

Challenging NFL Overtime Orthodoxy

Kunal Lobo

Introduction

Before 2022, when getting the ball first in overtime meant a touchdown won the game, teams overwhelmingly elected to get the ball first. The exceptions to this were when teams picked the side for the wind advantage, but still almost no teams elected to kick the ball first. In 2022, the NFL changed its overtime rules to guarantee each team at least one possession. So far there have been three games that have gone to overtime. The first was Chiefs vs 49ers, in which the 49ers won the coin toss, got the ball first, kicked a field goal, and subsequently lost with the Chiefs next touchdown. Then, there was a shift in perspective. In the 2025 NFL playoffs, two games went to overtime: Bills vs Broncos and Rams vs Bears. In both cases, the team that won the coin toss elected to kick the ball and subsequently lost the game. While there are many factors that go into who wins the game, besides the overtime coin toss, my analysis is that both teams still made the wrong decision to kick the ball first. The decision by these two coaches were not questioned by the reporters after the game nor were they even asked about and discussed by sports media – which seems to me a journalistic failure. While no decision guarantees a win, and we should be careful basing the analysis on three data points, I think a full analysis will show my point that **with current NFL playoffs overtime rules, especially in overtime, teams should elect to receive.**

While I don't have access to all the stats to do advanced analytics, this paper will serve as a general guide. Since not everyone reading this is a math person, I will first make the intuitive case from a conceptual standpoint before breaking down the math.

Different Over-Time rules and tendencies

- Ties possible
 - In NFL regular season
- Ties not possible
 - In NFL Playoffs
 - In College Football
- Pre 2010 NFL – 15 minutes, sudden death – whoever scores first, including a field goal, wins.
 - Nearly 100% of teams elected to receive
 - First team won 60% of the time with 34% winning on first possession.
- 2010-2017 all NFL, and 2017 – 2022 NFL Playoffs – 15 minutes, the second team gets a possession if the first team kicks a field goal
 - Still nearly 100% of teams elected to receive
 - 51.2% of regular season games and 83.8% of playoff games were won by the team that got the ball first

- 2017-2024 NFL Regular season only – 10 minutes, the second team gets the possession if the first team kicks a field goal
 - Still nearly 100% of teams elected to receive
 - 59.7% of teams that won the coin toss first won
- 2022 NFL Playoffs-present -- 15 minutes, both teams are guaranteed a possession
 - Three total cases
 - 1/3 elected to take the ball first
 - 2/3 who got the ball first won
- 2025 Regular Season-present – 10 minutes, both teams are guaranteed a possession
 - 71% of teams kicked off
 - 53% of teams that took the ball first won
- College Football
 - 99% of teams play defense first
 - Historically 52% to 55% of teams playing defense first win
 - Since 2013, only about 49.7% of teams playing defense first win

Sample Size/Assumptions

Since there is limited data post the rule change, it is unwise to analyze just a few data points. Instead, we will look at other similar data points that are slightly imperfect comparisons.

Still, we need to be clear on our assumptions. One assumption is that given identical situations, NFL playoff teams, NFL non-playoff teams, and college football teams will have similar statistics. This is obviously an imperfect assumption because as the rules of each change, the balance between offense and defense might be different from year to year. We will make these corrections where we can. Also, things like field goal kicking should be worse in college, and the two-point conversion starts at the 3 rather than the 2. Still, it can be useful to discuss. Finally, another assumption is ignoring the effect of offense-oriented rules changes from prior to 2010 and now. However, if anything, this makes our case stronger for receiving first, as there is an increased chance of scoring first.

Also, the fact that NFL regular season can allow a tie, while in the playoffs it can't, poses some limits on being able to properly compare the two. Additionally, the 10-minute limit for the regular season makes for quite a different case, as will be explained. But the challenge remains that the sample size post 2022 playoffs is too small to judge.

The Conceptual Case

In college overtime, which works very differently than the NFL, both teams are guaranteed the same number of possessions. As a result of this, when given the choice, college teams 99% of the time choose to play defense first for the “informational advantage”. Historically, about 52% to 56% of teams playing defense first won, reducing to 49.7% recently. The fact that 99% of teams make this choice is more than just a mere preference – its because they believe that there is an advantage. For reference, in tennis about 65% percent of players

decide to receive first with that becoming closer to 50/50 as the tournament progresses. That is a preference, but 99% is much higher than a mere preference.

So why do teams in college football elect to receive? The common wisdom is the informational advantage. If you play defense first, you see how much the offense scores and then you know exactly how many points you need to win/tie. For example, if the offense scores first, the defense will know that they need to score and won't attempt a field goal. And because of this, they know that they have four downs to go for it.

But there is a flaw in this logic. Just like the offense will know it has four downs, the defense will also know that the offense has four downs and can prepare accordingly. If it is an advantage for the offense to know how many downs it will have, surely it is an advantage for the defense to know as well. The offense that goes first also has the advantage of going for it on 3rd down knowing privately that it plans to go for it on 4th down as well – something the defense wouldn't know. That advantage may go away playing offense second.

Additionally, if it is tied after the first overtime period, then the other team gets to go on defense first and any advantage you think you had in the first overtime period is reversed. That is probably why the percentage has dropped to even below 50% now.

So, playing defense first, is a preference, not a necessary advantage. This can be seen even more in third overtime, when there is no informational advantage for playing defense first. In the famous 2021 Penn State vs Illinois game where it went to 9th overtime, every time the team had a choice, they played defense first, while the second team chose the endzone – Penn State, at home, chose the loud endzone, whereas Illinois chose the quieter endzone. Still, the preference to play defense first always came before the more material advantage of choosing the endzone.

Doing a comparison between college football and the old NFL rules show that at best, winning the coin toss in college football provides for less of an advantage than winning it first in overtime in the NFL. This means that historically, the best advantage has been getting the ball first when there are not a guaranteed number of possessions. In other words, the potential extra possession in the NFL is more important than the potential information advantage in college football.

Prior to 2010, there was no informational advantage for kicking the ball first, which is why NFL teams overwhelmingly chose to receive first. Between 2010 and 2022, there was some informational advantage to kicking the ball first, as if the first team scores a field goal, the second team knows not to punt. After 2022, there was even more information advantage, as the second team knows exactly what it needs in order to win/tie. Meanwhile, the probability of getting an extra possession has declined since then. This has led many people to believe that it is better to kick the ball first and go on defense first.

There are three possibilities that can occur after the first possession. Either the kicking team scores more, the receiving team score more, or its tied. Leaving aside two-point conversions, which will be addressed later, there is no situation under the new rules that will allow the kicking team to win after each first possession that wouldn't have had the same result

in the old rules. The only situation that changes is if both teams score a touchdown, which under the previous rules would have resulted in the first team winning (the second team wouldn't even be given a chance) but is now resulting in the game being tied. If the game is tied, then it reverts back to the old NFL overtime sudden death rules, which favor the team having the ball first at 60%. Also keep in mind that this 60% was measured before the leagues changed to benefit the offense – meaning getting the ball first in sudden death should be higher now.

A common argument that is given is, “If you stop them first in overtime, then you can kick a field goal to win the game,” but this was true even with the old rules. And the fallacy is that it works the other way too – if you kick the field goal to open overtime, all you need is a stop to win the game. Since these particular situations haven't changed at all since the rule change, they shouldn't be used to justify the new orthodox decision in overtime.

As far as two-point conversions go, the reason teams in most situations go for one, is because there is a higher expected value, and on average the conversion rate of two point conversions is under 50%. So, if teams are going for two after a touchdown to win in the second possession, there is less than a 50% chance of that situation occurring. The full breakdown will be shown in the math section.

Finally, another thing kept out of the conversation is the kickoffs. The 60% that won with the old kickoff rules had the touchback being at the 20 yard line. Now, the touchback spot is the 35 yard line. In 2024, when the touchback line was the 30, most kickers kicked the touchback, but after it was moved to the 35, most kickers made them run it back. This shows that the equilibrium spot for the return would be between the 30 and the 35, much further than it ever was before. This gives even more of an advantage for the team receiving, as every team that receives first will receive the kickoff, but the teams that kick will only receive it if the receiving team scores. In the 2023 Super Bowl, which is often used as evidence against my point, the old kickoff rules were in place and the touchback was at the 25-yard line. In both 2025 playoff games, the team that got the ball first went three and out and punted. The kicking first team, got the ball at near the 10 yard line, which is much worse field position, got several first downs and had to punt anyway. This is indicative of the field position advantage resulting from the new kickoff rules. Another way to think about it is, even if the first team goes three and out and doesn't get a single yard, if they punt at least 40 yards, they will have a better field position.

Note, this analysis isn't necessarily applicable to the regular season. Due to the 10-minute limit and the chance of a tie, the probability of the first team getting an extra possession is much lower. It is likely that the 10 minutes will only be enough for each team to get one possession and the tie simply ends the game.

To summarize, even with the new kickoff rules, there is a good chance that the team receiving the ball first will receive an extra possession. Historically, this has been a much better advantage than the informational advantage.

	Receive the ball	Kick the ball
Informational Advantage	Defense advantage	Offense Advantage
Extra Possession	Chance of 0, 1	Chance of 0,-1

Field Position	Advantage if punting first	Same, if first team scores
-----------------------	----------------------------	----------------------------

Another intuitive way to understand this is when given the choice for a half, teams usually choose to receive the ball first (some might choose side, or to defer, but none will choose to kick). Why do teams do this? If after all, receiving second allows the “informational advantage” and allows you to match, then that logic should make you want to go second. And I would likely agree that if there are a fixed number of possessions for each team in a half, then it would then be beneficial to kick the ball off and play offense second. But the reason teams want the ball first is because there isn’t a guaranteed number of possessions and teams have roughly a 50% chance to get an extra possession at the end of the half. The same intuitive logic should apply here. Whatever informational advantage you think you are getting by taking the ball second is less important than the extra possession you get.

Mathematical Explanation

While the last section was more conceptually based, this section will break down each point mathematically. Let’s start by trying to understand the old overtime rules prior to 2010. About 60% of teams that received the ball first won, with 34% winning on the first drive. These numbers are consistent with each other and don’t hint that the pattern should change throughout the duration of overtime. Since it’s sudden death, and touchdowns and field goals are the same, the probability of a team scoring on any drive is 34%. If the team fails to score, the other team has a 34% chance of scoring, meaning the first team has a 66% chance of getting the ball back. The probability of winning can thus be written as a geometric series.

$$\begin{aligned}
 \textit{Probability Winning} &= 0.34 + 0.66^2 * 0.34 + 0.66^4 * 0.34 + \dots \\
 \textit{Probability Winning} &= \frac{0.34}{1 - 0.66^2} = .602
 \end{aligned}$$

Which is exactly what we expect. Since NFL rules have changed to favor more offense, we can expect this number to be higher. We will first assume that on the first possession of overtime, teams will want to score as many points as they can without giving the other team good field possession, just like the opening drive of the game. Also, like the opening drive, the kickoff should result in the same starting field position. Approximately 22% of first drives end in a touchdown and 19% end in a field goal, totaling 41%. So, in a sudden death situation, the team given the ball first will win with a probability

$$\textit{Probability winning} = \frac{0.41}{1 - (1 - 0.41)^2} = 63\%.$$

After the first two possessions, the team that gets the ball first will then win about 63% of the time. While there are no reliable statistics on the probability of a team scoring a touchdown

or field goal in response to the other team scoring first in overtime, we must find a different approach.

One method was to slightly adjust the previous rules where a touchdown wins but a field goal extends, but the data is not reliable. In the regular season, where a tie is allowed, there was about a 52% chance of the team taking the ball first winning, but in the playoffs, it was as high as 83%, which was 10/12 teams that received first, with 7/12 winning on the first possession. That would mean of the teams that didn't win on the first possession, there was still a 3/5 chance of them winning, which is 60%, which is still higher than the regular season average. Of course, this is a small sample size, and it's difficult to compare overtime that allows ties from one that doesn't. So, given the discrepancy between 52% and 83%, there is clearly a difference between regular season and overtime, but the overtime data is too small to properly use it for prediction. Thus, we must only use pre-2010 data.

It is also difficult to get data on the rate of scoring a touchdown when a touchdown is necessary. Normal data won't be accurate, since a touchdown is not necessary, and the two-minute drill is also not accurate since it involves a time constraint and the possibility of the other team scoring again.

Instead, we will use the following sample data from 2025 during the first two possessions of the regular season. According to the stats from regular duration, there is about 50% probability of there being a tie after the first two possessions.

- 35%-40% of games tied at 0-0
- 5-7% of games tied with field goals
- 3-4% tied with touchdowns
- 25-30% with one team ahead.

With the additional information given, the probability of a tie after the first two possessions in overtime is expected to be higher, as the second team is likely to go for it on fourth down to try to tie. Since we don't know the exact advantage the "additional information of playing defense first" is, we will define p_1 as the probability of the team that receives the ball first winning in the first two possessions, conditional on one team winning (the probability of receiving team winning in the first two possessions over the probability of either team winning in the first two possessions).

From before, if it goes to a third possession, it reverts back to pre-2010 rules, where the probability of the team with the ball first winning is 63%. This means that assuming 50% of games are tied after two possessions, we get the receiving team with the probability of winning equal to

$$\text{Probability of winning} = 0.5p_1 + 0.5 * 0.63$$

This equation implies that taking the ball first in overtime is favorable if p_1 is at least 37%. For some context, in college football, between 50% and 55% of teams that play defense first (so 45%-50% of offense first) win and 62% of games are decided in the first period. Given that the information advantage alternates every period, we can reverse engineer to find the

equivalent of p_1 (probability of offense first team winning for college football over probability either team winning first).

$$\text{Probability of winning} = 0.62p_1 + 0.38 * 0.62 * (1 - p_1) + 0.38^2 * 0.62p_1 + 0.38^3 * 0.62 * (1 - p_1) + \dots$$

$$\text{Probability of winning} = \frac{0.62 p_1}{1 - (1 - 0.62)^2} + \frac{0.38 * 0.62(1 - p_1)}{1 - (1 - 0.62)^2}$$

Solving this for p_1 gives us

$$p_1 = \frac{1.38(\text{probability of winning}) - 0.38}{0.62}$$

Plugging in the different values of the probability of winning in college football, the probability of winning playing offense first in college football over the total probability of the game being decided in the first period ranges from 39% to 50%, all of which is higher than the 37% required for the receiving team to have an advantage in NFL playoffs. Of course, college football overtime is different than the NFLs, but the information advantage seems the strongest in college football, where the ball is always close to the endzone, with the option to punt, kick, or receive. So, I could expect the informational overtime in the NFL to be close to, or less than this, meaning that receiving the ball gives an advantage.

Before we can test on real data, we should determine the optimal strategy for whether to go for one or two for each team. This is only relevant if both teams score touchdowns, so this analysis will assume the situation where both teams score touchdowns. We will assume the rate of 1pt conversions is about 95% and the rate of 2pt conversions is about 45%, but you can adjust these numbers if necessary. Note, P represents the probability of the receiving team winning, where if it's tied after the possession, the receiving team is assumed to have a 63% rate of winning, as discussed before.

- Both teams go for 1 regardless
 - $P = 0.95^2 * 0.63 + 0.95 * 0.05 + 0.05^2 * 0.63 = 62\%$
- First team goes for 1, 2nd team goes for 2 only if first team makes it, 1 otherwise
 - $P = 0.95 * 0.55 + 0.05^2 * 0.63 = 52\%$
- First team goes for 2, 2nd team goes for 2 if makes it, 1 otherwise
 - $P = 0.45^2 * 0.63 + 0.45 * 0.55 + 0.55 * 0.05 * 0.63 = 39\%$

Thus, if the first team goes for 1, it is better for the second team to go for 2. If the second team does the dominant strategy, it is best for the first team to go for 1. So, assuming both teams score a touchdown, there is a 52% chance of the first team winning. This is slightly lower than the 63% chance assumed before this only changes the probability by 11%*(probability both making touchdowns). If we take the assumption that each team scores a touchdown at a 22% rate, the probability of both scoring a touchdown is roughly 5%, and the decrease in probability of the first team winning is 0.5%. So, this doesn't change the overall calculation that much, but it makes an important clarification.

In the regular season, after the second team scores a touchdown, in a 10 minute game, it is likely that if they go for 1, they will never get the ball back meaning they will tie at best. This is not the case with overtime, so one could make the case that overtime games would result in less second teams going for 2 to tie it up. However, from the math I was shown above, even if there is no possibility of a tie, it still makes sense to go for 2, as it decreases the chance of losing from 63% to 52% (and thereby increases the chance of winning from 37% to 48%). Thus, the behavior of teams going for 2 after the second possession should also be applied to overtime, even if the advantage is albeit not as much.

Field Position

One thing that hasn't been discussed is the field position advantage of receiving the ball first. If the first possession is a touchdown and field goal, then the field position of both teams should be the same. However, if the first possession is a punt, the first team has a distinct advantage in field position.

According to chatgpt, the average starting field position in 2025 is the 30. The net punting average was 41 yards. That means that even in the unlikely scenario that the first team not only goes three and out, but receives zero yards, the second team will get the ball behind them. While there are no stats for the average starting possession of the second team, we know that it is at least expected to be slightly worse.

Another relevant stat is that the three-and-out rate is about 18-25%. Even taking the upper end of the spectrum, that's a 75% chance of getting a first down. In that situation, a 41-yard net punt would land inside the 20. This happened in both the Bears vs Rams game and the Bills vs Broncos game. Both the Rams and the Broncos who got the ball first, punted, and the receiving team got significantly worse field position than them, so much so that even after converting multiple first downs, they still didn't score.

The correction to this would be that p_1 is higher than it historically was. In college football, both teams start at the exact same place, and in our calculation that derived 63%, it assumes that both teams have the same probability to score on every drive. This may have been true pre-2010, where the touchbacks were at the 20 yard line, and the average starting field position was the 24-25 yard line, but the new kickoffs have given an additional five yards to each returner.

Testing on Sample Data

Part of the issue of working with real data is the sample size is so small. The sample size of overtime playoffs games is 3 (two in 2025 and one in 2023), while the sample size of regular season overtime games is 14 (all in 2025). Furthermore, we are going to eliminate one, Packers vs Cowboys, for the sake of this analysis, since it ended in a tie, which cannot happen in the playoffs.

To make a prediction using our data, we will assume the 50% probability of the score being tied after the first possession as before and a 50% chance of the game ending after the first

possession, and we will estimate the probability of the receiving team winning in the first possession over the total probability it ends in the first possession conservatively at 39%. This conservative estimate is based on the most conservative college football defense first win percentage of 55% resulting in the information advantage in college football having a 61% chance of winning. Given that college football has a greater informational advantage since they are near the goal line (and can take advantage of first possession int by immediately kicking a field goal to win) as well as the advantage in field possession for the team receiving first, we expect the true value to be below our conservative estimate. This gives our estimate as $P = 0.5*0.39+0.5*0.63 = 51%$ at the very lowest limit.

The following chart compares our estimate for ending in the first possession and the receiving team first winning the game with the real data. The overall category uses a weighted average of the regular season and playoff games. Keep in mind that the playoff data is small enough already but still isn't a homogenous category – the kickoff rules changed between 2023 and 2025, meaning the advantage for receiving the ball first should increase in that time, even though the decision from coin toss winners have done just the opposite. Still, we will keep them in the same category, since the sample size is already small enough.

	Expected	Regular Season	Playoffs	Overall
% Chance game ends first possession each	50%	12/13=93%	1/3=33%	13/16=81%
<i>Probability receiving team winning first possession</i>	39%	6/12=50%	0/1=0%	6/16=46%
<i>Probability game ends in first possession</i>				
<i>Probability receiving team wins during sudden death</i>	63%	1/1=100%	2/2=100%	3/3=100%
<i>Probability game goes to sudden death</i>				
Overall Probability receiving team wins	51%	7/13=54%	2/3=67%	9/16=56%

At first glance the numbers seem to have high variance for the % chance the game ends in the first possession between the regular season and playoffs. Given that the thesis involves the playoffs, there are many reasons, why this 93% is considerably higher than expected. Although in the playoffs, football is almost perfectly a zero-sum game, this is not true in the regular season. Given how physical that a game football is, teams have an increased incentive to try to end the overtime as quickly as possible, as a physically punishing win this week could easily lead to a loss the next week. Additionally, at the end of the first position, teams have an increased incentive to try to win rather than tie, knowing that if they tie it up, a win becomes nearly impossible. Whereas, in the playoffs, where it's win or go home, teams have an extra incentive to win. One way to think about this is that if the 2pt conversion 37% success rate (exactly the same as if the game goes on), the second team in the regular season might still go for the 2pt conversion over the 1pt to tie, because win probability being equal, it is better to end the game quickly and decrease the chance of injuries for the next week. An example of this is the Rams vs 49ers game, where the 49ers scored the first field goal, the Rams drove into field goal range, and then turned it over on downs on 4th and 1 rather than kicking. Perhaps a more in-depth analysis can be done on this phenomenon, but there are too few data points to do proper data analysis. As for the playoffs, the 33% is simply caused by a small sample size, and it's well within the expected 29% standard deviation expected for 3 data points.

So, although we shouldn't expect the % chance the game ends in the first possession to be accurate, we can take a look at the other stats. We conservatively estimated the probability of winning on the first possession over the probability the game ends after one possession using college football statistics. We shouldn't expect our values to be that accurate, but we should expect them to be higher since this was a conservative estimate. While the playoff sample size of 1 is small, the regular season sample size of 12 found this value to be 50%, meaning an overall 46%. An argument could be considered that we shouldn't count the one playoff game, since the kickoffs were different, but given that the first team scored a field goal, both teams received the a kickoff, which will be the same as in our current analysis. We shouldn't expect this value to be too different between the regular season and overtime, because while teams might try to end it in the first possession, we shouldn't expect the probability of winning over the probability of losing to change too much. Note, the standard deviation of this statistic is 14%, so our 39% fits in the range.

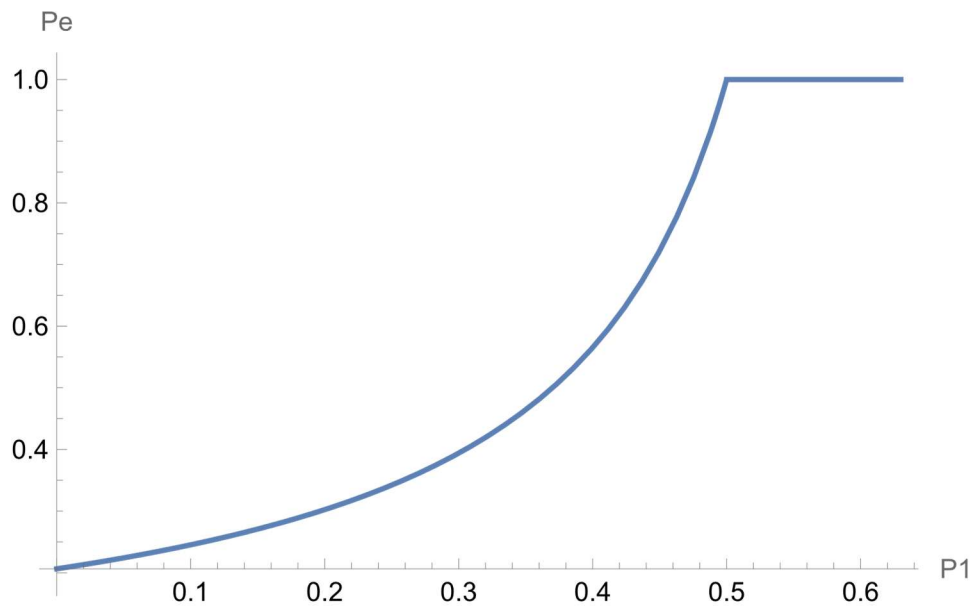
Next up is the probability of winning in the sudden death over the probability of getting to sudden death. Our expected value of 63% was derived relatively rigorously using a geometric series, but we expect it to be slightly higher given the fact that the first team now starts with a relatively better field position than ever in the past. Every data point in both the regular season and the playoffs has the team that received the ball first winning, but there are only three data points. As one standard deviation is 29%, our expected value falls just outside the range, so it's worth considering raising this value slightly to account for the field position advantage.

Finally, there is the overall percentage. The conservative estimate is lower than the actual value for both the regular season and the playoffs. The overall percentage is 56% with a 12.5% standard deviation. Comparing to the real data, we don't expect the sample data of % chance to end in first period, since the regular reason is expected to be different, and we shouldn't adjust the %chance winning in sudden death, since that was derived more rigorously. We should perhaps consider adjusting our %chance winning from 39% to 46%. For what it's worth, if this informational advantage would apply to college football, this would decrease the win probability of the team playing defense first from 55% to 52%, which is still well in range of the college football win estimate. Using this 46% number, we can derive the new expected probability of the receiving team winning.

$$\text{Probability of winning} = 0.5 * 0.46 + 0.5 * 0.63 = 54.5\%$$

This puts it more in line with the data, but we should be careful not to overfit this small sample size of data. Also, since our 50% in the first period was based on the first quarter of the regular season, rather than overtime, it is possible to adjust this value to see the threshold value before it becomes optimal to take the ball first. We find this threshold value is 76%, where above this threshold, the informational advantage from each team's first possession is more valuable than the advantage of potentially having an extra possession. Given that the probability of the first two drives in the first quarter ending in 0-0 is 35-40%, and we shouldn't expect this value to change in playoff overtime, since there is no "informational advantage", this alone would make the 76% chance of ending in the first quarter realistic. To see the overall combinations of P1, the

probability of winning in the first possession each over the probability of the game ending in the first possession, and P_e , the probability of the game ending in the first possession, each, refer to the graph below:



Here, the line shows the combinations that result in a 50% chance of winning when taking the ball first, so anywhere below the line would be combinations where the probability of winning when taking the ball first is over 50%. Obviously, since the probability of winning if making it to the second possession each is 63%, if the probability of winning during the first possession exceeds 50%, then the overall probability will exceed 50%, hence the piecewise nature of $P_1=50\%$. From the data recorded, we estimate P_1 to be around 46%, meaning that the P_e would need to be under 76% for taking the ball first to be beneficial. You can play around with the different combinations, but most realistic combinations you pick would result in concluding that taking the ball first in overtime would result in over a 50% chance of winning.

It is therefore shown, based on the data given that the probability of winning for taking the ball first in overtime is approximately 54.5%, and it is therefore advantageous to take the ball first in overtime. Of course, this is less than the advantage taking the ball first has historically been, meaning if there are other factors like wind, it might be beneficial to choose the side of the field like Bill Belichick did in the 2013 Patriots vs Broncos overtime game, but it doesn't appear to be logical to kick the ball first. **But overall, in the NFL playoffs, it is beneficial to receive the ball first.**

Future Analytics

To evaluate this with future data, it'll take quite a while to get enough data. So far, only three data points, the NFL playoffs, are really comparable (and of that only two which had the same kickoff rules). About 5% of games go to overtime and there are 13 NFL Playoffs games every season. With 13 NFL Playoff games a year, after 40 more seasons, with 13 games each,

and a 5% overtime rate, there will still only be 26 data points, which can only give a probability to the closest 4%.

However, once we get a lot more regular season overtime data, we can then use conditional probabilities for the second possession in overtime that should be the same in the playoffs. Given that the five situations are punt, field goal, touchdown, turnover on downs/missed field goal, turnover, eventually in the regular season, there will be enough data from each of these five situations to do analytics based on situation.