



Pricing Right

Analysis of Optimal Ticket Pricing Strategy in the NFL

MIT First Pitch Competition

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Objectives and Agenda

Objectives

- Identify the factors that NFL teams should consider when determining the optimal pricing strategy
- Develop methodology to determine how many general admission seats, club seats and suites its stadium should have
- Determine the pricing structure and number of price points team should offer to ensure:
 - Every seating product sold
 - Every team is maximizing revenue
- Prove how methodology selected can applied to Los Angeles Bulldogs, Portland Cobras, Oklahoma City Knights, and San Antonio Sharks

Agenda

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NFL Industry Overview

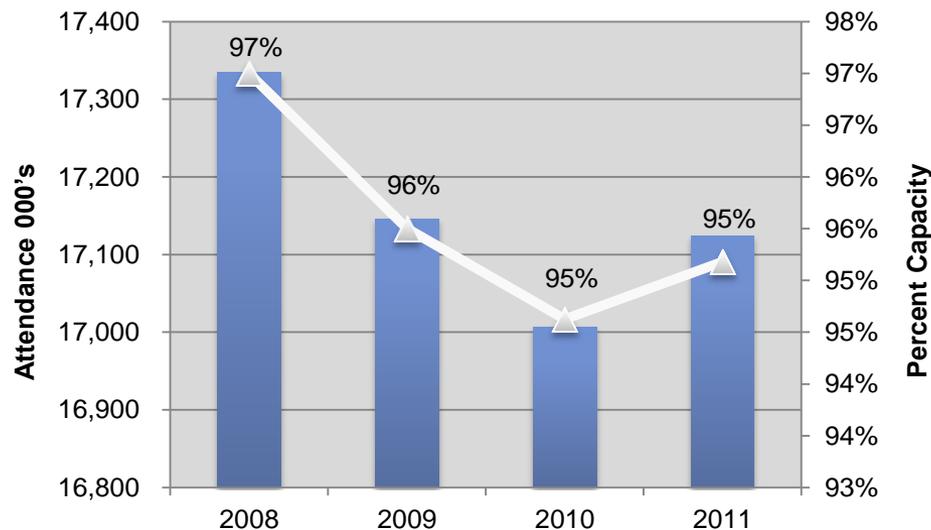
The NFL has consistently shown high attendance figures and continues to be the most popular professional sports league in the United States, with over 17 million tickets sold each year

Key Details

- The NFL is the most popular and profitable professional league in the U.S
 - 36% of sports fans prefer the NFL with baseball coming in second at 13% each¹
 - NFL 2010 League Revenues of \$9B, compared to the \$7B, \$4B, and \$3B of the MLB, NBA, and NHL Respectively²
- Ticket Prices continue to rise due to the completion of expensive stadiums
- Attendance has declined, but overall revenue continues to grow due to fantasy football and TV contracts in excess of \$5B
- Comcast “Redzone”, Direct TV, lower HD TV prices, and increased numbers of sports bars are major threats to NFL ticket revenues

NFL Averages: 2008-2011 ^{3,4}	2008	2009	2010
Avg. Ticket Price	\$72	\$75	\$76
% Change	-	+4%	+2%
Average Team Revenue	\$240 M	\$251 M	\$261 M
% Change	-	+4%	+4%

NFL Attendance and Capacity by Year (ESPN.com)



While the NFL has maintained their top position in the marketplace, there is still opportunity to grow revenue and attendance through more sophisticated ticket pricing

1. <http://sportsillustrated.cnn.com/2012/football/nfl/super-bowl-2012/02/04/nfl.popularity.ap/index.html>

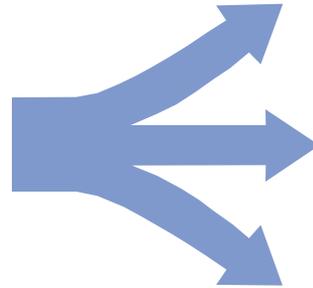
2. <http://www.plunkettresearch.com/sports-recreation-leisure-market-research/industry-statistics>

3. <http://www.forbes.com/sites/kurtbadenhausen/2011/09/07/the-nfls-most-valuable-teams/>

4. http://bizofffootball.com/index.php?option=com_content&view=article&id=516:inside-the-2009-forbes-nfl-franchise-valuations&catid=44:articles-and-

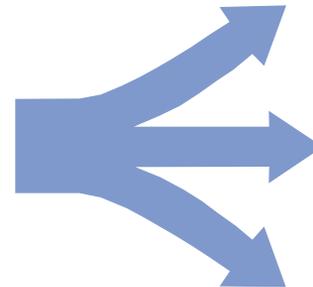
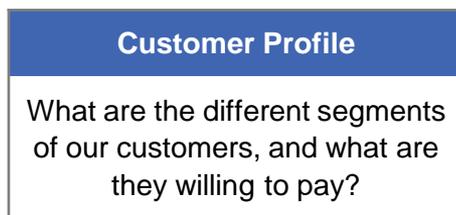
Key Factors – Assessing the Population

To capitalize on revenue opportunities, we first must look at the aggregate demand of sport-going fans in a particular market. Finding the size and scope of this audience will help frame our ticket pricing strategy.



- How densely populated is the metropolitan area?
- What is the disposable income of our community?
- What are the socioeconomic details of our community (age, nationality, etc.)

Knowing the relative size of the market is a start, but the next step involves understanding the breakdown of this market in order to better understand your pricing options.



- What are our central customer segments?
- How big are each of these segments, and what is their willingness to pay (WTP) for each?
- What do they expect to pay or what have they historically paid?

These factors are critical for establishing a baseline understanding, but they are relatively stagnant and cannot be easily changed.

Additional Key Factors – Qualitative

A great market isn't enough to make a terrible product a success, however. A variety of other more fluid factors should be considered when determining price, and are factors that can change more quickly over time than demographics

Quality of On-Field Product

- How successful is the team this year? Historically?
- How big are the team's stars? Are they "fun" to watch?
- Who is the opponent, and what is the demand for them?
- When during the season is the game?

Alternative Options

- What are a sports fan's other local options?
 - Other professional and college teams in area
- What are alternative entertainment options?
- How much do alternative options cost?

Quality of Gameday Experience

- How accessible is the stadium for fans?
 - Where is it located? How far is the commute?
- How is the atmosphere/crowd in the stadium?
- How are the stadium's amenities (concessions, customer service, architectural aesthetics, etc.)?

Seat Value

- How much do seats cost?
- What types of seats (and how many) are available at each price?
- How are the sightlines / view from each seat?
- What is the price on the secondary market (if applicable)?

These factors are all more fluid and should be closely monitored by the ticket staff. Prices should then be adjusted based on these factors.

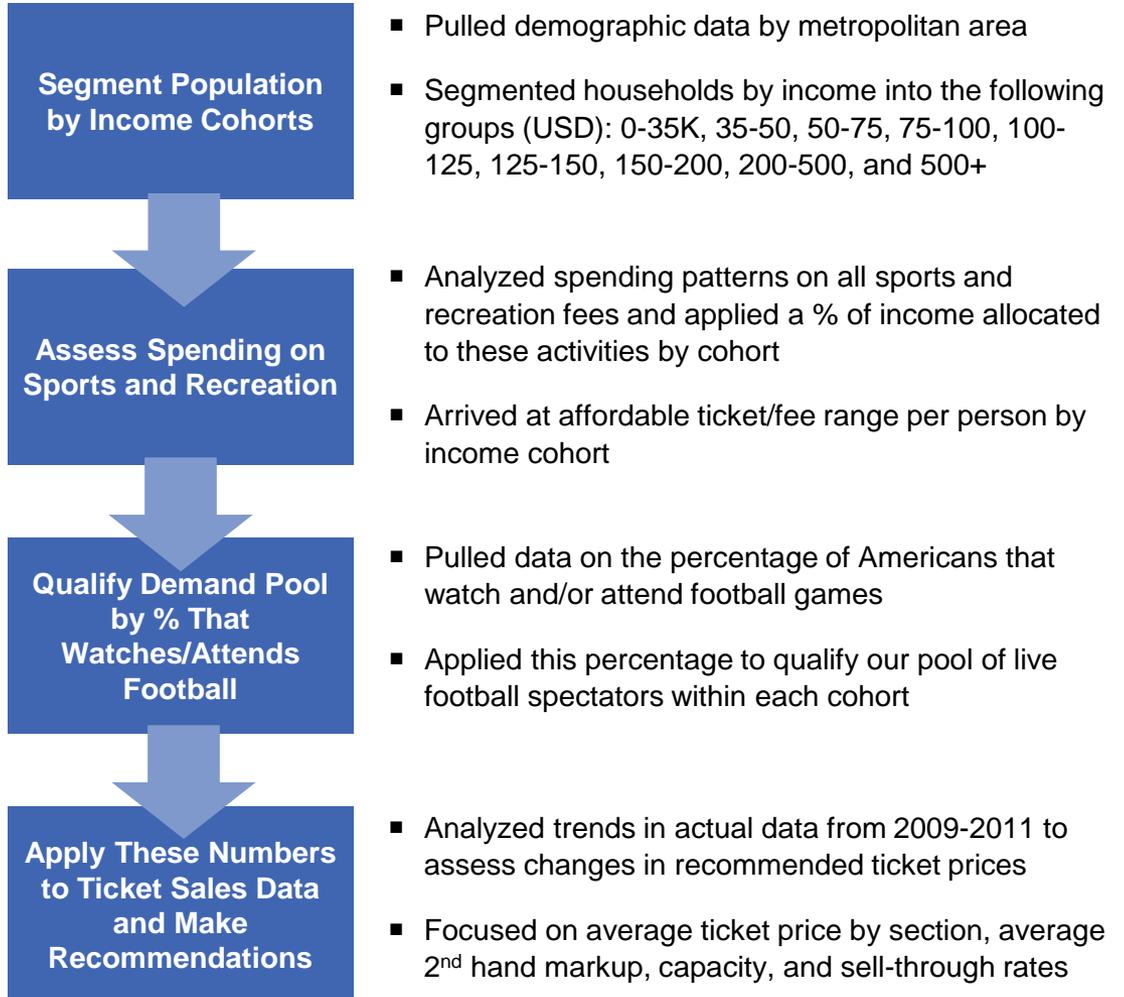
Our Approach and Methodology

In creating our methodology, we first outlined a scope for what we could effectively quantify and recommend. We then operationalized this scope through available data.

Scope and Assumptions

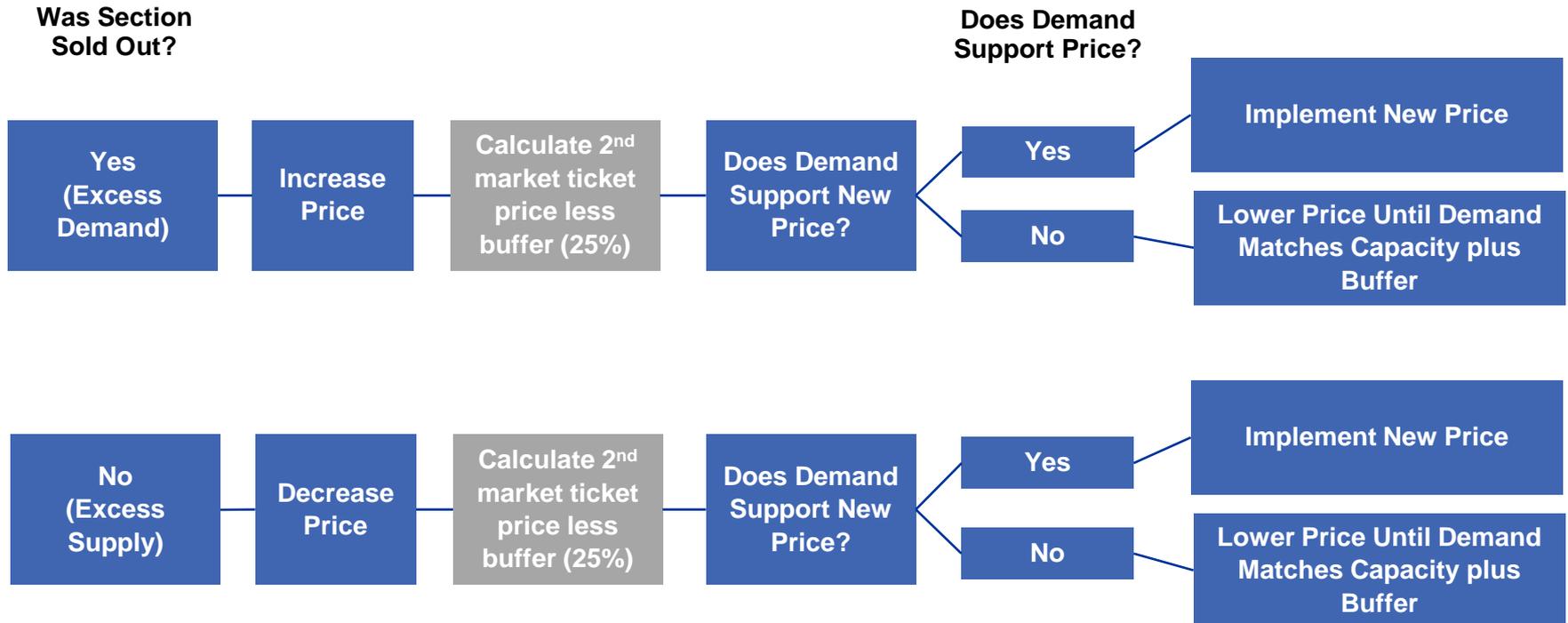
- A variety of factors impact ticket prices, as we have laid out, but not all could be in scope
- We focused our scope on factors that we could readily measure for this set period of time
- We used two primary sources to guide our recommendations
 - Demographic data for each city
 - 2009-2011 data on ticket sales for these 4 teams
- Quantitative recommendations to price and capacity increases/decreases were limited to general admission and club seats, as the population of suite owners is more difficult to assess without further investigation
- Additional qualitative improvements were captured for further consideration

Methodology



Methodology Continued: Pricing Recommendations

Deciding what prices to change and by how much was the next step. By stadium section (GA vs. Club), we modeled a decision trees and used quantitative data to inform these decisions



Additional Notes

- Buffer implemented for secondary market ticket premium and season ticket waitlist (see Excel model for details)
- Capacity increases/decreases are evaluated on a case by case basis (see team slides) based on a range of factors



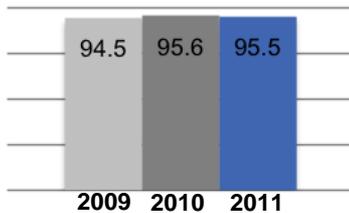
Pricing Breakdown: Los Angeles Bulldogs

The Bulldogs have exhibited strong performance in the large LA market, but opportunities to increase revenue are significant, particularly in the General Admission and Club sections

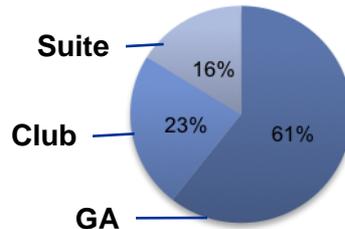
Current Snapshot

2011 Record: 12-4	GA	Club	Suites
Avg. Ticket Price	\$89	\$317	\$124K
% Sold (Capacity)	100% (65K)	71% (10K)	71% (175)
REVPAS	\$89	\$223	\$89K

Ticket Revenue (MM)



2011 Revenue % by Section



Additional Details

- In 2011, 15,000 fans were on the season ticket waitlist
- While GA revenue have grown each year, club and suite sales have decreased (resulting in zero growth)
- The price of 2nd hand general admission tickets has increased each year (75% above face value in 2011)
 - Club seats have negligible markup on 2nd hand market

BWD Methodology

- Applying the BWD Methodology to the 2011 season results in the following adjustments:

KEY METRICS	GA	Club	Suites
Avg. Ticket Price	\$124	\$251	\$124K
% Sold (Capacity)	100% (65K)	100% (10K)	100% (130)
REVPAS	\$124	\$251	\$124K
Total Revenue	\$80.8M	\$25.1M	\$15.5M
% Chg. (Rec. v. Actual)	40%	12%	0%

Recommendations

- Raise prices on GA tickets to an average of \$124 to capitalize on excess demand evident from 2nd hand market
- Lower the price of club seats (perhaps best achieved by lowering the lowest tier of prices)
- Contract number of suites in order to adjust to demand

By implementing our recommendations, the Los Angeles franchise will reach maximum seating capacity resulting in an increase to 2011 total revenues by 27% to \$121.3M.



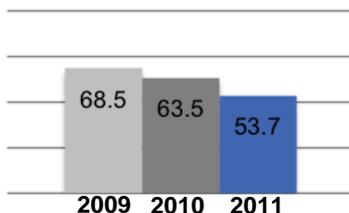
Pricing Breakdown: Portland Cobras

Portland has struggled to draw fans as the team has had three consecutive down years, with sales down in all three sections of the stadium

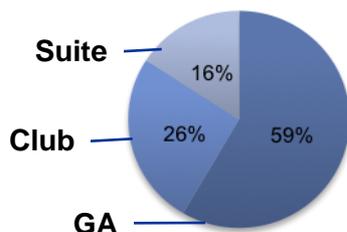
Current Snapshot

2011 Record: 7-9	GA	Club	Suites
Avg. Ticket Price	\$69	\$258	\$98K
% Sold (Capacity)	72% (65K)	67% (8K)	66% (130)
REVPAS	\$48	\$173	\$65K

Ticket Revenue (MM)



2011 Revenue % by Section



Additional Details

- Overall decrease in revenue (15%) was largely attributable to fall in GA revenue (18%) and Club revenue (13%)
- Prices were reduced across the board in 2011 (9% on GA, 4% on club, and 6% on suites), but per game sales still decreased for each section
- The Cobras have a record of 18-30 in the past 3 years

BWD Methodology

- Applying the BWD Methodology to the 2011 season results in the following adjustments:

KEY METRICS	GA	Club	Suites
Avg. Ticket Price	\$51	\$196	\$98K
% Sold (Capacity)	100% (65K)	100% (10K)	100% (88)
REVPAS	\$51	\$196	\$98K
Total Revenue	\$33.0M	\$15.7M	\$8.5M
% Chg. (Rec. v. Actual)	5%	14%	0%

Recommendations

- Dramatically lower average ticket price, especially lowest tier of pricing to create inexpensive basement level for budget conscious fans
- Lower overall club seats across the board and increase capacity to 10K
- Close remaining suites until demand increases due to on-field performance, stadium improvements, etc.

By implementing our recommendations, the Portland franchise will reach maximum seating capacity resulting in an increase to 2011 total revenues by 6% to \$57.2M.



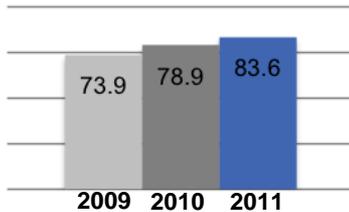
Pricing Breakdown: Oklahoma City

Oklahoma City has shown tremendous growth over the past three years, and is selling out in almost every section. Ticket prices will need to go up to take advantage of this excess demand.

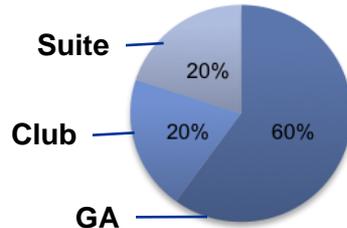
Current Snapshot

2011 Record: 14-2	GA	Club	Suites
Avg. Ticket Price	\$80	\$283	\$107K
% Sold (Capacity)	100% (63K)	99% (6K)	96% (160)
REVPAS	\$80	\$281	\$102K

Ticket Revenue (MM)



2011 Revenue % by Section



Additional Details

- Regular season waiting list for 2011 was 70,000
- OKC offers limited tiered pricing, with only 3 different price points for GA (\$70, \$80, \$90), 2 for Club (\$250, \$300), and 2 for Suites (\$100K, \$110K)
- Average 2nd-hand markup is the highest of the four teams
 - 110% for GA, 75% for Club

BWD Methodology

- Applying the BWD Methodology to the 2011 season results in the following adjustments:

KEY METRICS	GA	Club	Suites
Avg. Ticket Price	\$83	\$293	\$107K
% Sold (Capacity)	100% (65K)	100% (10K)	100% (152)
REVPAS	\$83	\$293	\$107K
Total Revenue	\$52.5M	\$17.6M	\$16.4M
% Chg. (Rec. v. Actual)	4%	4%	0%

Recommendations

- Increase capacity for both GA and Club seats to capitalize on excess demand
- Raise ticket prices by a marginal amount to offset secondary market demand
- Reduce number of suites to allow room for additional club/GA seats

By implementing our recommendations, the Oklahoma City franchise will reach maximum seating capacity resulting in an increase to 2011 total revenues by 3% to \$86.5M.



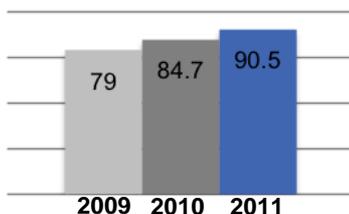
Pricing Breakdown: San Antonio

San Antonio is the hottest ticket of our four case teams. With a plentiful season ticket waiting list and limited seating (62,000 GA/Club and only 90 suites), expansion is an option worth investigating

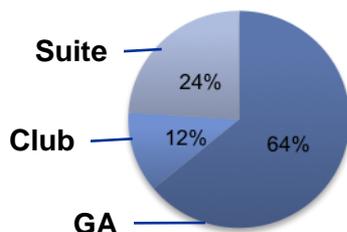
Current Snapshot

2011 Record: 11-5	GA	Club	Suites
Avg. Ticket Price	\$98	\$525	\$245K
% Sold (Capacity)	99% (60K)	100% (2K)	100% (90)
REVPAS	\$97	\$525	\$245K

Ticket Revenue (MM)



2011 Revenue % by Section



Additional Details

- GA tickets have not sold out each game despite a 60,000 person season ticket waiting list
- Revenue growth of 7% in 2011 was due to ticket price hikes in GA (5%), Club (5%), and Suites (11%)
- 2nd hand markups have remained relatively constant (20-30%) despite increases in ticket prices each year

BWD Methodology

- Applying the BWD Methodology to the 2011 season results in the following adjustments:

KEY METRICS	GA	Club	Suites
Avg. Ticket Price	\$98	\$546	\$245K
% Sold (Capacity)	100% (65K)	100% (10K)	100% (108)
REVPAS	\$98	\$546	\$245K
Total Revenue	\$58.5M	\$10.9M	\$26.5M
% Chg. (Rec. v. Actual)	1%	4%	20%

Recommendations

- Significant stadium expansion is needed in all sections to meet demand
- Even with large (8K) increase in club seats, prices can still raise (best achieved through increasing most premium club seats or charging more for peak season games)
- More sophisticated and varied price tier-ing for all sections is essential to capitalize on max consumer WTP

By implementing our recommendations, the San Antonio franchise will reach maximum seating capacity resulting in an increase to 2011 total revenues by 6% to \$95.9M.

Additional Suggestions for Consideration

Our recommendations have been based on current ticketing policies utilized. We also recommend investigation and implementation of some strategies in the following areas where applicable

Dynamic Pricing

- Time-based pricing or third-degree price discrimination
- Capitalize on customers being divided into groups with separate demand curves, and charge different prices to each group.
- Allow teams to capture of all the willingness to pay and capture more customer surplus.
- Will allow teams to capture the secondary ticket revenue by changing the prices based on the importance of the game to each individual.

Improve Experience

- Invest capital to alleviate all pain points of attending a game in person
- Increase number of bathrooms in stadium to reduce the bottlenecks allowing for attendees to view more of the game
- Increase number of sports bars with in stadium with multiple televisions playing all the daily games
- Reduce the price of alcohol after the team scores
- Offer free parking

Season Ticket Guarantees

- Offer season ticket holders partial refunds if the team does not make the playoffs.
- Calculate refund amount based on probability the team will be competitive (and potentially investigate insurance policy against)
- Will incentive potential season ticket holders on the margin to convince those who would otherwise not buy season tickets

Wait-List Fees

- Require fee for those who wish to have name on season ticket waitlist
- In exchange for fee, individuals will receive two tickets to one game each year
- For teams with large waitlists, this will help slot fans into less desirable games/less desirable seats and increase overall attendance/revenue

Conclusion

- Ticket sales in the NFL will always depend on a variety of factors that depend not only on the individual community but also the quality of the game experience
- It is important to monitor many of these factors, but they may be hard to quantify
- As a result, BWD Analytics has come up with an approach to input demographic data and past ticket sales history to adjust prices
- These improvements project increases in revenue and attendance for all four of the teams analyzed in this case study, but can also be applied to the remaining 28 NFL teams
- On a year by year basis, teams will also need to monitor qualitative factors that may lead to trends not captured in this model, and come up with creative ways to offset negative changes/capitalize on positive opportunities
- Additional research may also reveal trends within a season, including differences in sales for rivalry games, late season games with playoff implications, etc.