• Completed a 20-state certification study for AIPSO, deciding loss development factors and setting reserves.
• Worked in a small group responsible for Chartis’ Asbestos & Pollution line of insurance.
• Balanced loss triangles to discover miscoded claims and ensure a smooth transition to a new reporting system.