



THE POT-LIMIT OMAHA BOOK:
FROM NLHE TO
**TRANSITIONING
PLO**



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Chapter 1: Introduction

Pot-Limit Omaha is an action packed high variance poker game. As No-Limit Hold 'Em games toughen and new players are drawing almost dead when depositing money to play micro and small-stakes, it is natural for new players to take their shots at PLO games. After all, PLO is a game where bad players will win more often and if they run hot, they can build up a pretty healthy bankroll. It will also take them longer to realize they are bad. This shouldn't be surprising considering the pre-flop equity difference between PLO hands isn't big. It is also rare to be drawing dead in PLO.

The goal of this text is to teach you the nuances of PLO and what variables you should consider during hands to turn yourself into a more profitable player. While reading, keep in mind the advice is written from a solid and aggressive player's perspective. If you play a tight solid game, incorporating the advice into your game should be easier than if you play a loose aggressive style. The reason is some spots may be too thin for you since your image might not get a lot of credit from your opponents. Nevertheless, you will be able to learn how a solid and aggressive player thinks and will have a good framework on how to exploit him and those with similar styles.

Hopefully, after reading this, your PLO game will rival your NLHE game and you will be on your way to crushing small and mid-stakes PLO.

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Chapter 2: Pre-Flop Play

Although pre-flop play is a trivial street for discussion, it is the foundation of any poker game. Thus, the easiest and best way to learn a new game is to know the equity difference between hands. Once you have an idea of the relative strength between poker hands, your decision making will be easier. You can't really go wrong with the maxim, "Fold when you have little to no equity and play when you have lots of equity." Obviously, there will be situations where we play with little to no equity, planning to take the pot away in later streets. For now, let's keep it simple and get the hand equities out of the way so we can be on our way to more interesting concepts.

It is important to note that one PLO hand doesn't have a huge pre-flop advantage over another PLO hand like in NLHE. A premium hand such as AAKK is only a 67.85% favorite to win versus a random hand; in NLHE, AA has a 85.2% edge over a random hand. As you will see, the small pre-flop equity difference allows and encourages people to play a lot of pots. It is rare to see a PLO player play less than 20% of his hands.

Below are the top 30 PLO hands. Since you cannot make a flush using one card or playing the board, having the same suits increases your hand's starting strength. Double-suited hands have more value than single-suited hands and single-suited hands have more value than unsuited hands. The rankings below aren't based solely on pre-flop equity. Post-flop playability is also taken into consideration. This explains why AAJT is ranked higher than AAQQ or why JT98 is ranked higher than KKxx. In the text, "x" stands for a random card in a PLO hand.

1. AAKK	11. KQJT	21. QQAK
2. AAJT	12. KKTT	22. QQAJ
3. AAQQ	13. KKAQ	23. QQAT
4. AAJJ	14. KKAJ	24. QQKJ
5. AATT	15. KKAT	25. QQKT
6. AA99	16. KKQJ	26. QQJT
7. AAxx	17. KKQT	27. QQJ9
8. JT98	18. KKJT	28. QQ99
9. KKQQ	19. QQJJ	29. JJTT
10. KKJJ	20. QQTT	30. JJT9

Table 1: Top 30 PLO hands.

Of course, premium hands don't come around often, so what other hands can we play? The simplest answer is when hands are double suited and have the same structure as the top 30 hands. For example, 9876 and 7654 are great hands because they can flop a lot of draws and made hands. They also have the same structure as JT98. Gapped hands such as T976 and KQ98 have less value because it is harder for them to flop a wrap where they have 13 or more outs to a straight. Having connected cards also gives you a draw to go with your made hands. For example, on a flop of 6♦7♠2♣, having 9876 gives you an open-ended straight draw to go with two pair. If you have T976, you will have fewer outs to a straight. Obviously, this is a simple example, and there will be flops where T976 will have a made hand with more straight draws than 9876. However, 9876 will hit more flops than T976.

Bigger is Better

Big rundowns such as QJT9 and JT98 have more value than medium rundowns such as T987 and 9876; medium rundowns have more value than 7654 and 6543. It is important to note that we are not talking about situations where 3 players are all-in pre-flop. In such cases, small rundowns have better equity than bigger rundowns because one player likely has AAxx and another player likely has big suited cards or the other AAxx. Against those **ranges**, 7654 has better equity than JT98.

Hands	Equity %
BBBB	28.36
AAxx	34.60%
4567	37.04%

Table 2: Any four big cards (A, K, Q, J) versus 7654 versus AAxx.

Hands	Equity %
BBBB	22.76%
AAxx	45.23%
89TJ	32.01%

Table 3: Any four big cards (A, K, Q, J) versus AAxx versus JT98.

In this context, we are talking about hands that have more value if you are required to play post-flop. Thus, big rundowns have more value because they can make bigger two pairs, flushes, full houses, and straights with redraws to bigger straights; they can also continue on a lot of turns. The most important reason is a majority of their outs make the nut straight while giving your opponent an inferior straight. On a flop such as $7\spadesuit 8\clubsuit 2\heartsuit$, QJT9 and 6543 have the same number of outs. However, all of QJT9's outs make the nut straight while 6543 can only make the nut straight if the turn is a 4. A 5, 6, or 9 might give opponents a higher straight. It shouldn't be surprising that QJT9 has a 73.59% equity advantage against 6543 on this flop. In PLO, a 65% equity advantage is huge.

In NLHE, the difference between 87 versus QJ is substantial but isn't as substantial as in PLO. The reason is when 87 makes a straight in NLHE, it is rare that the same card gives QJ a higher straight. In PLO, this happens all the time. Beginning PLO players will likely look down at 6543 on a board of $7\spadesuit 8\clubsuit 2\heartsuit$ and get excited over its number of outs. After all, how bad can it be if you have 13 outs twice on a rainbow flop? Considering the range that is going all-in on this flop, 6543's equity is not as good as it looks. We will go into more details on what this range is composed of in Chapter 6.

Holdings with three connected broadways and a dangler such as $Q\heartsuit J\diamondsuit T\heartsuit 5\heartsuit$ and $K\spadesuit Q\clubsuit T\diamondsuit 3\spadesuit$ might not look pretty like double-suited $4\clubsuit 4\spadesuit 5\clubsuit 6\spadesuit$ or $J\diamondsuit 8\spadesuit 6\diamondsuit 5\spadesuit$ but they have a lot of value post-flop. On a flop such as $9\clubsuit 8\diamondsuit 2\heartsuit$, $Q\heartsuit J\diamondsuit T\heartsuit 5\heartsuit$ has 13 outs to the nut straight and we don't have to worry about someone else making a higher straight; a turn 7, T, and J may also give our opponents lower straights. It is rare for $4\clubsuit 4\spadesuit 5\clubsuit 6\spadesuit$ or $J\diamondsuit 8\spadesuit 6\diamondsuit 5\spadesuit$ to hit the nuts while giving someone else a second best hand. For this reason, when in late positions, we should add single and double-suited $Q\heartsuit J\diamondsuit T\heartsuit 5\heartsuit$, $K\spadesuit Q\clubsuit T\diamondsuit 3\spadesuit$, and those similar in structure to our opening range; we are also playing with hands such as $4\clubsuit 4\spadesuit 5\clubsuit 6\spadesuit$ and $J\diamondsuit 8\spadesuit 6\diamondsuit 5\spadesuit$.

Low cards hands where the top card is a 7 don't have much value because their straight outs might give somebody a higher straight; their flushes and full houses are often beaten as well. For this reason, $Q\clubsuit 8\diamondsuit 6\clubsuit 7\clubsuit$ has less value than $Q\heartsuit J\diamondsuit T\heartsuit 5\heartsuit$ even though they have the same structure. Nevertheless, with position on your side, playing cautiously with weak and marginal hands will add to your winrate. We shouldn't play them if they aren't suited because flush draws have a lot of equity in PLO. Besides these hands, what else can we play with in late position?

Late Position Opens

Because position is so important, it is not uncommon to have a stealing percentage of 40% or more. Thus, when it is folded to you and you are on the cutoff or the button, you should consider anything that resembles a hand. Weak hands such as $2\spadesuit 3\clubsuit 6\clubsuit 7\spadesuit$, $J\spadesuit 8\diamondsuit 5\diamondsuit 4\spadesuit$, and $K\spadesuit Q\heartsuit T\spadesuit 6\clubsuit$ are playable; you can't really go wrong opening any suited ace such as $A\spadesuit 2\spadesuit 9\diamondsuit J\spadesuit$ and $A\clubsuit 6\clubsuit K\diamondsuit 3\spadesuit$; bad looking hands such as $A\spadesuit 2\spadesuit 2\clubsuit 4\diamondsuit$ and $A\diamondsuit 4\diamondsuit 9\spadesuit Q\clubsuit$ have more value than it seems because they can make the nut flush. An equivalent set of hands in NLHE would be suited A6-A8, suited Kx, or offsuit broadways.

If there is a non-UTG pre-flop raise when it gets to you, in addition to the premium hands listed above, you can start 3-betting with marginal hands such as $J\heartsuit 6\clubsuit 7\clubsuit T\heartsuit$, $Q\clubsuit J\spadesuit T\clubsuit 7\diamondsuit$, and $K\heartsuit T\heartsuit 9\clubsuit 6\clubsuit$. They are marginal because they don't often make the nuts. However, due to the power of position, their value increases tremendously. You can open with these holdings at UTG+1 or later. You should fold these hands out of the blinds if the opener from late position is a good aggressive player. Hands with similar structure to $J\spadesuit 8\diamondsuit 5\diamondsuit 4\spadesuit$, $A\spadesuit 2\spadesuit 2\clubsuit 4\diamondsuit$, and $2\spadesuit 3\clubsuit 6\clubsuit 7\spadesuit$ should also be folded in early positions and from the blinds as well. There aren't a lot of favorable flops for these and you can get in a lot of trouble playing out of position. We will explain the power of position in Chapter 3.

Limping Behind

There are situations where you are on the cutoff or the button and should consider limping behind instead of isolating the limpers. The reason is UTG and/or UTG+1 limpers rarely limp-fold. Thus, the blinds are more likely to come along, making it harder for you to win when holding marginal hands that don't play well in multi-way pots.

Limping behind also keeps the pot small. A lot of players play poorly in limped pots because they often check-fold missed flops and don't fight for them. They reason that the pot is small and they have bigger pots to worry about. However, we know better than that. A limped pot usually has 3 to 4 big blinds. If you take down 2 or 3 uncontested limped pots per 100 hands, that will increase your winrate dramatically. In fact, it may be the difference between a break-even and a winning player. The

question is, with what hands should we limp behind?

Hands that are good to limp behind with are hands that are composed of two good NLHE hands that don't work well together and don't have premium draws. These hands usually involve a medium pair with one or two overcards such as 8♠8♦K♠J♣, Q♥T♥7♣7♦, and T♣T♦9♣A♠; they don't have much value unless they hit a set. When they hit a straight or a flush, someone is likely to have a bigger straight or a bigger flush. They often can't continue on the turn due to a lack of backdoor draws. Thus, to increase their value post-flop, it is better to keep the pot small and keep your opponents disinterested. The larger the pot, the more your opponents are likely to fight for it and the less you will win.

It is also not uncommon to limp behind with bad Kings and Aces such as K♦K♣3♦8♠ and A♠A♥6♦9♣. You can call one bet on a dry flop with these holdings. They also have deception value and you can overset someone.

One important factor you should consider before playing at the cutoff position is how good and aggressive the player on the button is. If he is aggressive and will put you in a lot of tough spots postflop, it is better for you to fold pre-flop with marginal holdings such as T♣T♦9♣A♠ and 5♣5♠8♣9♦. It is very difficult to play these hands if every time you open a pot, he calls or re-raises your pre-flop open. To a certain extent, this also applies if the players on the blinds are good. Although position is very powerful in PLO, if you find yourself getting outplayed by the blinds, you should consider folding marginal holdings as well.

If you don't like folding pre-flop with marginal holdings at the cutoff, you can start open-limping with them so you can call the button's pre-flop raise. Post-flop will be easier to play since it is a much smaller pot than a 3-bet pot. You can use the same technique if the blinds are too aggressive and 3-bet often.

Pre-flop Stats

One question people often ask when first playing PLO is what percentage of hands they should play. From personal experience, big winners in the low and mid-stakes games usually play 20% to 30% of their hands; below 20% is too tight and above 30% is too loose. Of course, these numbers aren't exact science and should be used as guidelines to give you an idea of what the norm is. Your style

might be different.

As a general rule, when first playing a game, it is better to stick to tight pre-flop guidelines (~20% for PLO) so you won't get into many marginal and tricky situations. Additionally, by playing too many hands (~30%+), you will often get into pots with dominated draws that you think have good equity when in reality, your equity is almost always bad. This is assuming you are relatively new to PLO. If you have some experience and are comfortable with marginal situations, play more hands.

In later sections, there are guidelines on the categories of hands to play so your pre-flop percentage is near 20%. Players who enjoy playing with single-suited hands such as 9♥6♦5♥3♠ and Q♥Q♠4♠5♣ and double-suited hands such as J♦J♥7♦5♥ or Q♥T♦6♥5♦ in early positions – or calling pre-flop raises with them – will find themselves playing more than 30% of hands. This isn't recommended if you are new to the game, especially when you are out of position.

Hot/Cold Equity Versus Playability

It is important to realize that PLO hands that are easy to play post-flop go up in value as stacks sizes increase to 100 big blinds or more. This is why the number one mistake among novice PLO players is putting in a lot of money pre-flop with bad AAxx and KKxx when stacks are deep; “bad” in this context means they are unsuited, and can't make straights or strong two pairs. For example,

A♣A♦T♠5♥ and A♥A♠Q♣7♦ are considered bad aces; single-suited aces such as A♣A♥J♠6♠ and A♦A♥2♥9♣ are bad aces as well.

While it is true these two hands have a pre-flop equity advantage over any non-AAxx or non-KKxx hands, double-suited or single-suited rundowns such as KQJT, KJT9, AQJT, and 9TJQ might have more value. With the rundowns, players can flop a lot of draws and can continue on a lot of flops and turns; such a statement rarely applies for bad AAxx or KKxx. Additionally, bad AAxx hands are difficult to play post-flop, and you will end up feeling lost most of the time if you don't flop top set. One thing for sure is in poker, when people feel lost, they often make the incorrect decision, whether it is calling or folding.

That does not mean a pre-flop equity advantage isn't valuable – it is. It just means you should be cautious when putting a lot of money in pre-flop with bad AAxx and bad KKxx. The reason is in PLO, a hand that is behind can catch up pretty easily against a marginal holding. In this case, a bare AAxx or

KKxx with no redraw is at the low end of a marginal scale. The slim chance of turning AAxx or Kkxx into a set after the flop shouldn't count as a redraw. It is important to note that if you are ahead while holding a naked pair of AAxx or KKxx with no redraw, you are not going to be ahead by much and it is easy for your opponent to take the lead. If you are behind, you are drawing almost dead to an ace or a king.

The above discussion assume stacks sizes are more than 100BB so that you are required to play post-flop poker. If stacks size are shallow (50BB and below), there is no post-flop poker and it is all about math. In such context, it is obviously bad to choose drawing hands over aces. There will be situations where you have the option of 4-betting pre-flop and can get about 35% of your stack in. In such cases, unless the flop comes 8♥9♥T♦ or 9♠T♠Q♣ and you don't have a flush draw, there is nothing to do but auto-shove with AAxx.

A hand's playability depends on whether it can peel a lot of flops, can continue on a lot of turns, and has a good chance to catch up if behind. For example, if you are holding 9♦T♦J♥Q♣ and the flop comes 9♣7♠3♦, it is easy for you to play this particular hand. You can call the flop bet and can continue on a lot of turns such as 8, 9, T, J, Q, knowing that you have outs to the nuts and won't be drawing dead; you can also continue on a diamond turn. If you are holding A♥A♠7♦K♣ after a flop bet, you might be drawing slim on the turn against a set and won't know what to do on a non-ace or non-king turn. More importantly, you cannot withstand any pressure. If you do bet the turn, it is very difficult for you to play the river, especially when the board is drawy. The good thing is this difficulty decreases dramatically if you are in position. For this reason, position is very important in PLO and no other factor comes close.

Hands that are connected and can have nut flush draws such as A♣6♣7♦8♦, A♥8♥9♠T♠, and A♣9♣T♦J♥ are great as well because nut flush draws have a lot of equity in PLO and you are almost never in bad shape. Even a naked nut flush draw against a set has 25% equity. Often times, you will have a pair or a straight draw to go with your nut flush draw and this increases your equity by 5% to 10%, depending on whether your opponent has some blockers in his hand. Below are a few simulations. You can try out different hands by using the Omaha Hi simulation at propokertools.com. It is in your best interests to visit this website as it is currently the Poker Stove for PLO.

Board: 7♣ J♣ K♠	
Hand	Equity %
K K x x	70.67%
A♣6♣7♦8♦	29.33%

Table 4: Top set versus pair with a nut flush draw.

Board: 7♣ J♣ K♠	
Hand	Equity %
K J x x	55.59%
A♣6♣7♦8♦	44.41%

Table 5: Top two pairs versus pair with a nut flush draw.

3-Betting and 4-Betting

There is a lot of 3-betting in NLHE, both for value and bluffs. 3-betting in NLHE has a lot of fold equity so it is a very profitable play. In PLO, people rarely fold to 3-bets (correctly so) due to the small pre-flop equity difference between hands. For this reason, when you 3-bet in PLO, it should be more for value. Thus, the key is to expand your 3-bet value range to include some medium strength hands, rather than using a range consisting of bluffs and premium hands. Instead of only re-raising with AAxx and premium rundowns, add double-suited hands such as ATJ9 and AKQJ to your range.

You should also be aware of how light they are calling your 3-bets and what they are doing it with. If it gets to showdown and you notice their holdings are marginal, then their perception of your 3-betting range is light and you should adjust by tightening up. If players keep folding to your 3-bets, then continue with your aggression until they start calling light. Don't just stop 3-betting because you have been running over them and are paranoid that they are going to fight back – they won't. If they did, you would have heard from them by now. If they do fight back with marginal holdings, then tighten up your pre-flop range or widen your pre-flop 4-betting value range.

One important note regarding 3-betting or 4-betting is opponents will automatically put you on AAxx or high cards. Thus, when you are 3-betting or 4-betting with other holdings in your range, you

can bluff on a board such as AJJ or AK9 when you don't have AAxx. You make money on flops such as 678 or 78T when you are holding ATJ9 and your opponent assumes you have AAxx and wants to move you off your hand. Most important of all, it makes you a tougher player to read and play against.

Against aggressive habitual 3-bettors, in addition to 4-betting with good AAxx hands, you should 4-bet premium rundowns such as double-suited A♣K♣Q♦T♦ and J♣T♠9♣8♠. Although your opponent will have AAxx at times, due to his high 3-betting frequency, big connected and double-suited holdings do well against his range. Those hands are almost never drawing dead and are easy to play post-flop in case you get called pre-flop. 4-betting with those holdings also keeps opponents off your back.

Good kings such as K♥K♣J♥T♠ single-suited or K♥K♣7♣8♥ double-suited are good to 4-bet against habitual 3-bettors as well. Against some opponents, 4-betting with KKxx, even good KKxx, is suicidal because they almost always have good AAxx or premium rundowns when they 3-bet you. One reason for 4-betting with good KKxx when stacks are around 100BB is that it has an equity advantage over non-AAxx hands, which makes up a lot of your opponent's range if he is a habitual 3-bettor. Although there will be times he has AAxx, you can suck out.

It is a bit of a stretch to start 4-betting with QQxx hands. Your opponent has a higher chance of having AAxx and KKxx in his range. Moreover, those hands play well post-flop and you don't want to get 5-bet and have to fold. This is assuming stacks are more than 100BB where you are getting incorrect odds to call pre-flop against his 5-bet shoving range. Of course, if your opponent is 3-betting you every other hand, 4-betting with premium QQxx such as Q♠Q♦J♠T♦ double-suited or Q♥Q♠A♥J♠ double-suited is fine.

As stacks get deeper (200BB+), it is probably best to not 4-bet at all out of position. It is really difficult to play against a competent player out of position in huge pots. The best way to deal with him is to try to keep the pot as small as possible when you are out of position. That doesn't mean you should play your hands in a passive and timid manner. It just means you should be cautious when playing out of position and try not to overvalue hands. Not 4-betting your premium hands also balances the times you have marginal holdings and call his 3-bets. This is very important because it discourages Villain from betting multiple streets after you call pre-flop and call his continuation on the flop. One lesson you will learn is that playing PLO out of position against an aggressive opponent is neither profitable nor fun.

Calling 3-Bets

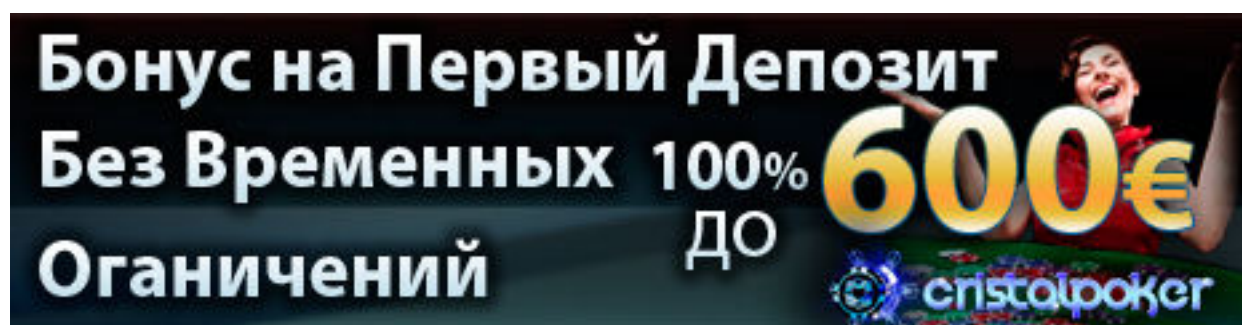
Because position is so important, and the pre-flop equity difference is small between hands, you should defend a lot of 3-bets in position. When first starting out, defend with whatever hands you are comfortable with. It is common to defend 50% of your opening hands. As you become more comfortable with PLO, you can move toward 75%. For some players, this percentage can be as high as 90% and still allow them to win. In fact, in HU PLO games, defending with 90% of your opening range is standard.

You should also fold a lot to 3-bets when out of position. It cannot be over-emphasized how important position is in PLO so always try to make sure you are in position as often as possible, especially in huge pots. It should also be noted that although the calling 3-bet percentages seem outrageous in NLHE, they are normal in PLO.

Calling 4-Bets

3-betting in position is a very profitable play that is hard for anyone to counter. Naturally, you should increase your 3-betting frequency as you improve. Some opponents will fold to 3-bets all day. Some will call and almost always check-fold missed flops. Some will play back and will start 4-betting light. Thus, it is important to know what to do in these situations. The best approach is to learn the math behind 4-bet pots. Don't worry, the math is not complicated and has the same difficulty as Algebra.

The following simulations will give you an idea on how to determine whether calling a 4-bet is profitable or not. To keep the situation simple, the stack sizes are 100BB. Once you have an idea how to figure out the post-flop EV of calling a 4-bet after you 3-bet, you can adjust the stack sizes to your liking.



Example 2.1: \$5/\$10 6-max

SB: \$1000

BB: \$1000

UTG: \$1000

MP: \$1000

CO: \$1000

Hero (BTN): \$1000

Preflop: Hero is BTN with 4♠5♠6♦7♦

2 folds, CO raises \$35, Hero raises to \$120,
CO raises to \$375, Hero ???

In Example 2.1, after Villain 4-bets, it is \$255 for us to call. Assuming Villain has AAxx and will auto-shove on almost any flop, is this a call pre-flop? Before answering the question, let's look at a graph of the equity simulation between 4♠5♠6♦7♦ and AAxx. You can get the graph by clicking the graph button instead of the simulation button at propokertools.com. This is a very important feature and will be a great help to your PLO game.

Omaha Hi Simulation Editor
1.0 ([instructions](#) / [FAQ](#))

board:

hand 1:

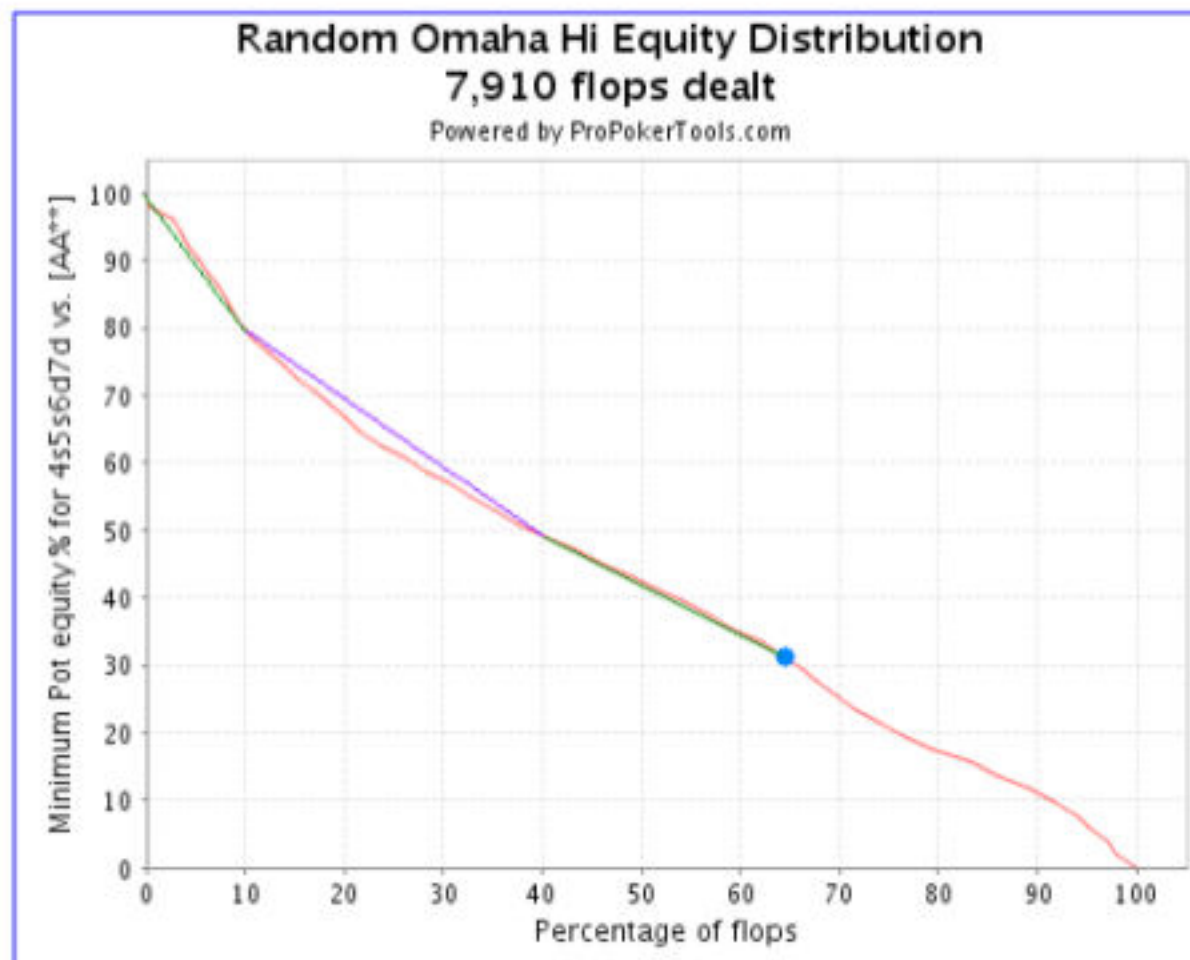
hand 2:

hand 3:

hand 4:

hand 5:

The y-axis is the equity of 4♠5♠6♦7♦ versus AAxx and the x-axis is the percentage of flops for each equity.



After Villain 4-bets to 375, he will have 625 left. The pot size on the flop will be $375 + 375 + 15 = 765$. Once Villain shoves, the pot will be $765 + 625 = 1,390$. We will need $625 / (1390 + 625) = 31\%$ equity to break even. We want to determine whether calling a 4-bet is +EV. Our call is +EV if our post-flop EV is larger than the amount we need to call the 4-bet.

The equation below calculates whether calling pre-flop with the intention of calling the auto-shove on the flop when we have equity to play on is +EV.

$$\text{EV (post-flop)} = \text{Call\%} * (\text{Total_Pot_Size} * \text{Avg_Equity} - \text{Flop_Shove})$$

- **Call%** is the percentage of flops where we have enough equity to call.
- **Total_Pot_Size** is the total amount after we call a flop shove.
- **Avg_Equity** is our average equity when we call the flop shove.
- **Flop_Shove** is the amount Villain shoves or the amount we have to call, whichever is less.

a. According to the graph, we can call 64% of flops because on these flops, our equity will be 31% or higher. Thus, Call% equals 64%. You can get this information by looking for a blue dot on the graph.

b. To figure out Avg_Equity, we have to break the graph into smaller segments to have a more accurate calculation. On graph 1, we divided the graph into segments where each segment kind of has its own slope. The more segments we have, the more accurate our Avg_Equity will be. For Example 1, we will use three segments and color each segment green or purple. The color choice simply shows where each segment begins and ends. You can use as many segments as you would like. It is recommended that you use a minimum of three.

c.

$$\begin{aligned}\text{Avg_Equity} &= 10/64 * [(98+80) / 2] + 30/64 * [(80+48) / 2] + 24/64 * [(48+31) / 2] \\ &= 10/64 * .89 + 30/64 * .64 + 24/64 * .39 \\ &= .59\end{aligned}$$

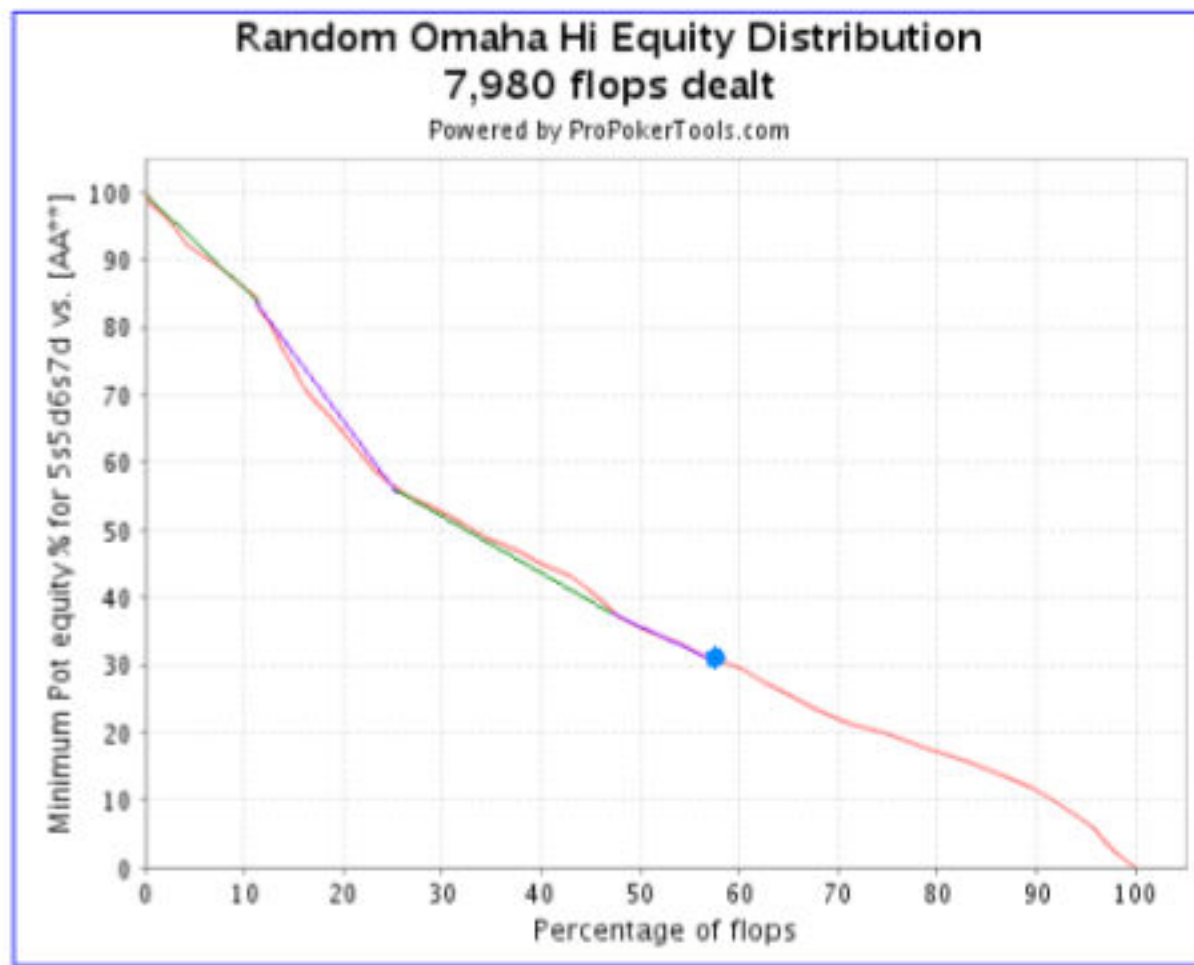
As you can see from the equation, the first segment covers 10% of flops and this segment has an average of 89% equity. The second segment covers the next 30% of flops and this segment has an average of 64% equity. The third segment covers 24% of flops and this segment has an average of 39% equity. It is important that sum of percentages in these segments equal the percentage of flops we can call or the equation is wrong. In this case, the sum of percentages is 64%.

d.

$$\begin{aligned}\text{EV}(\text{post-flop}) &= .64 [2015 * \text{Avg_Equity} - 625] \\ &= .64 (2015 * .59 - 625) \\ &= .64 (563.85) \\ &\sim 361\end{aligned}$$

The post-flop EV for calling the 4-bet is \$361. Since our pre-flop call cost us \$255, our EV is \$361-\$255 = \$106. Thus, whenever we have double suited rundowns and our 3-bet gets 4-bet, we should call and get it in when we have a piece of the flop. Considering that $4\spadesuit 5\spadesuit 6\diamondsuit 7\diamondsuit$ has 37.48% equity against AAxx on a board of $K\spadesuit 7\clubsuit 2\heartsuit$ and we only need 31% equity to continue, the requirement for having a piece isn't too stringent.

Example 2: 5♠5♦6♠7♦ versus AAxx



a. According to the graph, we can call on 57% of flops. Thus, Call% equals 57%.

b.

$$\begin{aligned}
 \text{Avg_Equity} &= 12/57 (99+85/2) + 13/57 (85 + 55/2) + 21/57 (55+46/2) + 10/57 (45+33/2) \\
 &= 12/57 * .92 + 13/57 * .7 + 21/57 * .505 + 10/57 * .39 \\
 &= .608
 \end{aligned}$$

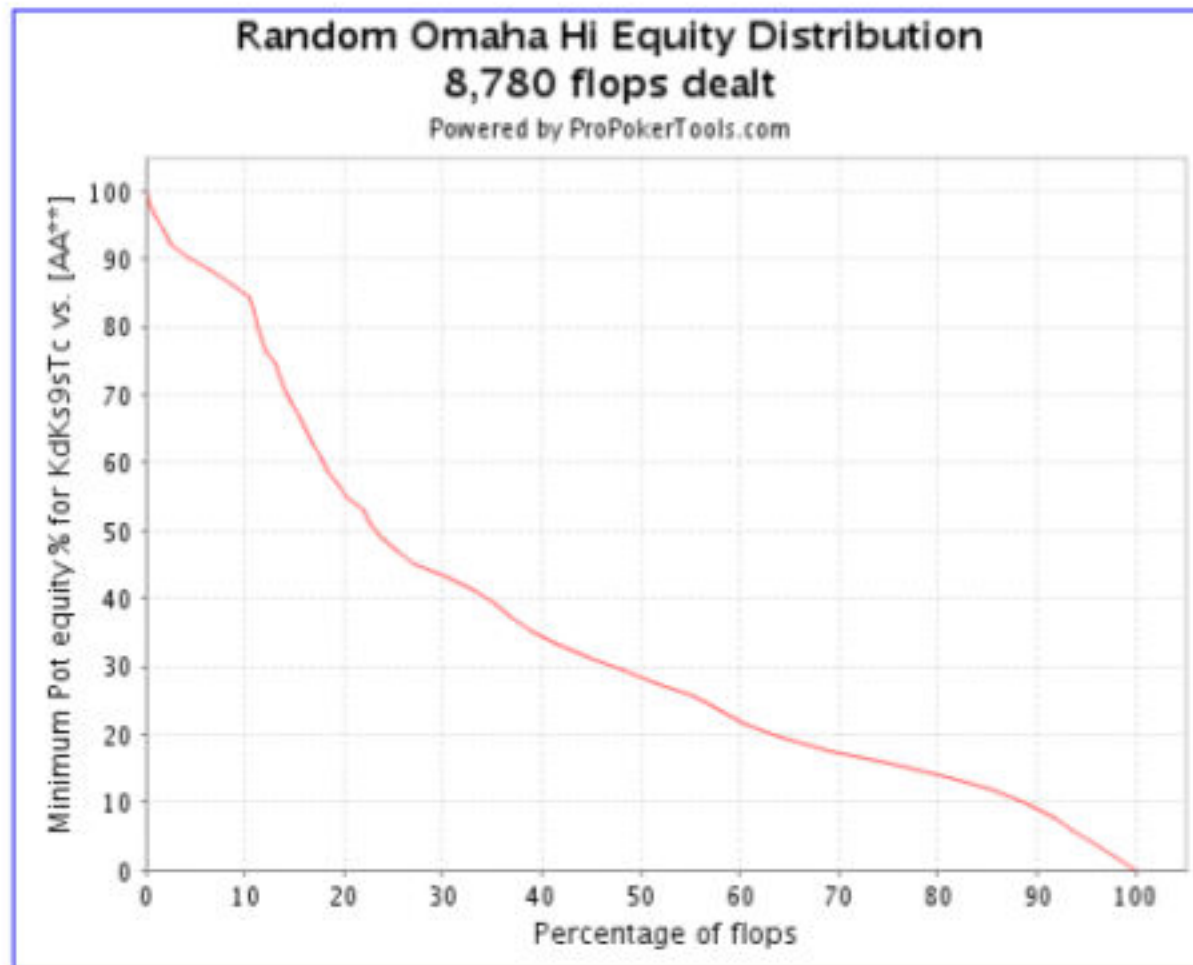
Since this graph has more lumps than the previous graph, it is better to use more segments. For this example's Avg_Equity calculation, the number of segments is four.

c.

$$\begin{aligned}
 \text{EV (post-flop)} &= .57 [2015 * .608 - 625] \\
 &= .57 * 600.12 \\
 &= 342
 \end{aligned}$$

Although 5♠5♦6♠7♦ has less equity than 4♠5♠6♦7♦, it is still a call pre-flop.

Example 3: K♦K♠9♠T♣ versus AAxx



a. According to the graph, we can on 46% of flops. Thus, Call% equals 46%.

b.

$$\begin{aligned}
 \text{Avg_Equity} &= 3/46 * [(99+92)/2] + 8/46 * [(92+85)/2] + 9/46 * [(85+55)/2] + \\
 &\quad 15/46 * [(55+40)/2] + 11/46 * [(40+31)/2] \\
 &= 3/46 * .955 + 8/46 * .885 + 9/46 * .7 + 15/46 * .475 + 11/46 * .355 \\
 &= .593
 \end{aligned}$$

For this example's Avg_Equity calculation, the number of segments is four.

c.

$$\begin{aligned}
 \text{EV (post-flop)} &= .46 * [2015 * .593 - 625] \\
 &= .46 * (569.9) \\
 &= 262
 \end{aligned}$$

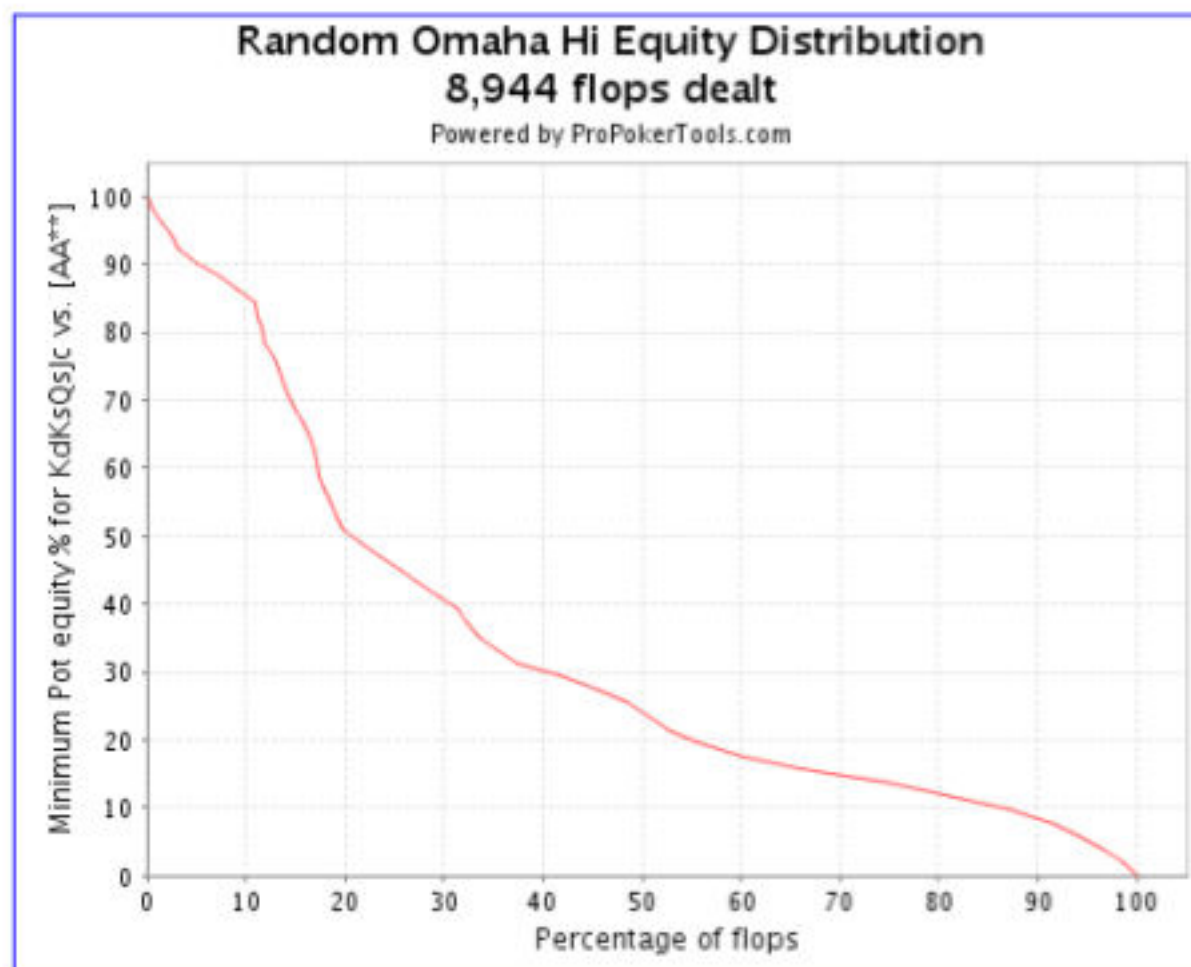
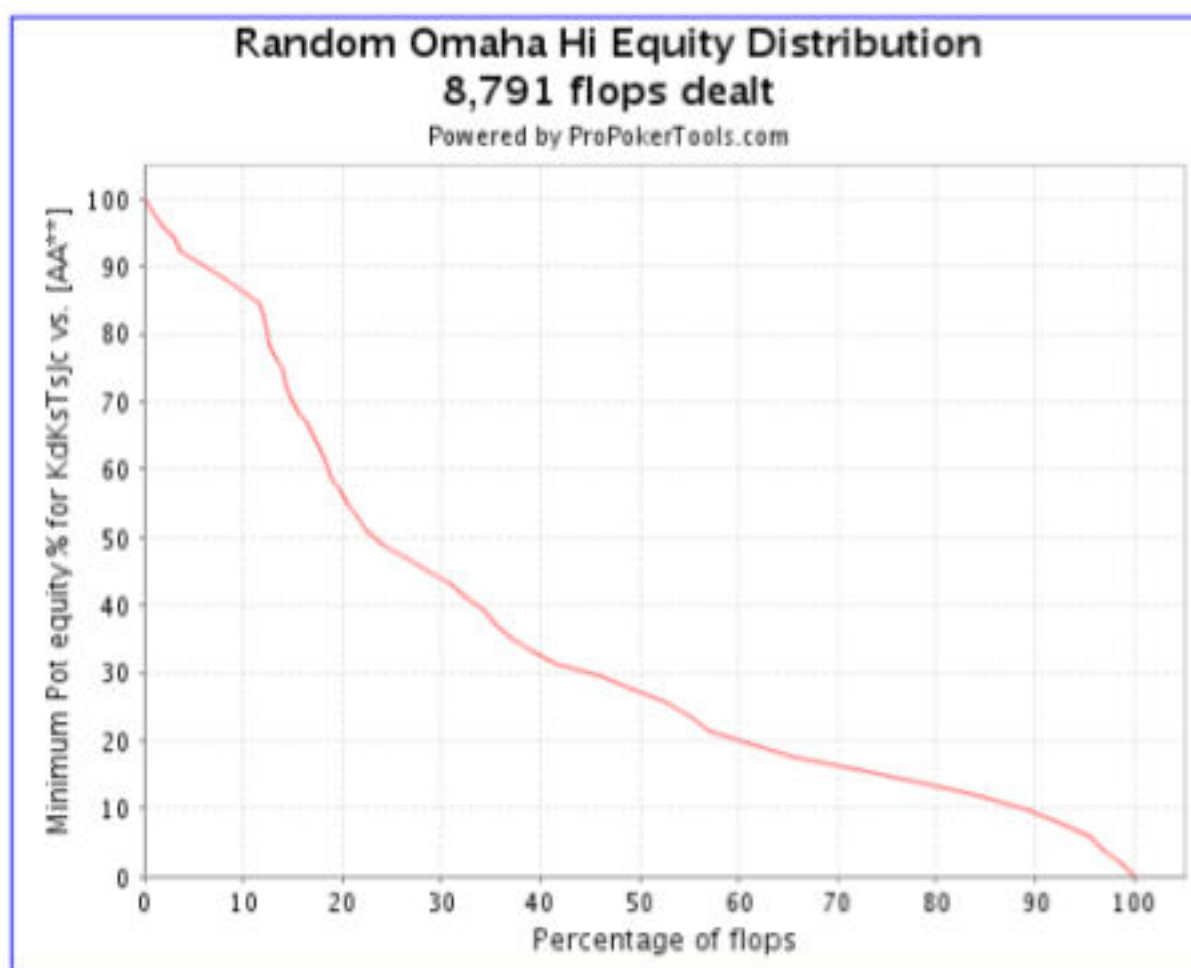
From the calculation, calling a 4-bet with K♦K♠9♠T♣ is barely +EV.

Below are two graphic simulations of $K\spadesuit K\heartsuit J\clubsuit T\clubsuit$ versus $AAxx$ and $K\spadesuit K\heartsuit Q\clubsuit J\clubsuit$ versus $AAxx$. One interesting note is $K\spadesuit K\heartsuit 9\clubsuit T\clubsuit$ has more flops – with 30% equity – to continue versus $AAxx$ than $K\spadesuit K\heartsuit J\clubsuit T\clubsuit$ and $K\spadesuit K\heartsuit Q\clubsuit J\clubsuit$. As you may have guessed, it is because 9T can form a straight without an ace. $K\spadesuit K\heartsuit J\clubsuit T\clubsuit$ can form more straights than $K\spadesuit K\heartsuit Q\clubsuit J\clubsuit$ so it has a higher equity versus $AAxx$.

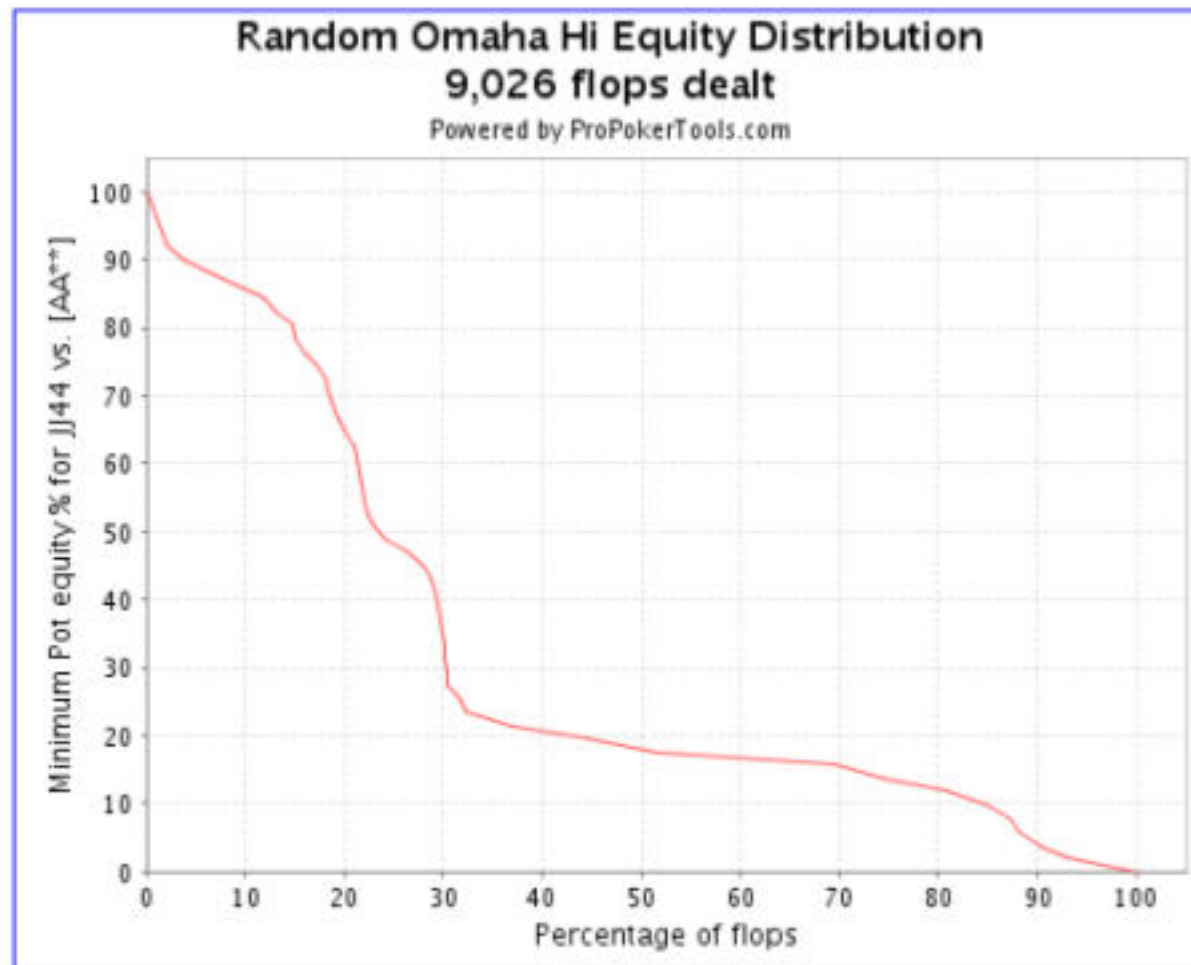
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Example 4: JJ44 versus AAxx. JJ44 is based on the average between the times JJ44 is unsuited, single-suited, and double-suited.



a. According to the graph, we will be able to continue on 30% of flops. [I don't see the dot or the segments here. *** Intentionally left out the dot and segments so people can figure it out on their own]

b.

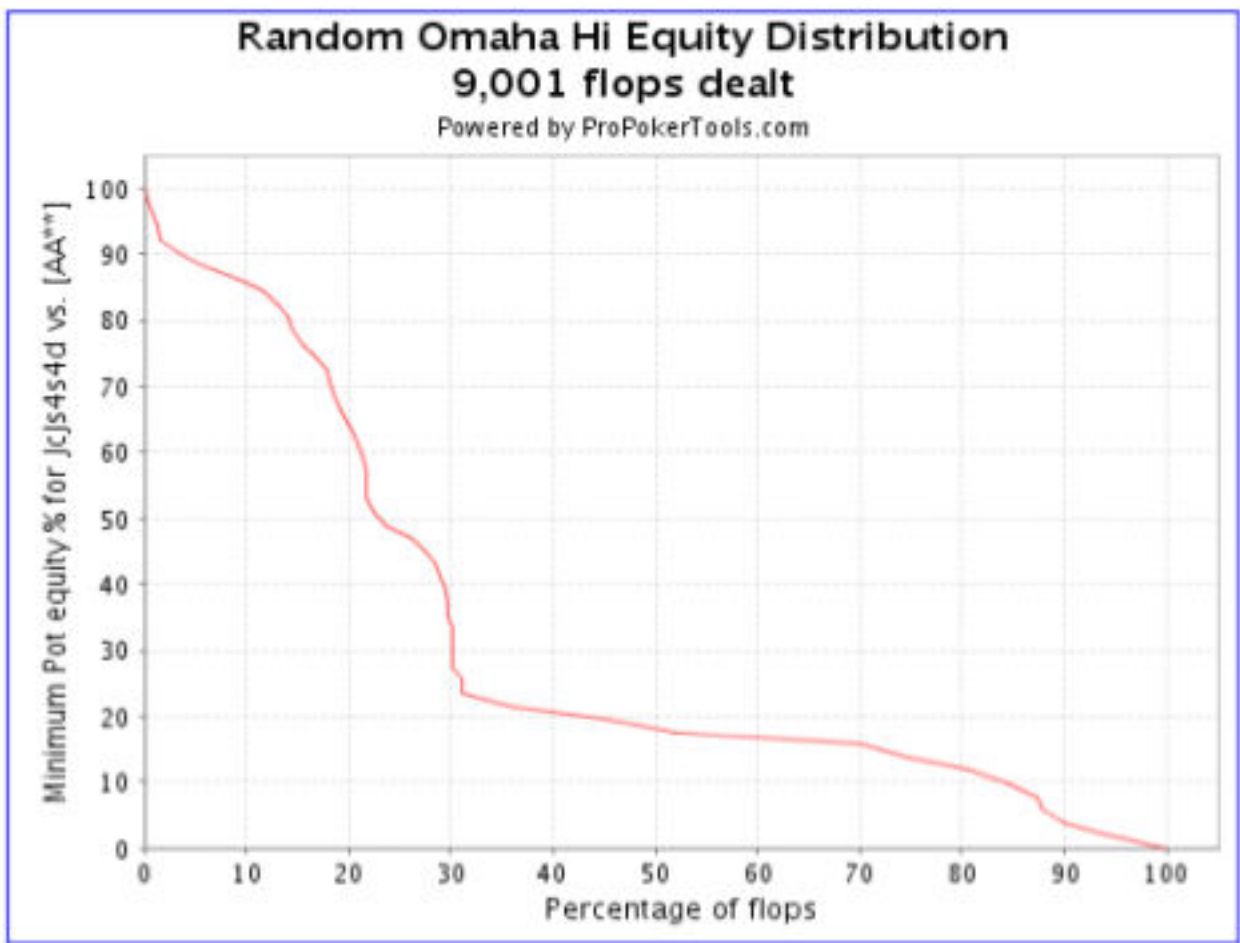
$$\begin{aligned} \text{Avg_Equity} &= 3/30 * [(99 + 93)/2] + 9/30 * [(93 + 85)/2] + 8/30 * [(85 + 65)/2] + \\ &\quad 3/30 * [(65 + 50)/2] + 7/30 * [(50 + 33)/2] \\ &= 3/30 * .96 + 9/30 * .89 + 8/30 * .75 + 3/30 * .575 + 7/30 * .415 \\ &= .71 \end{aligned}$$

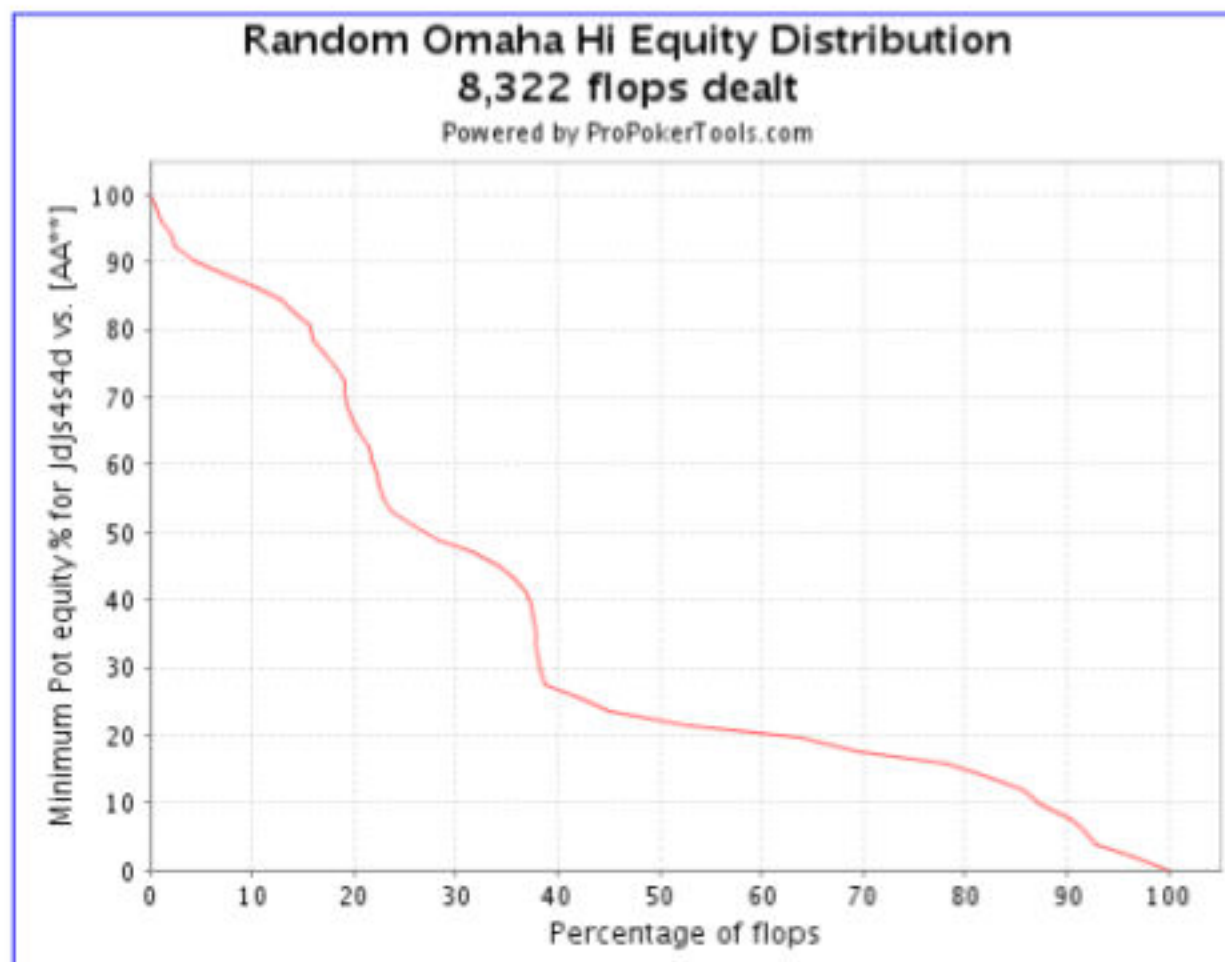
c.

$$\begin{aligned} \text{EV}(\text{post-flop}) &= .3 * (2015 * .71 - 625) \\ &= .3 * (805.65) \\ &= 241.7 \end{aligned}$$

Since we need at least \$255 for our call to show a profit, JJ44 is a fold pre-flop. Below are two

interesting graphs regarding JJ44 single-suited and JJ44 double-suited.





An interesting note from the graphs regarding JJ44 is if JJ44 is double-suited, it is barely a call versus AAxx. JJ44 single-suited is borderline and is probably a fold more often than not.

Knowing the post-flop EV of these hands versus AAxx will give you an idea on whether or not you should fold to a 4-bet. For the majority of hands, it looks like it's a call, and you should continue if you get any piece of the board. There is one thing you should take into consideration. This calculation is against any AAxx. If Villain is a tight solid player, a slightly +EV call might turn into a -EV call if he is only 4-betting with premium aces such as double-suited AATJ or AAKQ.

Another reason for passing up a marginal EV situation is PLO is a very swingy game and you may want to want lower your variance. Although you are passing up a tiny bit of EV by folding, you will have fewer swings and will be able to log more hands and earn more if you have an edge in the game. Engaging in a high variance style will give you emotional swings and can prevent you from logging as many hands as you like. Obviously, if you are great at tilt control, then go for it.

Big Cards

Big cards are very valuable in PLO; big cards in this context means T or higher. The main reason is you have more chances to make bigger two pairs and higher straights than with pretty rundowns such as 3456 or 4567. Hands such as AK56 and JQ43 rarely flop top two pair. On the occasions they do flop two pair, it is easy for other hands to catch up. Let's look at a few simulations.

Board: 5♥ 6♥ T♦	
Hands	Equity %
A K 5 6	52.86%
T J Q K	47.14%

Table 6: Even against one pair with overcards, AK56 is barely ahead.

Board: A♥ K♥ 7♣	
Hands	Equity %
A K 5 6	52%
Q♥ J♥ x x	48%

Table 7: With top two pair, AK56 is barely ahead of a flush draw with a gutshot straight flush draw.

Board: A♥ K♥ 7♣	
Hands	Equity %
A K J T	56.46%
Q♥ J♥ x x	43.54%

Table 8: Top two pair with high card kickers versus a gutshot straight flush draw.

The equity simulations above illustrate another concept that is very important: blockers. By having big cards in your holdings, you reduce the number of outs and backdoor draws your opponent may have, effectively lowering your opponent's equity. Since PLO is a game of small edges, any factor that can increase your equity is important, especially when you are playing for stacks so often.

The Mighty Ace

It is almost unfair how strong an ace is in PLO. When first playing, it is not bad to use a strategy of folding everything except the top 30 hands and any hand that has a suited ace; you will always have decent equity in the pot. There is also a chance your opponent is holding a king high or queen high flush draw and will be crushed by your naked flush draw.

As an example of how strong a nut flush draw is in PLO, it has 64.55% equity against a wrap with a flush draw. Before you think this is standard, the same wrap with flush draw is a favorite over a set. Below are some simulations.

Board: 9♣ 6♣ J♥	
Hand	Equity %
K♠ 3♣ T♣ Q♠	50.37%
J♦ J♠ 4♥ 4♠	49.63%

Table 9: A wrap with a flush draw is a coin-flip versus top set.

Board: 9♣ 6♣ J♥	
Hand	Equity %
K♠ 3♣ T♣ Q♠	34.55%
A♣ 8♣ 9♥ 2♣	64.55%

Table 10: Nut flush draw crushes a wrap with a lower flush draw.

Having an ace also allows you to bluff on flush possible boards. Because many players often have the nut flush when they bet bet bet on flush possible boards, you will often get credit if you bluff the river after betting the flop and turn. Your opponent might have called the flop and turn with two pairs or a set, hoping to fill up by the river. Once he doesn't fill up, he will fold.

Chapter 3: Key Concepts

Power of Position

Positional advantage is very important in PLO. Here are the reasons why position is the number one factor you should consider before playing a hand.

Representing Hands

Each PLO hand is composed of six Hold 'Em hands and naturally, you are going to make a lot of hands. To be specific, Hold 'Em has 169 distinct starting hands while Omaha has 16,432 distinct starting hands. Below is a chart of how many hands you can make on each street.

Street	Hold 'Em	Omaha
Flop	1	6
Turn	6	24
River	21	60

What this means is you will be able to represent a lot of hands in PLO, even if it means your range is polarized to nuts or air. There are a lot of nut hands in PLO, so you will get a lot of credit when you bluff. Having position also allows you to estimate your opponent's range better after certain action on the turn. For example, on the turn, if stacks are shallow and your opponent check-calls, he is most likely on some type of huge combination draw that has around 40% equity against a set. This makes your river play very easy. Although such a range analysis is simple and works mostly on mediocre players, luckily for you, in the game's current state, there are lot of them.

Equity Realization

Equity realization is staying in the hand with a draw until all the cards are dealt. Having the ability to “realize” your equity is another reason why position is very powerful. If you are drawing, on any street before the river, you usually have around 30-35% equity against your opponent's range. What this means is on the turn, when you are at the bottom of your range and think your opponent has a decent hand, check it back and hope the river improves your hand. Since you usually have about 30-35% equity in the pot, your hand will improve enough times to realize this equity.

Such a play is impossible if you are out of position. With holdings where you have decent equity against your opponent's range, you can't call due to the fear of facing a river bet. Thus, you have to fold against your opponent's turn bet despite getting the correct odds. What this means is you don't get to realize your equity. Let's go over an example to illustrate the above situation.

On a board of $4\spadesuit 5\clubsuit 9\diamondsuit T\diamondsuit$, you have $6\spadesuit 7\clubsuit A\spadesuit 2\heartsuit$ and your opponent has $T\spadesuit 5\heartsuit A\clubsuit K\clubsuit$. If you are in position with such a holding, you can hit your 3 or 8 some of the time to realize the equity you have in the pot. The reason is your opponent will sometimes check to you on the turn. If you are out of position, your chance of realizing this equity is low because $T\spadesuit 5\heartsuit A\clubsuit K\clubsuit$ will almost always bet in position. So although you have great equity in the pot and are likely getting the correct odds to call, you still have to fold because you are out of position and the hand doesn't end there; you still have to play the river. Against decent opponents who don't give free showdowns or check back when a draw hits, it is very difficult to play the river profitably out of position and you are going to make mistakes. If you fold when you should call, or call when you should fold, it will cost you money..

This realized equity concept isn't as important in NLHE because by the turn, if you are behind, you probably have about 15-18% equity against your opponent's range. So even if you take a free card in position, you won't hit (or realize your equity) that often. In PLO, you will improve more than 30% of the time against your opponent's range. To emphasize how valuable 30% equity is, that percentage is almost as much as a bare flush draw that gets it in on the flop in NLHE.

Bet For Protection

A common question to ask when you are betting is whether you are value-betting or bluffing. In NLHE, such a question is easy to answer because you will almost always know whether it is one or the other. In PLO, such is not the case. The reason is that in PLO, there are numerous situations where you have a marginal holding and only better hands will call if you bet. By the usual definition, since no worse hands will call you, it means you are bluffing. Not exactly.

In PLO, your opponent almost always has a lot of equity in the pot when you have a marginal hand such as two pair. To put things in perspective, on a board of $4\spadesuit 5\clubsuit 9\diamondsuit T\diamondsuit$, a random PLO hand has 33.74% equity against $T\spadesuit 5\heartsuit A\clubsuit K\clubsuit$. In Hold 'Em, a random hand has only 8.68% equity against $T\spadesuit 5\heartsuit$ on the same board. Thus, you should often bet to protect your hand. Such a concept isn't as relevant in NLHE because in NLHE because it is very difficult for hands to catch up if they are behind on the turn.

A common line to take is to bet-fold a lot of turns with your marginal holdings. One reason is players like to fold when facing a bet on the turn and they don't have a strong hand. Another reason is most players don't know whether to check-call or to check-raise. Thus, most of their turn decisions are polarized. They will check-raise with a strong made hand that won't get called by worse and will check-call with their draws and marginal holdings. Thus, they give away their hands. Knowing this makes it very easy to play on the turn when you are holding a two pair hand and don't know whether to check behind or bet. As a general of thumb, if you have a marginal holding with no redraw, it is better to err on the side of bet-folding the turn. If Villain calls, you can always check behind on the river. Remember, you don't want your opponent to realize his equity.

Slowplaying

Because hands can easily improve in PLO, it is rarely correct to slowplay the current nuts. You don't want your opponents to catch up and realize their equities. Moreover, the turn and river can present a lot of scary cards that may cause you to lose action from hands that could have played for stacks. Another reason is some of your opponents have enough equity to get it on the flop because of their backdoor draws. However, once the turn is a brick, their equities decrease dramatically and slowplaying might have cost you a stack you could have had. Nevertheless, there are a few situations

where you can slowplay with the nuts on the flop because it is better to wait for a safe turn to put more money in when your equity is higher.

In Example 3.1, you have top set on the flop. You can't go wrong check-raising Villain's continuation bet. However, considering the categories of hands we are going against, if we get it in on this flop, we are not ahead by much. Against a hand such as $Q\clubsuit T\clubsuit 9\spadesuit 2\spadesuit$, we have 49.76% equity. On a blank turn such as a $3\diamondsuit$, our equity improves to 57.5%. Although we lose value from hands such as 66xx and 88xx on the flop, we will get value from them on a blank turn. Those hands are probably going to check back the turn a decent amount if the straight or flush draw hits. Even if the turn doesn't go check-check, we can still check-call one more street due to implied odds. Villain might bet the turn for protection and will check back the river, giving us a cheap showdown.

Check-raising the flop also bloats the pot with many scary turn and river cards to come. With 150BB stacks, it is difficult to make the right decision on a club or a card that completes the straight such as a 4, 5, 7, 9, T, or Q. In this situation, it is generally better if you think of your hand as a drawing hand, as in drawing to a full house. Having such a thought in mind will help you play the situation better.

In Example 3.2, we flop the nuts and have position. On a drawy board such as this one, it is natural that we want to raise the flop to protect our hands, especially if we have extensive NLHE experience. However, before raising, we should consider our Villain's range when he is betting into this type of flop. He is rarely bluffing, and if he is betting for value, he will sometimes have a straight with a redraw to a flush or full house.

Example 3.1: \$3/\$6 6-Max

SB: \$365

Hero (BB): \$987

UTG: \$634

MP: \$590

CO: \$298

BTN: \$1123

Preflop: Hero is BB with $J\heartsuit J\spadesuit Q\spadesuit A\heartsuit$

3 folds, BTN raises to \$21, 1 fold, Hero calls \$15

Flop: (\$45) $8\clubsuit 6\diamondsuit J\clubsuit$ (2 players)

Hero checks, BB bets \$45, Hero ???

Example 3.2: \$3/\$6 6-Max

SB: \$522

BB: \$400

UTG: \$387

MP: \$511

CO: \$165

Hero (BTN): \$1123

Preflop: Hero is BTN with $A\clubsuit T\heartsuit 6\clubsuit 9\heartsuit$

1 fold, MP raises to \$21, 1 fold, Hero calls \$21, 2 folds

Flop: (\$51) $8\spadesuit 7\diamondsuit J\spadesuit$ (2 players)

MP bets \$45, Hero ???

Thus, in this situation, it is better to play a small pot with our holding. However, let's assume our hand is A♠T♥6♣9♠. With a nut flush redraw, it is almost never correct to slowplay in this spot. There are too many scary turn cards that would shut Villain down and cost us our chance of winning his stack. Also, when Villain is betting this flop, his range is strong. So we want to get in as much money in as possible if we have the nut straight with a monster redraw..

There are also situations where your range's strength is obvious and thus you don't want to slowplay. The most common situations are illustrated below.

In Example 3.3, I re-raise a button opener with A♦A♣8♠9♣ from the blinds. I make a small continuation bet on the flop and decide to be tricky and check the turn. As I gain more experience, I realize this is a situation where I should almost never check. When I re-raise pre-flop, Villain puts me on AAxx, high cards, or rundowns. When I bet the flop, my range remains the same. When I check the turn, I am more likely to have rundowns than AAxx or high cards.

If Villain has something like AK9T, he is not going to bet the turn very often, unless he is bet-calling. If he is bet-calling, he will call my turn bet anyway so there is no need to trap him. Thus, he will check back the turn a lot in this type of situation. He will realize there is a chance I am slowplaying. Rundowns don't have many outs against him, unless I have a monster combination draw. But if I have a monster combination draw, with so much money out there and with a great board to represent AAxx, I would've bet-called. Thus, I rarely have hands such as 789T or 89TJ in this spot.

It is important to recognize that on Ace high flops in re-raised pots, players rarely float. They will give you credit for a pair of aces with a good kicker or a set of aces. When they call, their range is usually Axxx where x is a big card or they have two pair. So when you check the turn to go for a check-raise, opponents will check behind with their medium to strong made hands a majority of the time.

Example 3.3: \$3/\$6 6-Max

SB: \$390

Hero (BB): \$800

UTG: \$123

MP: \$902

CO: \$1287

BTN: \$734

Preflop: Hero is BB with A♦A♣8♠9♣

2 folds, CO raises to \$21, 2 folds, **Hero raises to \$66**, CO calls \$45

Flop: (\$135) A♠ 7♥ 2♣ (2 players)

Hero bets \$78, CO calls \$78

Turn: (\$291) A♠ 7♥ 2♣ J♦ (2 players)

Hero checks ...

In Example 3.4, I donk bet the flop and get raised. Against aggressive opponents, 3-betting here is fine as well. Due to stack sizes and Villain's history of passive play, I decided to call. The turn is a beautiful 2♠. My instinct tells me to check the turn because that's what you almost always do when you hit your flush in NLHE; you check. However, in PLO, you should almost always donk bet. Sets and two pairs aren't going to bet the turn once you check; a low turned flush might not bet either. By donk betting, your opponent will call at least one bet with a low flush. If your opponent has a set, he will call as well.

The key to this example is to think of your range when you call the flop raise. You either have a wrap, a high flush draw, or a set. The turn completes the flush draw so your opponent isn't going to bet unless he suddenly spazzes out and decides to bet. The majority of the time, he is going to check back a lot of made hands and bet only when he is holding a flush or in a few cases, running a pure bluff.

Freerolling

Freerolling is when two players have the same made hand but only one player can draw to a better hand. Although such situations occur, they don't take place as often as people think. For the times they do take place, it is pretty easy for you to notice it if you pay attention.

In single-raised pots, warning bells should go off in your head when the flop comes 6♠ 7♠ 9♣ and there is a lot of aggression from your opponent. Unless your opponent is really bad, he will have at least 8Txx majority of the time. If there are two or more opponents in the pot and there is a lot of action, you should fold if you have a 8Txx with no redraw to a better hand. No one is messing around in this situation.

In re-raised pots with 100BB stacks, there is nothing you can do but get all the money in when you flop a straight. Situations will exist where you are getting freerolled, but with so much money in

Example 3.4: \$3/\$6 6-Max

SB: \$437

Hero (BB): \$912

UTG: \$248

MP: \$995

CO: \$289

BTN: \$772

Preflop: Hero is BB with A♠K♣5♠T♥

1 fold, MP raises to \$21, *2 folds*, SB calls \$18, **Hero calls \$15**

Flop: (\$63) 9♠ 6♠ 4♥ (3 players)

SB checks, **Hero bets \$54**, BB raises to \$202, *1 fold*, **Hero calls \$148**

Turn: (\$467) 9♠ 6♠ 4♥ 2♠ (2 players)

Hero checks ...

the pot, it is tough and probably incorrect to fold against most opponents. In re-raised pots, the reasons are: people are more aggressive because they want to maintain their pre-flop aggression; there is more money in the pot so they are more likely to bluff and semi-bluff to win the pots; there's also more adrenaline. And of course, they put you on AAxx and are either trying to move you off your hand or think they have great equity against it.

Example 3.3 is a classic situation where you have to slowplay, especially if there is more than one opponent, to avoid getting freerolled in a big pot. If there is any action on this flop, your hand is crushed. A marginal drawing hand such as T♦J♦xx has 51.21% equity against your holding. The majority of the time though, whenever you are getting a lot of action on this flop, you are against a straight with a flush or full house redraw. Thus, you should try to keep the pot as small as possible.

Example 3.3: \$3/\$6 6-Max

SB: \$299

BB: \$888

UTG: \$732

Hero (MP) : \$696

CO: \$194

BTN: \$525

Preflop: Hero is MP with 9♣A♣T♣K♠

UTG raises to \$21, **Hero calls \$21**, 1 fold, BTN calls \$21, 2 folds

Flop: (\$45) 6♦7♦8♥ (3 players)

UTG bets \$45, **Hero ???**

Value-Betting

There isn't a lot of light value-betting in PLO. One reason is people don't make a lot of hero calls. Another reason is people play their hands passively when they don't have the nuts. Thus, a majority of the time, you are "value-owning" yourself if you bet the river too thin. For those who don't know what value-owning means, it is a situation where you think you are value-betting and are praying for a call when your opponent tanks, only to see he flips over the fourth nuts with you holding the fifth nuts. This will happen very often when you first play PLO.

The most common "value-owning" situations in PLO are when you try to value-bet two pair or trips on the river in a single-raised pot. After calling the flop and turn, it is rare for your opponent to call your river bet with worse than two pair. If the flop or turn goes check-check, then there is more

likelihood that your two pair or trips has some value for betting on the river. If not, check behind.

A common line of thought that usually gets NLHE players in trouble is balancing. It is not that balancing is a bad concept; balancing is a great concept. It is a bad concept when you don't know what you are trying to balance, especially when you are new to the game and don't understand the relative strength between holdings. For example, the board is 5♠8♣T♥6♠T♠. On the river, Villain checks to you and you are holding A♥T♦Q♥K♣. Barring specific reads, this is a check back most of the time. The reason is no worse hand is calling you. A NLHE player will think, "I have trips. I should bet here for value to balance out my bluffs in future hands." His intention is correct but he's doing it in the wrong situation. Value-betting with ATxx on that board is similar to value-betting with fourth pair on a board of KT852 in NLHE.

It is important to note that because PLO allows you to represent so many strong holdings on the river, most opponents will be afraid of the nuts, so a hand such as 79xx is considered the bottom of your value-betting range. 74xx is borderline and you will find most players checking back the river a lot with this holding. The same idea applies for a situation when you are holding a nine high flush on the river. You are rarely getting called by worse. On the same note, you should fold a lot of jack high flushes when facing a river bet. Against some opponents, on a board of 3♠J♠T♦5♠2♣, you might have to fold a hand as good as a queen high flush if your opponent was betting on the flop and turn and is following up with a river bet.

A king high flush is harder to fold because there is a slight chance that your opponent is value-betting with queen or jack high flushes. Against some opponents, folding a king high flush in this spot is normal.

In Example 3.4, pre-flop, flop, and turn are standard. On the turn, a case can be made for checking behind but there is a chance BB has AAxx or KKxx. He might have a pocket pair along with a spade draw. He could have a Q with undercards too. If we are behind, we will know if he check-raises us on the turn and we can fold. Or he will check-call and we can check behind the river. On this hand, I value-owned myself and tried to get extra value because I had "trips." Of course, no worse hand is calling. BB tanked and ended up calling with A♥Q♥4♦5♦. My only excuse is I was new to PLO.

In Example 3.5, pre-flop, flop, and turn play are standard. We hit our flush on the turn and don't want to give a free card in case Villain has a set or two pairs. He might have a lower flush as well. Once Villain check-calls the turn, his range is mostly sets and flushes. The tough part is we don't know how high his flush is. Since players are more likely to play with higher cards than lower ones, Villain is more likely to have a higher flush. More importantly, when we bet the river, it is rare to see an eight high flush calling us. We might be able to get jack high flush to fold. There is also the chance where Villain might check-call the turn with a set

Example 3.4: \$5/\$10 6-Max

SB: \$1256

BB: \$1407

UTG: \$482

MP: \$345

CO: \$469

Hero (BTN): \$1025

Preflop: Hero is BTN with Q♦8♣T♥9♥

3 folds, Hero raises to \$35, SB calls \$35, BB calls \$35

Flop: (\$105) Q♠ 2♦ Q♣ (3 players)

SB checks, BB checks, Hero bets \$88, I fold, BB calls

Turn: (\$281) Q♠ 2♦ Q♣ 6♠ (2 players)

BB checks, Hero bets \$211, BB calls \$211

Turn: (\$703) Q♠ 2♦ Q♣ 6♠ K♥ (2 players)

BB checks, Hero ???

Example 3.5: \$3/\$6 6-Max

SB: \$678

BB: \$902

UTG: \$294

MP: \$167

CO: \$240

Hero (BTN): \$702

Preflop: Hero is BTN with 6♦7♦7♣T♣

3 folds, Hero raises to \$21, I fold, BB calls \$15

Flop: (\$45) 6♠ 9♣ K♣ (2 players)

BB checks, Hero bets \$39, BB calls \$39

Turn: (\$123) 6♠ 9♣ K♣ 2♣ (2 players)

BB checks, Hero \$108, BB calls \$108

Turn: (\$339) 6♠ 9♣ K♣ 2♣ 8♥ (2 players)

BB checks, Hero ???

and the naked A♣ and turn it into a bluff. Obviously, such is an advanced play and it's a reach to expect players to do that in the low and mid-stakes games. I ended up betting \$169 so Villain can talk himself into calling with straights, lower flushes, and sets. I didn't realize that those hands almost never call a river bet. Villain called with Q♣J♠J♥8♣ and took down the pot.

Player Tendencies

Player tendencies are an important concept in any poker game. Due to the small differences in equity between PLO hands, this concept is more valuable than in NLHE. In NLHE, sometimes you cannot fold due to the absolute strength of a hand. For example, if you re-raise with AA pre-flop and the flop is not something ridiculous such as KQJ monotone or 9TJ, it is probably correct to never fold if stack sizes are 100BB and below.

In PLO, knowing a player's tendencies can swing your marginal holdings from a call to fold or vice versa. Obviously, this concept applies to any poker game but it is more important in PLO because you are playing for stacks so often that small edges add up quick. On a flop of 9♣6♥3♦, it is standard to bet-call with holdings such as AAxx and AKQ9 against aggressive opponents who can raise your flop bet with a wide range; it is also standard to bet-call on two-tone flops such as 9♣6♣3♦ or T♦6♦4♥ as well. However, if your opponent is tight and passive, you will burn money calling off all your chips here. You are almost always behind when the money goes in. If you are ahead, your opponent will have at least 45% equity in the pot. On a board of 9♣6♥3♦ with you holding AAxx, a hand as weak as 79TQ has 48.29% equity.

The key factor when playing these hands is to recognize how light your opponent is playing against you in re-raised pots. If your opponent is capable of shoving with any 9xxx or Txxx hands, or shoving with weak naked flush draws such as king or queen, you should bet-call. If you have never seen your opponent raise with 9xxx or Txxx or low flush draws, it is best to give him credit. Obviously, if his aggression factor against you is high in re-raised pots, then you should bet-call. If you lose, at least you will have some information on what types of holdings he is raising your flop bet with and you can adjust from there.

Before you think it is too hard to categorize different groups of players, let me tell you that such isn't the case in the SSPLO and MSPLO games. There are usually two groups of PLO players: one

group doesn't mind the variance and plays the game with a very loose aggressive style; the other dislikes variance and will only get it in with the nuts and rarely has a marginal holding in a big pot. There aren't a lot of players who are in between. Obviously, such guidelines are simplified but it should give you a good starting point for developing reads on your opponents. As you gain more history with your opponents, you can add specific reads to their games.

Bluffing

It is rare to see a huge stone cold bluff in PLO, meaning a bluff without a pair or draw. When a huge bluff occurs, the bluffer usually either has a bunch of blockers to the nut straight or a naked Ace on a flush board. Another situation for bluffing is when the river completes a draw that decreases the strength of your opponent's range and increases your perceived range. For example, the river card completes the backdoor flush or the river pairs the board on a very drawy board. In these scenarios, you should turn your marginal made hands into bluffs if your opponent checks after showing aggression on previous streets. It is unlikely he likes the river card and he is probably wondering why he is out of position.

Example 3.6 shows a common situation where you can turn your made hand into a bluff to move off your opponent off the same hand. When Villain bets the turn, he is either bluffing with 88xx and 99xx or he is betting with 89TJ or 9TJQ. He can obviously have sets such as TTxx and 77xx as well. Once he checks the river, he is either giving up because your hand looks like it is a set drawing to a full house or the same straight. The problem is he doesn't know what you have when you call the turn. On the river, once Villain checks, he rarely has a full house. The reason is unless you improve, you are not

Example 3.6: \$5/\$10 6-Max

SB: \$824

BB: \$1211

UTG: \$688

MP: \$1129

Hero (CO): \$1256

BTN: \$490

Preflop: Hero is CO with A♣T♦9♦8♣

1 fold, MP raises to \$35, Hero calls \$35, 2 folds, BB calls \$25

Flop: (\$110) 7♥ T♣ 3♠ (3 players)

BB checks, MP bets \$100, Hero calls \$100, 1 fold

Turn: (\$310) 7♥ T♣ 3♠ 6♦ (2 players)

MP bets \$285, Hero calls \$285

River: (\$880) 7♥ T♣ 3♠ 6♦ 3♥ (2 players)

MP checks, Hero ???

going to bet this river if he checks to you. You are checking behind 45xx or 89xx often because no worse hand is calling you. However, if you know that he rarely has a full house and there is a chance he is betting the turn with the same straight, you can bet the river to move him off his straight. Unless he has some sick read on you, it will be very hard for Villain to call. He is either chopping or he is losing. After all, what random hands that get to the river that he can beat?

When you first play, you will often miss out on these types of spots and will check back the river a lot. However, our analysis shows that he rarely has a full house so betting is profitable. Obviously, you shouldn't go out of your way to float the flop and turn hoping the river is a scare card so you can bluff a player off his hand. You must be patient and when the occasion arises, you can use it.

A situation where bluffing with blockers is profitable is on the turn when the most obvious draw completes. For example, you hold 8♥8♣xx and the board is 5♣6♥K♦9♠. The turn completes the straight draw. Betting or raising the turn is profitable if you do it once in a while. If the river comes a blank – a card that doesn't pair up the board – firing another barrel is profitable as well. Villain is likely to come over the top on the turn if he has a straight and thus, will be drawing with sets. Of course, there exist Villains who will flat the turn bet or raise with a straight and will call any river. These types of Villains are the exceptions, not the norm, in SSPLO and MSPLO games. A general rule of thumb is to not give them credit for having such an advanced play in their arsenal until proven otherwise.

For situations where you get to the river with a really bad hand and don't know whether to give up or fire one more barrel, it is almost always better to bet than check. One reason is people like to fold to river bets. Secondly, depending on how much you bet, you only need Villain to fold 35~40% of the time to break even. If you check with your bad hand, you will almost always lose. Such simple math is the reason why people should bluff more rivers. Luckily, they don't.

Chapter 4: Common Mistakes

Too Loose From The Blinds

One big mistake novice PLO players make is playing too many hands from the blinds. It is easy to develop a bad habit of defending the blinds too loosely against a cutoff or button opener. After all, you will probably get more than 2 to 1 for your money, your hand rarely draws slim, and is usually less than a 2 to 1 dog. The problem is you are out of position and your opponent can represent a lot of hands while you can't.

Players like to defend with trouble hands such as $Q♥T♥4♣5♣$ and $K♠9♠6♦6♣$, which are really difficult to play out of position and are often dominated by higher draws or made hands. Defending with these hands is analogous to defending with $A9o$ when you are first starting out in NLHE. After all, you have a decent ace with good pot odds. The problem is your draws and made hands are often dominated by better hands.

Trouble Hands

There are a lot of beautiful hands in PLO that don't play well and often get you in trouble because they are often dominated by other hands; a NLHE equivalent would be calling ATo and KJo against a solid player's UTG open.

Trouble hands are single and double-suited small rundowns such as 4556, 5567, and 6778. Although these hands have the potential of making straights and sets, they often get upset and their combo draws are often dominated. Even if they flop the nut straight and some flush draw blockers, they are usually coin-flipping against a flush draw with higher straight draw. We also have to account for situations where they are getting freerolled.

Board: $8♠9♣T♣$	
Hand	Pot Equity
$K♣Q♣xx$	50.41%
$6♣7♣7x8x$	49.59%

This doesn't mean these trouble hands don't have any value; they do. They are good in single-raised pots where Villain has a wider range of hands and doesn't have a bigger flush draw or a straight draw as often. Additionally, you should play them if you open the pot from middle position, the cutoff, and the button. Unless you have a good read on your opponent and are comfortable playing postflop, it is best to fold small single-suited rundowns to a raise. You should fold them from the blinds as well when there is a raiser and no caller.

Knowing how troublesome these hands can be prevents you from overvaluing these hands when first starting out in PLO. Your equity isn't too good against the range that gets it in on a drawy flop. It's easy to get in all the money on a flop of $4\heartsuit 5\heartsuit 9\spadesuit$ holding $6\clubsuit 7\diamondsuit 7\clubsuit 8\heartsuit$ for a straight and flush draw but if we stop and run the equity of that hand against a hand such as $9\clubsuit A\heartsuit J\diamondsuit T\heartsuit$, your equity is only 39.39%. 39.39% isn't bad but in PLO, it isn't good either. Against $99xx$ on the same board, $6\clubsuit 7\diamondsuit 7\clubsuit 8\heartsuit$ has 46.06% equity.

At first, it looks like a cooler because you have an openended-straight flush draw. If you take a minute and put your hand against a possible range that is getting all the money in on that flop, you are rarely a favorite. No decent player will get all their money in on this flop with a made hand worse than $22xx$. Against that holding, your equity is 52.74%. If they do get it in on this flop with a draw, it is inevitably a higher flush draw with at least a pair. Against that range, you have about 44% equity in the best scenario.

Hands that are composed of two Hold 'Em hands such as $8\clubsuit 9\clubsuit T\heartsuit 2\heartsuit$, $K\diamondsuit J\diamondsuit 6\clubsuit 3\clubsuit$, $3\clubsuit 4\clubsuit 6\diamondsuit 7\heartsuit$, and $A\heartsuit K\heartsuit 5\clubsuit 3\clubsuit$ are troublesome as well. The reason is they don't work well together. It is rare for you to have a big straight or top two pair. You rarely have a strong wrap to the nuts and if you hit a straight, it usually on the low end and players can outdraw you. You should only play these hands when you open in the cutoff or the button. Unless it is suited to an Ace, calling a raise with this type of holding when you're not an expert in the game is burning money.

Playing with these guidelines, your pre-flop play percentage should be around 20%. If you decide to play these hands by calling a raise or 3-betting in position, your percentage will increase to the 25% range.

Eye Candy Hands

Eye candy hands are hands that look great, have a ton of potential, but rarely reach their potential. They give the impression that they are good hands and cause you to overplay while in reality, they don't have a lot of value against the range they are up against. The prime examples are $6\heartsuit 6\clubsuit 8\heartsuit 9\spadesuit$, $8\spadesuit 8\clubsuit J\heartsuit Q\heartsuit$, $9\spadesuit 9\heartsuit K\heartsuit Q\clubsuit$, and $9\heartsuit 9\spadesuit J\clubsuit K\heartsuit$; a NLHE equivalent would be calling re-raises with small pocket pairs while stack sizes are 100BB or calling 4-bet pre-flop shoves with medium pocket pairs such as 88 and 99 without specific reads.

Eye candy hands are usually consist of medium pairs with two higher cards. They are more enticing to play when double suited because you can make two flushes. However, they don't have as much value as it appears because they don't hit flops that often. When you do hit a flop, you might overplay your hand with no redraw or a with an inferior draw. When you hit a set, someone might have a higher set. When you hit a pair, it is difficult to improve to two pairs. You won't hit a lot of straights either. Additionally, you don't have a lot of backdoor two pairs, trips, or straights which account for a few percent (5% to 8%) of your equity in the pot. Having backdoor draws may also allow you to continue the hand on the turn.

If you hold $K\heartsuit Q\heartsuit 9\clubsuit 9\clubsuit$ on a flop of $K\clubsuit 8\heartsuit 3\spadesuit$, you can improve with a 9, Q, or K; you can also make runner runner straights with JT or TJ. If you hold $K\heartsuit Q\heartsuit T\clubsuit 9\clubsuit$, you can improve with a 9, T, Q, or K. You also turn a draw with a 6, 7, J, or A. That is a lot of turn cards for you to continue and try to hit the nuts. As you can see, $K\heartsuit Q\heartsuit T\clubsuit 9\clubsuit$ is a lot better than $K\heartsuit Q\heartsuit 9\clubsuit 9\clubsuit$. However, when first playing, the difference between these two hands might not be obvious.

By 3-betting and calling 3-bets with these type of hands (a pair with one suit), your pre-flop percentage will be at around 28%.

Small Edges

Any time stacks are going in, it is rare for one PLO hand to be huge favorite over another. For this reason, 60% equity is considered a huge favorite. Most of the time, two hands are usually 45% versus 55%. Standard coin-flips right? Not exactly. Because you are going to play for stacks so often, these small edges add up quick. If in the majority of pots where stacks are going in you are either a tiny favorite or a huge underdog, you are going to wonder why you run so bad in PLO. Not grasping this concept is a huge leak and most NLHE players who transition to PLO do not understand this concept.

Looking Ahead

Because so many turn and river cards can kill our hand or put us in a tough situation, our decision making on the current street should consider what we should do on later streets. Although this concept applies in NLHE as well, we don't get into as many of these situation compared to PLO. In NLHE, a good player will rarely call the turn with a naked flush draw or a straight draw unless stacks are deep or there are specific reads for it. In PLO, players don't call a near pot-sized bet with naked flush draws on the turn either. However, because players usually have another draw or made hand to go with their flush draws, calling a huge turn pot bet is normal. Let's go over a hand to help illustrate the concept.

In Example 4.1, at first glance, it is easy to pot the turn on a draw heavy board. We currently have the nuts and obviously don't want to give free cards. The problem is there are so many cards on the river that will put us in a spot where we won't know what to do. Assuming we pot \$432 on the turn, we will have $[(1733-(21+192+432)) \sim \$1188]$ left on the river with a river pot size of $(432+432+432) \sim \$1296$.

Example 4.1: \$3/\$6 6-Max

Hero (SB): \$1833

BB: \$443

UTG: \$812

MP: \$175

CO: \$697

BTN: \$2620

Preflop: Hero is SB with $Q\heartsuit Q\heartsuit 4\spadesuit 4\heartsuit$
3 folds, BTN raises to \$21, **Hero calls \$18**

Flop: (\$48) $Q\clubsuit T\clubsuit 7\clubsuit$ (2 players)
Hero checks, BTN bets \$48, **Hero raises to \$192**

Turn: (\$432) $Q\clubsuit T\clubsuit 7\clubsuit 5\spadesuit$ (2 players)
Hero ???

We will feel comfortable with river cards Q, T, 7, 5, 3, and 2; we won't like river cards A, K, J, 9, 8, 6, and 4. By simple numerical inequality, we will be in more unfavorable situations than favorable situations, which means we won't know what to do more often. We will end up check-folding more often than we are betting. We can obviously check-call but it is pretty difficult to make the correct decision on a non-paired river that completes a draw. We haven't even accounted for situations where Villain holds a hand such as QT98 and has some of our full house outs. This further increases the times we have to check-fold on the river because there are more unfavorable river cards now.

Thus, in a spot like this when out of position, checking isn't a bad option. Checking keeps the pot size under control and we can end the hand on the turn if Villain bets. This example also illustrates why position is so important. If we are in position, we can pot the turn and happily get all the money in if we get check-raised. If Villain check-calls the turn, he might check the river when a draw hits. In this scenario, we get to check behind to see a cheap showdown. Value-betting is a bad choice because it is unlikely Villain is calling a river bet with a worse made hand if a draw hits on the river on a drawy connected board.

There will also be situations where Villain has a strong made hand on the turn such as TTxx or 77xx and wants to end the action on the turn to avoid the dilemma of not knowing what to do on the river. If he is in position, he might choose to call with such hands and hope to improve on the river. Or he can hope for a scary river so we slow down and check on the river, giving him a cheap showdown. Or on some boards, he can turn a set into a bluff, which isn't an uncommon practice for a great player. This type of bluff is unlikely to take place in the low and mid-stakes PLO games but it is beneficial to know it exists so you can account for it when you move to higher stakes.

Looking ahead is the main reason why there are some hands where you have to fold a lot on the flop even though you have decent equity. The reason is there aren't a lot of turns that you can continue and have to fold to an inevitable turn bet. We will go over these situations in the "Flop Play" section.

Chapter 5: Common Situations

When first playing PLO, we will often get into situations where we don't know what to do. In this chapter, we will go over simple common spots where players make a decision but are unsure whether their decisions are correct or not. Let's put the confusion to rest once and for all.

Example 5.1 illustrates a common situation where it's tough to play when first learning the game. Although you have a set, if there is a lot of action on this flop, you are most likely facing QTxx or two pairs with the nut flush draw. When you find yourself in this situation, the first question is how do your opponents play? Are they the type to check-raise light?

Most players rarely check-raise bluff on this flop, unless they are really good and know that on this type of flop, you often don't have a hand that can continue. Against this type of really good player, checking back to keep the pot small is best. We can call almost any turn. The river decision is up in the air and will depend on your reads at the table. Folding most of the time is fine because although you rarely have QTxx once you check behind on the flop, you might have AAxx and KKxx and stubbornly refuse to fold the river. That possibility might discourage your opponent from bluffing.

Against most players, bet-folding on this flop is fine. You will get value out of AKxx, AJxx, Q high flush draws or a pair with a flush draw. Most players aren't check-raise bluffing on this flop often either. Once they do, you can give up your hand. If an opponent check-raises you a lot on this type of flop, be sure to write down notes to keep track of his frequency. Often times, we hate to fold when we have a pretty looking hand and allow selective memory to dictate our action, usually for the worse. Once you find out that his check-raise frequency is high on Broadway drawy flops or connected flops such as 89T, you should consider checking back more when you have a hand that is strong enough to bet but cannot call a raise. You should also widen your 3-betting range against this type of opponent as well.

In the situation above, against a habitual check-raiser, 3-betting small with a Q high flush draw

Example 5.1: \$2/\$4 6-Max

SB: \$520

BB: \$412

UTG: \$622

MP: \$496

CO: \$258

Hero (BTN): \$438

Preflop: Hero is BTN with J♣J♦6♠7♦
3 folds, Hero raises to \$14, SB calls \$12,
BB calls \$10

Flop: (\$42) J♥ A♣ K♣ (3 players)
SB checks, BB checks, Hero ???

and a pair or a gutshot draw with the intention of calling is fine.

In Example 5.2, I check the flop because it is a drawy flop and players often check-raise in this spot. On the turn, Villain checks again. At this point, we should bet the turn, especially with our blockers to the straights. One reason is players will almost always lead the turn with a straight after we check behind the flop. The board is drawy and they are out of position and don't want to give a free card in case we have two pair or a turned set; we may have straight draws as well.

Players often lead this turn with sets and two pairs as well. They want to protect their hand against the numerous draws out there. For these reasons, once players check this turn, they rarely have a strong hand and usually have some marginal holding and want to control the pot. For this reason, we should bet most rivers, except river cards such as a 6, 7, or Q that give us some showdown value.

In Example 5.3, we have a monster pre-flop and we shouldn't fold against any type of opponent. Since our hand has a lot of post-flop value, we should call the 3-bet the majority of the time pre-flop. However, if someone is habitually 3-betting you, 4-betting with this hand isn't so bad. On the flop, there is only one option once Villain bets. We have to shove because although our hand is strong, raising ends the pot right there and we are happy with that result. Even against a set of

KKxx, we still have 28% equity so it isn't too bad. By calling, we are allowing too many hands to catch up as bottom two pairs on a drawy board is not that good in PLO. We also won't know what to do if Villain pots a turn club. Thus, we should raise to protect our hand. Although our hand is strong, it isn't strong enough to want action and we don't mind taking down the pot right there.

Example 5.2: \$2/\$4 6-Max

SB: \$344

BB: \$288

UTG: \$842

MP: \$125

Hero (CO): \$566

BTN: \$378

Preflop: Hero is CO with T♥Q♣6♣7♦
3 folds, Hero raises to \$14, 1 fold, BB calls \$10

Flop: (\$30) T♠J♣5♠ (2 players)
BB checks, Hero checks

Turn: (\$30) T♠J♣5♠8♥ (2 players)
BB checks, Hero ???

Example 5.3: \$2/\$4 6-Max

SB: \$408

BB: \$433

UTG: \$420

MP: \$413

CO: \$230

Hero (BTN): \$380

Pre Flop: (\$6.00) Hero is BTN with T♥9♠J♥8♠
3 folds, Hero raises to \$14, SB raises to \$46, 1 fold, Hero calls \$32

Flop: (\$96.00) 8♥9♣K♣
SB bets \$72, Hero ???

In Example 5.4, we open in the cutoff with $Q\heartsuit Q\spadesuit 6\clubsuit 6\heartsuit$ and get re-raised by a solid opponent out of the big blind. Against the majority of opponents, we should call. We will flop a set about 21% of the time. There will be some boards such as 89T or monotone flops where Villain usually check-folds and we can take the pot away with a bet.

Example 5.4: \$2/\$4 6-Max

SB: \$323

BB: \$381

UTG: \$593

MP: \$255

Hero (CO): \$461

BTN: \$265

Preflop: Hero is CO with $Q\heartsuit Q\spadesuit 6\clubsuit 6\heartsuit$

3 folds, Hero raises to \$14, BTN raises to \$34, Hero ???

Chapter 6: Flop Play

Equity Categorization

Equity Categorization is a concept where you find the equity of your hand versus different categories of hands in your opponent's range. Although this approach doesn't change the number of possible hands in a range, it will make it easier for you to learn PLO because there are too many combinations of hands in Omaha. For example, you have $K\heartsuit 8\diamondsuit 9\clubsuit J\clubsuit$ on a flop such as $K\heartsuit 8\heartsuit 4\clubsuit$. By breaking down different categories of your opponent's range and which categories he would raise this flop with, you will have a more accurate calculation of your equity versus his range.

In NLHE, if you have a hand like KQ and get check-raised, his range is flush draws, KJ+, maybe KT, sometimes 8x, sometimes 4x, and gutshots such as 56 and 67. Using Poker Stove, this is a simple situation to analyze because that is not a lot of hand combinations to enter. If we are analyzing the same situation in PLO, it is easier and more effective to say, against a check-raise on this board, we are an underdog to the following categories: sets, two pairs with redraws, pair with nut flush draw such as $A\heartsuit 4\heartsuit 5\diamondsuit 7\diamondsuit$, pair plus wrap such as $4\heartsuit 5\heartsuit 6\diamondsuit 7\diamondsuit$. The categories we are ahead are: a pair of kings with three overcards, $K8xx$, $K4xx$, and $84xx$. Let's look over some simulations.

Board: $K\heartsuit 8\heartsuit 4\clubsuit$	
Hand:	Equity %
$K\heartsuit 8\diamondsuit 9\clubsuit J\clubsuit$	46.34%
$K8X\heartsuit X\heartsuit, K4X\heartsuit X\heartsuit, 84X\heartsuit X\heartsuit$	53.66%

Table 11: $K\heartsuit 8\diamondsuit 9\clubsuit J\clubsuit$ versus two pairs with a flush draw.

Board: $K\heartsuit 8\heartsuit 4\clubsuit$	
Hand:	Equity %
$K\heartsuit 8\diamondsuit 9\clubsuit J\clubsuit$	41.04%
$4\heartsuit 5\heartsuit 67, 5\heartsuit 6\heartsuit 78$	58.96%

Table 12: $K\heartsuit 8\diamondsuit 9\clubsuit J\clubsuit$ versus a pair with a flush draw plus a wrap.

Board: K♠ 8♠ 4♣	
Hand:	Equity %
K♦8♦9♣J♣	56.32%
KKxx, 88xx, 44xx, A♠4♠5♦7♦, K with overcards, K8xx, K4xx, 84xx, 4♠X♠8X	43.68%

Table 13: K♦8♦9♣J♣ versus sets, two pairs, a pair with a nut flush draw, a pair of king with overcards, bottom two pairs with a flush draw.

From the simulations, we see that top two pair doesn't do well against two pair with a flush draw. We also see that a pair with a flush draw plus a wrap crushes top two pair. Of course, not many players are that tight and their flop raising range is wider than this. The third simulation shows two top pair as a favorite against a range of sets, two pairs, a pair with a nut flush draw, a pair of king with overcards, and bottom two pair with a flush draw. I intentionally left the two pairs with flush draws and the monster combination draws out of the range because those hands are favorites against top two pair and I wanted to give top two pair the best case scenario.

Since players don't often check-raise with K4xx and 84xx on a possible flush board unless they have a flush draw or a straight draw, we will remove them in the next simulation and see how this changes our equity versus K♦8♦9♣J♣.

Board: K♠ 8♠ 4♣	
Hand:	Equity %
K♦8♦9♣J♣	37.14%
KKxx, 88xx, 44xx, A♠4♠5♦7♦, K with overcards, K8xx, 4♠X♠8X	62.86%

Table 14: Our equity versus top two pair shoots up when we remove K4xx and 84xx from our range.

Board: K♠ 8♠ 4♣	
Hand:	Equity %
K♦8♦9♣J♣	35.81%
KKxx, 88xx, 44xx, A♠4♠5♦7♦, K8xx, 4♠X♠8X	64.19%

Table 15: Our equity versus top two pair goes up a little when we remove a pair of kings with three overcards from our range.

Board: K♠ 8♠ 4♣	
Hand:	Equity %
K♦8♦9♣J♣	34.34%
KKxx, 88xx, 44xx, A♠4♠5♦7♦, K8xx, 4♠X♠8X, 4♠5♠67, 5♠6♠78	65.66%

Table 16: Our equity versus top two pair goes up a little more when we add monster combination draws to our range.

As our simulations show, if our opponent is a solid player who rarely shows up with a naked flush draw on this flop or with a wrap without a flush draw, we should fold. Of course, if he is an aggressive player with a wide check-raising range, we should get all the money in on the flop to end the hand.

Hopefully, you are feeling a little relief by now that defining range in PLO isn't as complicated as you thought. Obviously, defining ranges is still a difficult practice but you will accelerate your learning curve when you start analyzing what categories of hands an opponent is check-raising with instead of going over the number of possible hands. Additionally, understanding the concept will give you a more efficient way to do equity estimation and thus, more time to think when playing a hand.

Easily Missed Flops

There are some boards in PLO that are hard to for people to hit and naturally, these types of boards are the ones you should go after since they are the easiest to take down. One example is paired flops such as 2♠4♠4♣, 5♣5♠6♦, and 9♦2♦2♣. One reason is it is difficult to hit trips. The second reason is people usually have big cards in their range so unless they have double suited hands or two pair hands, it is unlikely they will hit this type of flop. PLO is also a game where people are afraid of the nuts and usually give up if they don't have a piece of the flop. On the paired flops, a small bet, usually one-third of the pot, usually takes down the pot. These pots are great to donk bet and check-raise as well, especially when one of your cards pairs the board. An example would be A♥2♥K♣Q♠ on a 2♣4♥4♠ flop or A♣5♠J♥T♠ on a 5♦6♣6♥ flop. One strategy is to keep going after these type of flops until your opponents fight back. Usually, they don't.

Low unpaired flops where few straight draws are available are likely to miss people's ranges as well. Flops such as 9♣5♥2♠, 8♥2♣3♦, or T♣5♠3♦ often miss people's hands unless they hit a set. They will seldom have two pair. Even if they do have two pair, you will have some decent equity because it is easy to take the lead against two small pair when you are holding a draw or some big cards.

In Example 6.1, when I re-raise pre-flop out of position, my range is made up mostly of big cards, good KKxx hands, or AAxx. People will put me on AAxx most of the time, if not all the time. When I bet on the flop, I am representing AKxx, AAxx, and KKxx and nothing else. Although my range is polarized, the flop texture combined with my bet size fits nicely with my pre-flop action. You will get a lot of folds on this type of flop. If you get called, then try to check it down. Continue betting if you improve to a straight or bet-call a turn spade.

Example 6.1: \$2/\$4 6-Max

SB: \$456

Hero (BB): \$388

UTG: \$422

MP: \$90

CO: \$128

BTN: \$490

Preflop: Hero is BB with J♠T♠9♥8♥

3 folds, BTN raises to \$14, 1 fold, **Hero raises to \$45**,
BTN calls \$31

Flop: (\$46) A♣ K♠ 2♦ (2 players)

Hero calls \$24, 1 fold

Opponents often call once with Axxx and give up to additional aggression on the turn. Obviously, you shouldn't bet-call a turn spade against everyone. You should only use such a line against opponents who like to call a lot of re-raises pre-flop or those who peel flops light.

A good counter strategy against opponents who often bet small after re-raising is to call their flop bets in position a lot when you have a decent hand. It is much easier to balance your calling range this way and much cheaper as well. Against some opponents, you might get away with bluff-raising their small flop continuation bets. For some who are capable of 3-bet bluffing or balancing their small bets well, flatting is better than raising. You can fold on the turn if you don't improve. However, a decent number of times, your opponent will give up and check-fold after you call their flop continuation bet.

Bet Sizing

The common betting size for players after raising pre-flop is potting the flop. Although there is nothing wrong with such an approach, it limits the type of flops where you can bet small and get people to fold. Considering that there are always more bluffs than value hands in your range on the flop, betting two-third (or less) of the pot gives you a better price for your bluffs. For the times you do have a premium hand, betting less than pot allows your opponents to call or make a play when they wouldn't have if it was a pot bet.

Good situations to bet small and get away with it are on boards where there is a huge amount of fold equity, such as: low paired flops in single raised pots or high paired flops in re-raised pots; ace high boards in re-raised pots; and monotone boards.

In Example 6.2, 6♣7♥9♥8♣ is a premium hand pre-flop so I re-raise. After my re-raise, Villain will probably put AAxx and big cards in my range majority of the time. The flop hits my pre-flop range perfectly and thus I bet. Although there is a chance Villain thinks I might have some rundowns, he isn't likely to do anything about it because he might be drawing dead.

Example 6.2: \$2/\$4 6-Max

SB: \$677

Hero (BB): \$459

UTG: \$936

MP: \$200

CO: \$900

BTN: \$598

Preflop: Hero is BB with 6♣7♥9♥8♣

2 folds, CO raises to \$14, 2 folds, Hero raises to \$45, CO calls \$31

Flop: (\$46) A♥ Q♠ Q♦ (2 players)

Hero bets \$21, 1 fold

Secondly, players usually have the fold button clicked when they see this kind of flop in re-raised pots. People call a lot of 3-bets pre-flop with some random rundowns or suited hands and hope to get lucky on the flop. On a flop with broadways, they usually fold without thinking twice.

Backdoor Draws

Backdoor draws are very powerful in PLO and are the main reason why hands have so much equity on the flop. Some NLHE players don't give them enough value but they should. Runner runner flush or runner runner straight gives you about 3% equity. Your hand also gets additional equity for the potential of runner runner two pairs or trips. Since the equity differences between hands aren't big in PLO, having backdoor draws helps tremendously.

Backdoor draws are also important because it allows you to continue a lot of hands on the turn without the fear of drawing dead. There are numerous situations in PLO where you might have to bet-fold the flop because there aren't a lot of turn cards you are going to like. However, if you have some backdoor straight draws or backdoor flush draws, you can check behind on the flop knowing that, on the turn, half the deck will allow you to continue and give you a chance to win at the river, either by making your hand or by bluffing.

In Example 6.3, we hold A♥T♠K♠2♥ and have only a gutshot straight draw on the flop. However, we have 28.54% against top two pair; we have almost 20% equity against top set. What makes our backdoor draws powerful is we will be able to continue on about half of the deck on the turn: non-paired hearts, non-paired spades, Q, and A. Having the option to continue on the turn is really important because players like to fire the flop and turn, only to give up on the river. Thus, when Villain checks the river after showing aggression in previous streets, we can take the pot away from him if the board allows us.

We haven't accounted for the times Villain will give up after betting the flop and check-fold the

Example 6.3: \$2/\$4 6-Max

SB: \$242

BB: \$420

UTG: \$719

Hero (MP): \$644

CO: \$723

BTN: \$568

Preflop: Hero is MP with A♥T♠K♠2♥

UTG raises to \$14, Hero calls \$14, 4 folds

Flop: (\$34) J♥ 9♠ 4♣ (2 players)

SB bets 28, Hero ???

turn. An alternative line to calling the flop bet is raising it. We will have a lot of turn cards that we can follow through with our flop aggression and will have some fold equity on our turn bet. If Villain calls the turn, we can decide whether we want to bluff the river or not. If we haven't been caught running huge bluffs, Villain will give us some credit for a monster hand. After all, isn't raising the flop, betting the turn, and the river a line you take with a monster hand? The great thing about running a monster bluff with a bunch of backdoor draws is you can never be drawing dead. Also, since it is PLO, you will end up sucking out a decent amount.

Blockers

Since there are so many distinct hands in PLO, it is tough to narrow your opponent's range to possible holdings. It is much simpler to estimate his range using categories. For example, when he is betting on the river, is he bluffing or is he value-betting? If he is value-betting, what are his value-betting hands? Since people rarely value-bet worse than a straight on a possible straight board or a flush on a possible flush board, we can categorize further. Holding the blockers to whatever hands he is trying to represent will give you a better read of his range.

In Example 6.4, after calling the flop bet, if the turn is a T or J, we should consider betting if his opponent checks and raising if he bets. Since we have two eights, it is much tougher for Villain to have an 8 in his range. We also have the option to raise his flop bet.

The turn came a J and we should bet. The reason is, if Villain has a straight, he would have bet the turn because nobody is calling this flop less than a pair with a straight draw. Thus, if Villain has a straight, he would lead. Once he checks, his made hands are mostly two pairs or sets with which he didn't

want to face a turn raise. He might also have a hand such as A♠A♥5♠9♣ that wants to check-call.

Example 6.4: \$2/\$4 6-Max

SB: \$621

BB: \$473

UTG: \$622

MP: \$296

Hero (CO): \$1024

BTN: \$328

Preflop: Hero is CO with 6♣7♦8♠8♣

UTG raises to \$14, 1 fold, Hero calls \$14, 3 folds

Flop: (\$34) 6♥7♣9♠ (2 players)

UTG bets \$32, Hero calls 32

Turn: (\$100) 6♥7♣9♠J♠ (2 players)

UTG checks, Hero ???

I was planning to bet any non-paired or non-spade rivers. The reason for not betting on the spade is because Villain has some flush draws in his range. Additionally, he will think I am bluffing if I bet the river because he will assume I won't value-bet with straights on river spades and will check it down instead. Thus, he will call my river bet. Luckily, he ended up folding the turn on this hand.

In Example 6.5, pre-flop and flop are standard. On the turn, if it is another card besides a 2 or a 6, bet-folding is fine. This particular time, I decided to check and hope to hit my openended straight draw. If the river is a Broadway card, I can bluff at it with my blockers and represent the nut straight. I could check behind as well, though my hand won't be good that often because any hands that call the flop are likely going to improve to two pair or a set on the river.

In NLHE, it is suicidal to try to bluff people off of two pairs and sets. In PLO, the success rate is much higher because people will fold. I know because I called people down

with sets and two pairs when I first learned PLO and wondered why I was losing money. On the river, Villain checked so I didn't think he had a straight very often. Additionally, I had my straight outs. I bet and Villain tanked and called with $K\clubsuit K\spadesuit J\spadesuit T\diamondsuit$ for top set. Although I lost the pot, I still like my bet. I think the reason he called was because he had a J in his hand. If he didn't, he would have folded.

Check-Raise

In PLO, when you check-raise, the majority of the time, you either have the nuts or air. Although the range you are representing are representing is polarized, your opponents will fold a decent amount because for the times you have the nuts, they might not have many outs. A simple

Example 6.5: \$5/\$10 6-Max

SB: \$1424

BB: \$911

UTG: \$2055

MP: \$1296

CO: \$1400

Hero (BTN): \$1290

Preflop: Hero is BTN with $A\heartsuit A\diamondsuit 5\diamondsuit 4\heartsuit$

UTG raises to \$35, 2 folds, Hero raises to \$120, 2 folds, UTG calls \$85

Flop: (\$255) $K\heartsuit T\clubsuit 3\spadesuit$ (2 players)

UTG checks, Hero bets \$199, UTG calls \$199

Turn: (\$653) $K\heartsuit T\clubsuit 3\spadesuit 6\diamondsuit$ (2 players)

UTG checks, Hero checks

River: (\$653) $K\heartsuit T\clubsuit 3\spadesuit 6\diamondsuit Q\spadesuit$ (2 players)

UTG checks, Hero ???

example is on a flop of $7\spadesuit 6\heartsuit 5\heartsuit$, when you check-raise, you are representing 89xx. If you have a solid image, it is pretty tough for him to call with a made hand that is worse than two pairs with no redraw. Once your flop check-raise gets called, it is probably a good idea to give up since your opponent's range is fairly strong if he can call a check-raise on a $7\spadesuit 6\heartsuit 5\heartsuit$ board.

Check-raising is very profitable against players who continuation bet too much. Obviously, you don't want to overdo it or else your opponents might catch on and start checking back more or start floating you; great players can 3-bet bluff you as well. Of course, if they are great players, then they wouldn't continuation bet too much in the first place. It is best to check-raise when you have a blocker to the nuts on the board or when you have a pair with some backdoor draws. When you have backdoor draws, you can continue on a lot of turns. For example, on a flop of $9\spadesuit 5\clubsuit 3\heartsuit$, it is better to check-raise with a hand such as $A\spadesuit T\spadesuit J\clubsuit 4\clubsuit$ than with a hand such as $Q\clubsuit Q\spadesuit T\spadesuit 8\clubsuit$. Let's compare the two hands and see why.

If Villain has air, he will fold to a check-raise so it doesn't matter what hand you have. If your check-raise gets called, $A\spadesuit T\spadesuit J\clubsuit 4\clubsuit$ have a lot of turns to continue with while having decent equity in the pot. If you get 3-bet on the flop, $A\spadesuit T\spadesuit J\clubsuit 4\clubsuit$ doesn't have value at showdown anyway so folding doesn't lose that much value. When holding a hand such as $Q\clubsuit Q\spadesuit T\spadesuit 8\clubsuit$, your hand has some showdown value in a small pot. You also don't want to overplay your hand and check-raising does exactly this. Lastly, although $Q\clubsuit Q\spadesuit T\spadesuit 8\clubsuit$ has some outs on the turn to continue, you are rarely drawing to the nuts.

A good hand to check-raise with is when you have a pair to go with three overcards. For example, holding $A\spadesuit K\clubsuit T\clubsuit J\clubsuit$ on a board of $T\clubsuit 4\spadesuit 5\heartsuit$, check-raising is fine. If you get called, there are a lot of cards on the turn for you to continue your aggression without fear of drawing dead. In the same scenario, donk betting is a better option if your opponent is passive and doesn't continuation bet often. You likely have the best hand but you don't mind taking down the pot. This is a very important concept in PLO because your opponent's range has so much equity in the pot that the majority of the time, you are happy ending the pot even if it means you are ahead in the hand. The reason is future streets might be difficult to play and you might not know what you do on majority of future cards.

Easy Win Boards

Easy Win Boards are boards where opponent will give you a lot of credit for what you are representing. When you check-raise on a board such as A♣Q♣J♦, your opponent will give you a lot of credit for KTxx hands. Although you are only representing one hand, you must realize that in PLO, there are a lot of combinations of KTxx. People are afraid of the nuts so they will look at a hand such as Axxx and fold to your check-raise. If you have what you are trying to represent, they rarely have outs. Since PLO players are always paranoid about the nuts, they will choose the safe route and fold.

A similar situation is when the flop comes 7♠8♠9♥ and you hold 9QKA. Check-calling is disastrous because you aren't going to like a lot of turns. Check-folding is fine as well. However, on this flop, it is possible for you to have TJxx in your range when you check-raise. Players also often bet-fold here with KKxx and AAxx as well, so check-raising is profitable if used sparingly. Having a 9 in your hand also lower the chances that your opponent has 99xx and can continue in the hand.

Which Flops Are Good For AAxx

When deciding whether to check-fold, bet-fold, or bet-call with AAxx on certain flops, it is important to consider what type of opponent you are playing against. Against aggressive players who play a lot of pots, you should prepare to put your stack in frequently because their ranges are wide and AAxx will have good equity. Against tight ABC players, a naked pair of aces is rarely ahead of their range and when you are ahead, you are not ahead by much and they will have a lot of outs to catch up.

On rainbow flops such as J♦6♠2♣, J♦7♣2♠, and J♦8♥3♣, assuming stacks are about 100BB, the decision of whether or not to go with the hand largely depends on what type of player he is. If he is aggressive and will be shoving with any Jxxx, you should call. It would take a very specific read for you to fold on these boards against most opponents. On boards where the lowest card is a 2, 3, 4, or 5, it is hard for your opponent to have bottom set. Players don't often call re-raises with 22xx, 33xx, 44xx, or 55xx, unless xx is AA or KK. As the pairs go up in numerical ranking, there is a higher chance players will call with two pair hands because 7788, 8899, and 99TT don't get upset as often. Moreover, they can make good medium straights, which are harder to outdraw than 7 high straights.

On two-tone flops such as J♠6♠2♣, J♦7♦2♣, and J♣7♣3♦ where flush draws are possible, you

will have to fold more. This sounds counter-intuitive because in NLHE if you think your opponent's range has a lot of draws in it, you should call more. The problem is in PLO, flush draws have a lot of equity in the pot, especially against naked aces that don't have blockers to a straight draw or a flush draw. However, if your opponent is aggressive and he has shown up with bare Q high or bare K high flush draws on this type of board before, you have to call, even if it is a marginal spot and will increase variance. You don't want your opponents to get the idea that you are bet-folding AAxx too often in re-raised pots; your opponents will crush you. On the same note, if you are playing against a tight opponent who is bet-folding too often in re-raised pots, you should consider raising a flop continuation bet and calling it down with a hand as light as a pair with a gutshot draw.

Board: K♠7♣4♦	
Hand	Equity %
K♦ Q♦ T♣ J♣	47.80%
A♠ A♦ 2♥ 5♥	52.20%

Table 17: A pair of naked aces versus top pair with a lot of backdoor straight and backdoor flush draws.

Board: J♣7♣3♦	
Hand	Equity %
A♠ A♦ 2♥ 5♥	35.12%
K♣ Q♣ J♠ 5♠	64.88%

Table 18: A pair of naked aces versus nut flush draw with straight draws.

Board: J♦7♥3♣	
Hand	Equity %
A A x x	52.74%
T♣ 2♣ 9♠ 7♦	47.26%

Table 19: A pair of naked aces versus a pair with a gutshot draw and a backdoor flush draw.

From the simulations, we can see that a pair of naked aces is usually barely ahead or getting crushed postflop.

Continuation Bet

It is rare for you to completely miss the flop in PLO. The majority of the time, you will have some type of draw. For this reason, it is natural if your continuation betting frequency is high. Against weak passive players who don't know how to counter your style, keep running over them until they begin to adapt. However, as you move up in stakes, there are more strong players and thus, you have to continuation bet less to prevent your opponents from taking advantage of you. The questions are which flops should we check back and which flops should we continuation bet? The answer mostly depends on whether you can continue on the turn.

Example 6.5 shows a good situation to continuation bet. You likely have the best hand. You can get some value of out Jxxx as well as some straight draws. Since there aren't a lot of turn cards you like, bet-folding is a better alternative than checking behind. Betting also protects your hand. An ace may give your opponents two pair and a lot of cards put a straight out there. Thus, it is best to end the hand with a flop bet.

Example 6.5: \$2/\$4 6-Max

SB: \$378

BB: \$481

UTG: \$954

MP: \$102

CO: \$99

Hero (BTN): \$653

Preflop: Hero is BTN with $Q\heartsuit Q\clubsuit K\spadesuit 4\clubsuit$

3 folds, Hero raises to \$14, SB calls \$12, 1 fold

Flop: (\$32) $J\heartsuit 7\spadesuit 3\heartsuit$ (2 players)

SB checks, Hero ???

Example 6.6 is similar to Example 6.5 in that betting is superior to checking behind. There are a lot of straight draws on the flop. You also don't want a hand such as TQKA getting free cards. If we check, unless a K hits or we have a specific read, we have to fold against most turn bets since Villain will put us on a weak range after we check behind on the flop.

Example 6.6: \$2/\$4 6-Max

SB: \$200

BB: \$581

UTG: \$854

MP: \$124

CO: \$248

Hero (BTN): \$465

Preflop: Hero is BTN with $5\heartsuit K\clubsuit K\spadesuit 6\heartsuit$

3 folds, Hero raises to \$14, 1 fold, BB calls \$10

Flop: (\$30) $T\heartsuit 9\spadesuit 4\clubsuit$ (2 players)

SB checks, Hero ???

In PLO, since there are so many draws that can complete on the turn and the river, opponents will assume you have a weak range once you check on a drawy board and will attempt to move you off your hand. Obviously, $5\heartsuit K\clubsuit K\spadesuit 6\heartsuit$ is a decent hand and isn't as weak as your opponents may assume but your opponents don't know what you have and will show aggression. Against the majority of opponents' ranges, a naked pair of KKxx is crushed when calling a turn and river bet without specific reads. Thus, betting the flop to end the hand might prevent us from getting bluffed by a worse hand.

A NLHE equivalent would be bet-fold 77 on a $T\diamond 9\clubsuit 4\clubsuit$ flop because you likely have the best hand but don't want to see a turn card.

In Example 6.7, we should check behind the majority of the time. We don't have to protect our hands since we don't have any showdown value. Secondly, checking behind allows us to continue the hand and get to the river the majority of the time.

Assuming there isn't a bet and a raise on the turn, we can continue on a 9, A, K, or any club or heart. That's more than half the deck. After calling the turn, if Villain checks the river and we don't have a hand with showdown value, we can bluff to win the pot.

Example 6.7: \$2/\$4 6-Max

SB: \$340

BB: \$484

UTG: \$623

MP: \$189

CO: \$435

Hero (BTN): \$544

Preflop: Hero is BTN with $A\heartsuit 4\heartsuit Q\clubsuit J\clubsuit$

3 folds, **Hero raises to \$14**, SB calls \$12, BB calls \$10

Flop: (\$30) $T\diamond 8\clubsuit 5\heartsuit$ (3 players)

SB checks, BB checks, **Hero ???**

Assuming you don't continuation bet the flop with a high frequency, betting on this flop is fine as well. Checking back with these types of hands allows you to balance the times you check back the flop with air. It also allows you get one bet out of aggressive players who always bet the turn once you check back the flop. The majority of these players will take a stab on the turn and will give up on the river if they get called. Thus, against this type of player, it is great to check back with hands that can improve on later streets to get a bet out of players who check-fold rivers often.

An equivalent in NLHE is when you raise pre-flop with AK and check back on a $T\diamond 6\heartsuit 2\clubsuit$ flop but bet with A5. The reason is AK has more outs than A5 and you don't want to get blown off your hand. Additionally, when AK hits a pair, it might give your opponent a pair as well and you will have your opponent dominated.

In Example 6.8, although we have a wrap on the flop, it is difficult for us to continue if we get check-raised. Against a flush draw, we are a huge underdog; we might be drawing against bigger straight draws. The only hands we do well against are two pairs and sets. Even against those holdings, we are still an underdog. Thus, it is better to check behind in this spot because there are a lot of outs where we can improve on the turn and realize our equity.

It is also a great spot to check back because we often get check-raised and our hand isn't strong enough to continue. It is important to realize that you can bluff the turn or the river if Villain checks again. You don't always have to bluff or semi-bluff on the flop after raising pre-flop.

In Example 6.9, our hand looks like a pretty easy situation to continuation bet. We have a pair, a gutshot straight draw, and a flush draw. Against the majority of hands, our equity is great. However, if we bet the flop and get check-raised, our equity isn't as pretty as it looks. We are crushed by K high and A high flush draws. Against top two pair, we have 41.36% equity. So when we get check-raised, against some opponents, we might have to fold. This is unfortunate because our hand is strong. The problem is it isn't strong enough to call against a check-raise, especially against those with a narrow check-raising range. Thus, checking behind in this spot is a better option and we can continue on a lot of turns.

Of course, if your opponent is aggressive and would check-raise with a wide range of hands, then bet and get it in. The one idea you should get from this example is you don't have to auto-bet this flop all the time. You should check behind a decent amount of times.

Example 6.8: \$3/\$6 6-Max

SB: \$743

BB: \$545

UTG: \$666

MP: \$216

CO: \$428

Hero (BTN): \$744

Preflop: Hero is BTN with A♥9♥7♠6♠

3 folds, **Hero raises to \$21**, 1 fold, BB calls \$15

Flop: (\$45) J♦8♣5♦ (2 players)

BB checks, **Hero ???**

Example 6.9: \$3/\$6 6-Max

SB: \$1429

BB: \$1323

UTG: \$168

MP: \$544

Hero (CO): \$623

BTN: \$657

Preflop: Hero is CO with J♦8♦7♠6♠

3 folds, **Hero raises to \$21**, SB calls \$18, BB calls \$15

Flop: (\$63) Q♦K♣7♦ (2 players)

SB checks, BB checks, **Hero ???**

Example 6.10 illustrates an important concept that is rarely discussed. Betting on the flop is fine because we have a strong hand and don't mind a check-raise. However, against opponents who like to lead the turn every time we check behind the flop as the pre-flop raiser, we should check back this type of hand some of the time. The reason is we can call all turn bets. Thus, taking this line allows us to get some of Villain's bluffs.

Example 6.10: \$3/\$6 6-Max

SB: \$678

BB: \$1011

UTG: \$254

MP: \$349

Hero (CO): \$723

BTN: \$100

Preflop: Hero is CO with T♣9♥A♠6♠

2 folds, Hero raises to \$21, 2 folds, BB calls \$15

Flop: (\$45) A♦K♠7♠ (2 players)

BB checks, Hero ???

It will also discourage Villain from always betting the turn if we check behind the flop. We also add a bit of deception to our hand in case the flush hits. After all, players don't often check back the nut flush draw. For balance purposes, you shouldn't check back all the time since this is a good flop to continuation bet and you don't want your opponent to know you are checking back nut draws all the time. This is another reason why we should check back a decent number of times similar to Example 6.9.

Polarization

In PLO, there are flops where once you make a decision, you either have the nuts or air. If you don't try to represent the nuts too often, you will be able to get away with it, especially if you hold some type of blockers to the nuts. The most polarized board has to be monotone flops. On a flop such as T♦8♦3♦, if you get check-raised, the majority of the time, your opponent is holding an ace high flush or the naked A♦. It is rare for your opponent to show up with a King high (or worse) flush in this situation. The reason is if he gets called, he won't know what to do on a blank turn. Should he fire again or check-fold or check-call? Additionally, by check-raising without the nut flush card, it opens up the possibility of him being bluffed out of the pot later.

Example 6.11 shows a situation where Villain's range is polarized. Players rarely check-raise on monotone flops without the nut flush or the naked ace. If he gets called, he won't know what to do on the turn holding a worse made hand. Additionally, what if he has a queen high flush and gets 3-bet? It would put him in a really tough spot because he might be drawing dead on the flop, which is very uncommon in PLO. So when Villain check-raises, a majority of the time, he either

has the nut flush or he has the naked ace. Assuming we don't have any read on this particular player, the standard is to call the flop and call the turn. A majority of players often check-raise the flop and bluff the turn only to give up on the river. Against aggressive opponents, you might have to call him down.

Against some opponents who have shown they are capable of check-raising light on this flop with hands such as queen or jack high flush, you should consider 3-betting. One reason is Villain will fold a queen or jack high flush to a 3-bet. If he shows up with a nut flush hand such as A♦4♦K♠5♠, we will have about 36.71% equity, which isn't too bad. One advantage of opponents knowing you can 3-bet with 77xx here is that it allows you to widen your bluffing range on the flop as well.

Example 6.12 shows a similar situation where Villain likely holds the nuts or air. Since we have two blockers to the straight, we can continue the hand. Of course, folding is fine as well. But let's say we want to continue playing the hand, what should we be thinking in this situation? We have two blockers to the nut straight so it is unlikely Villain has the straight in this situation. What this means is he probably

Example 6.11: \$3/\$6 6-Max

SB: \$689

BB: \$420

UTG: \$199

MP: \$345

CO: \$1230

Hero (BTN): \$657

Preflop: Hero is BTN with 8♥T♣7♥7♣
3 folds, Hero raises to \$21, SB calls \$18, 1 fold

Flop: (\$48) 7♦6♦2♦ (2 players)
SB checks,, Hero bets \$38, SB raises to \$166,
Hero ???

Example 8.4: \$3/\$6 6-Max

SB: \$288

BB: \$744

UTG: \$276

MP: \$568

Hero (CO): \$1154

BTN: \$677

Preflop: Hero is CO with 9♠9♣7♠A♣
2 folds, Hero raises to \$21, 1 fold, BB calls \$15

Flop: (\$45) 7♦6♦5♣ (2 players)
BB checks, Hero bets \$41, BB raises to \$158,
Hero ???

has a hand such as 88xx and wants to move us off our hand on the flop. Thus, 3-betting small in position is a viable play. We can float the flop check-raise as well. But if we do so, Villain will put us on some type of draw or a set and might continue with his bluff on the turn. In a scenario where Villain bets again on the turn, we have to fold. Thus, if you feel your opponent is aggressive and likes to make plays at pots, a small 3-bet here is fine once in a while.

Chapter 7: Turn Play

Bet-Fold Turn

If there is one piece of advice all novice PLO players should receive, it is “Bet the turn more often.” In NLHE, when you don't know what to do against a check-raise if you have a marginal hand, you check back for pot control and hope to see a showdown. By the turn, it is hard for a hand to catch up. So by checking, worse hands aren't improving that often. However, in PLO, two pair is really weak and thus, you should bet-fold on most occasions. For example, if you are holding T753 on a two-tone board of KT65 and you don't have a flush draw, bet-folding here is infinitely better than checking behind. Your hand is marginal and your opponent has a lot of outs against you. To show you how vulnerable two pair is in PLO, look at the simulation below.

Board: K♠ T♠ 6♣ 5♦	
Hand	Equity %
T♦ 7♠ 5♥ 3♥	61.46%
random	38.54%

Table 20: Second and bottom pairs versus a random hand.

Additionally, you can't profitably call a river bet unless you improve to a full house. Even then, your full house might not be good. Remember, you do not want your opponent to realize his equity in the pot and the only way to do that is to make him fold.

Medium Flush On The Turn

Holding a medium flush on the turn is a tougher spot than most people realize. Against a tricky player, although checking back the turn seems weak, it is fine. You won't know whether he's check-raising with a bare naked flush card or with a higher flush. The majority of the time, he is betting a non-paired river once he check-raises because he either puts you on a set or a lower flush. Although you know this, you cannot profitably call him because there are a lot of combinations of flushes. Additionally, his check-raise bluffing frequency with the naked ace is a lot less than his check-raise

with the nut flush.

Against tight ABC players, betting the turn with any flush is fine. Such a player will rarely check-raise the turn unless he has you beat, making it easy for you to fold if he does. Additionally, you charge him to draw to a full house in case he holds two pair or a set. Checking behind the river with a low flush (J or below) is standard once a good player check-calls the turn on a possible flush board. He is rarely calling your river bet with a worse flush than J high. This is why it is very profitable to run bluffs with the naked ace on a flush board.

The Donk Bet

The **donk bet** is probably the most powerful play in PLO. It forces your opponents to fold hands where they have some equity in the pot and at times, are getting the correct odds to call. However, in some situations, they cannot call because their hand doesn't do well versus the range you are representing. Or they do have the correct odds to call on a turn bet but risk making a big mistake on the river.

Donk betting is also profitable against players who aren't aggressive and check behind the pot a lot with their marginal hands and draws. We also take away Villain's initiative if he doesn't raise our donk bet to take control of the hand. The questions are what situations are we donk betting and with what hands?

In Example 7.1, we can re-raise against the pre-flop raiser. In this situation, I opted to call. The flop is interesting because we have a lot of options. We can check-call, check-raise, or donk bet. Since it is an ace high flop, there is a high chance Villain will bet the flop. Check-call allows us to continue the hand cheaply but won't let us take down the pot. Check-raise will fold out a lot of bluffs and some Axxx hands but can be costly. The worst thing is we might get blown off the hand if Villain 3-bets us. Villain might be stubborn and call with Axxx and we would have to shut down on the turn if

Example 7.1: \$3/\$6 6-Max

SB: \$358

Hero (BB): \$740

UTG: \$145

MP: \$488

CO: \$983

BTN: \$412

Preflop: Hero is BB with J♠8♣7♠T♣

1 fold, MP raises to \$21, 3 folds, Hero calls \$15

Flop: (\$45) A♦ 6♠ 4♣ (2 players)

Hero bets \$39 ...

we don't improve our hand or turn a backdoor draw. The reason is Villain might have a strong hand and wait for a blank turn to get it in. He might also have a strong hand and decided to slowplay to get one more bet from us.

One important factor for donking on ace high flops is Villain will call with Axxx majority of the time. Most players will call a flop bet and will fold to a turn bet if they don't improve. They won't raise your flop donk bet because they don't want to turn their hand into a bluff or overplay their hands and so they will approach the situation cautiously. Since we have a lot of turn cards we can continue (spades, clubs, a 5, a 9), donk betting is a great option.

In Example 7.2, I open pot in middle position and a solid ABC player re-raises. J♥T♦9♦8♣ plays well post-flop against his re-raising range so I called. The flop is interesting and ties together a lot of concepts we previously discussed. Against AAxx, we have 48.63% equity so we don't mind getting it in on this flop. Although not often, AAxx will fold a number of times to a flop donk bet as well.

One important idea to take from this example is that the majority of our equity is from our backdoor draws, mainly straights and flushes. If Villain bets the flop, we don't mind check-raising and calling it down. We might even be ahead the few times Villain shows up with a hand such 789T. However, if Villain checks behind on the flop, we lose a lot of equity in the pot, especially if the turn is an offsuit deuce or king. On a 2♠ turn, our equity versus AAxx decreases dramatically to 33.94%. Furthermore, it is harder to win the pot now because after a check-check flop, AAxx is calling if we bet the turn.

If we check the turn with J♥T♦9♦8♣ or hands with similar strength, we have to check-fold if Villain bets. Although betting the turn is fine, we don't know what Villain's range is composed of. The only thing we know is he didn't flop a set. He might be pot controlling the flop with AAxx and KKxx and will call any turn bet. If we don't improve to trips or better on the river, it is tough to play. Even if we hit two pair, we aren't too comfortable betting because our two pair outs are similar to Villain's outs. If we check, the decision to call or fold is tough and will depend on what type of opponent you are

Example 7.2: \$3/\$6 6-Max

SB: \$889

BB: \$245

UTG: \$527

Hero (MP): \$634

CO: \$1173

BTN: \$392

Preflop: Hero is MP with J♥T♦9♦8♣

1 fold, Hero raises to \$21, CO raises to \$72, 3 folds, Hero calls \$51

Flop: (\$153) 6♥ 8♦ 3♣ (2 players)

Hero bets \$144 ...

dealing with. The majority of the time, it is a check-fold on the turn once the flop goes check-check because players rarely re-raise pre-flop, check behind a safe flop and all of a sudden, decide to bluff the turn and river.

In Example 7.3, donk betting is a great option because you can take down the pot right there. You might fold out better hands such as naked JJxx or QQxx. If Villain calls, you have a lot of outs. If Villain raises, it is unlikely you have the best hand and can fold. Check-calling makes the hand tougher to play because there aren't a lot of turns that you are happy with. Additionally, some of your two pair outs will put a flush

on the board and Villain can continue putting pressure on you. This is definitely a tough spot to play but donk betting is the best among the available options.

In Example 7.4, we have top two pair on a draw heavy flop. We can certainly check-call or check-raise. However, this makes the hand difficult to play because there aren't a lot of turns we are happy with. We would love to see an eight or jack as well as a non-diamond deuce or three. Everything else will put a straight or a flush out there. An ace, K, or Q on the turn may give our opponent higher two pair or it might encourage him to bet again and we

can't call. The best option is to donk bet this flop. Against aggressive opponents who like to raise flop bets, we can 3-bet the flop and try to end the hand right there. If a passive player raises our flop bet, we can safely fold. If we get called and don't improve on the turn, we should consider checking it down the majority of the time.

Example 7.3: \$2/\$4 6-Max

SB: \$277

Hero (BB): \$450

UTG: \$289

MP: \$627

CO: \$544

BTN: \$723

Preflop: Hero is BB with A♥Q♥8♠T♠

3 folds, BTN raises to \$14, 1 fold, **Hero calls \$10**

Flop: (\$30) T♥ 6♣ 7♣ (2 players)

Hero ???

Example 7.4: \$2/\$4 6-Max

Hero (SB): \$477

BB: \$450

UTG: \$168

MP: \$345

CO: \$622

BTN: \$711

Preflop: Hero is SB with J♥7♥8♠T♠

3 folds, BTN raises to \$14, **Hero calls \$12**, 1 fold

Flop: (\$30) J♣ 4♦ 8♦ (2 players)

Hero ???

In Example 7.5, we should consider donk betting as well. We will donk bet a majority of flops so it is great to have a set in our range for balance purposes. Additionally, Villain might overplay a hand such as K8xx or 44xx and we will get to put a lot of money in on the flop. Check-calling or check-raising is fine. The only downside is the turn might present a scare card, such as a diamond, and we won't get to stack a hand that we might otherwise stack.

Example 7.5: \$2/\$4 6-Max

Hero (SB): \$426

BB: \$351

UTG: \$265

MP: \$288

CO: \$431

BTN: \$599

Preflop: Hero is SB with K♥K♣9♣T♦

3 folds, BTN raises to \$14, **Hero calls \$12**, 1 fold

Flop: (\$30) K♠ 4♦ 8♦ (2 players)

Hero ???

Another situation where a donk bet is great is when you have a monster draw on the flop and choose to check-call or when you turn a monster draw.

In Example 7.6, I check-call a flop bet with a gutshot and a few backdoor draws; to donk bet the flop is fine as well. On the turn, I turned an openended straight flush draw. We have three options at this point. We can check-call, check-raise, or donk bet; our hand is too strong to check-fold. Check-calling is the worst option because we don't often get paid if we improve on the river. We also allow our opponent get value out of their marginal hands and allow them to see a cheap showdown.

Check-raising as a semi-bluff is a great option on this turn because our equity is huge against the range that calls our shove in this spot. The only time we are in bad shape is if Villain has a higher flush draw with two pair or better. Even then, we still have straight outs. Villain will also bet-fold two pair hands such as 69xx, J9xx, 6Jxx. There is a slight chance Villain bet-folds 22xx or even

Example 7.6: \$3/\$6 6-Max

SB: \$477

Hero (BB): \$900

UTG: \$365

MP: \$138

CO: \$854

BTN: \$622

Preflop: Hero is BB with Q♥T♥8♠5♠

3 folds, BTN raises to \$21, 1 fold, **Hero calls \$15**

Flop: (\$45) 6♠ 2♣ 9♥ (2 players)

Hero checks, BTN bet \$38, Hero calls \$38

Turn: (\$121) 6♠ 2♣ 9♥ J♥ (2 players)

Hero ???

66xx. Against passive opponents who don't check-raise light, folding 22xx and 66xx is fine. Mediocre players just don't check-raise the turn without the nuts in PLO. This particular characteristic might change in the future as players improve. But as of now, this read applies to most players.

Our last option is donk potting the turn. Donk potting the turn forces your opponents to fold some of their marginal hands that have equity against our range. It also forces out a naked higher flush draw that has a higher equity than your current holding but can't call because a naked high flush draw doesn't have enough equity against your donk potting range. On the occasions where your opponent has top set, your equity is still great.

Board: 6♠ 2♣ 9♥ J♥	
Hand	Equity %
8♠ 5♠ T♥ Q♥	42.5%
A♥ 3♥ T♣ 3♣	57.5%

Table 21: A wrap with a straight flush draw is a significant underdog versus a naked nut flush draw.

Board: 6♠ 2♣ 9♥ J♥	
Hand	Equity %
8♠ 5♠ T♥ Q♥	50%
Q♣ J♦ Q♦ 6♥	50%

Table 22: A wrap with a straight flush draw is a coin-flip versus top set.

If Villain calls the turn donk pot, we should often bluff the river. The reason is by the turn, the stacks are getting shallow so if Villain has a strong made hand, he wants to end the pot right there in case we are potting the turn with a draw. If Villain calls with his strong made hand, he is not going to know what to do on the river if we bet on a blank river because we might play with top set or middle set this way. If the river completes a draw, he doesn't know whether or not it improves our hand. So Villain is most likely shoving the turn with a strong made hand. Below are situations where you can donk bet the river.

In Example 7.7, pre-flop and flop play are standard. Donk betting the flop is fine as well. On the turn, check-calling is the best option. Donk betting the turn is not very profitable because we have to fold to a raise and our hand has enough equity and implied odds to play on the river. We can make an argument for check-potting the turn as a semi-bluff as well. In this situation, I decided to call.

On the river, I missed my flush draw. However, by having two blockers to the nut straight, we can pot here as a bluff. Unless Villain was betting the flop and turn with hands such as 9TJQ or QT99, it will be very hard for him to call. Our range is consistent with our flop and turn play. Now that we can represent the straight, we should bet. Villain will have a tough time calling with a hand as good as JJxx on the river.

Results: I bet \$288 on the river and Villain quickly folded.

In Example 7.8, pre-flop might be a little loose against solid players. Against this particular opponent who was passive and let me get to showdown a fair amount, I called. Flop play is standard. Check-raising or donk betting is an option as well but we don't want to get 3-bet and have to fold a decent hand with some showdown value. Our chance of getting 3-bet on this flop is high because it is drawy and there are a lot of combination draws that will want to get it in.

On the turn, I hit a set and can only check-call. Donk betting and check-raising

Example 7.7: \$3/\$6 6-Max

SB: \$754

Hero (BB): \$623

UTG: \$128

MP: \$658

CO: \$195

BTN: \$668

Preflop: Hero is BB with Q♥Q♦A♦7♠

3 folds, BTN raises to \$21, 1 fold, **Hero calls \$15**

Flop: (\$45) 9♣ 8♠ 2♦ (2 players)

Hero checks, BTN bets \$40, **Hero calls \$40**

Turn: (\$125) 9♣ 8♠ 2♦ 3♦ (2 players)

Hero checks, BTN bets \$99, **Hero calls \$99**

Turn: (\$323) 9♣ 8♠ 2♦ 3♦ J♥ (2 players)

Hero bets \$288 ...

Example 7.8: \$3/\$6 6-Max

SB: \$544

Hero (BB): \$623

UTG: \$289

MP: \$734

CO: \$367

BTN: \$248

Preflop: Hero is BB with J♠J♥9♥K♠

1 fold, MP raises to \$21, 3 folds, **Hero calls \$15**

Flop: (\$45) 8♦ 3♦ T♠ (2 players)

Hero checks, MP bets \$45, **Hero calls \$45**

Turn: (\$135) 8♦ 3♦ T♠ J♦ (2 players)

Hero checks, MP bets \$135, **Hero calls \$135**

Turn: (\$405) 8♦ 3♦ T♠ J♦ T♥ (2 players)

Hero bets \$377 ...

will over-represent my hand on this board. On the river, I improved to a full house. I remember my first instinct was to check. Because that's what we do in NLHE. The reason is in NLHE, people will bet with Q9 and flushes all day on the river. Players bet with Tx in this spot as well. However, in PLO, people check behind with those hands. They won't bet unless they have TTxx for quads, or 8Txx, JTxx. Some players check back 88xx and 33xx. Since Villain rarely value-bets thin in this spot and will have a lot of made hands that can call a bet, we should donk bet. Although our hand strength is kind of obvious, players will have a hard time folding the nut flush or smaller full houses such as 33xx, 88xx, and 8Txx, especially if they recently started playing PLO.

Checking the river allows us to catch some bluffs, but unless Villain is on hyper aggressive mode, he isn't likely to bluff once the board pairs on the river.

Results: I bet \$377 on the river and Villain tanked for a while and folded.

Fold Equity and Semi-Bluffing

Because hands have so much equity on the flop and even on the turn, folding in PLO occurs less frequently than NLHE in the early streets. Thus, it doesn't seem like PLO has any fold equity. Such an assumption is correct only on the flop because hands have a lot of possible backdoor draws. When your opponent gets to the turn and if the turn card isn't one of his backdoor cards, his equity hand decreases dramatically and thus, your folding equity increases. On the river, your folding equity increases by a huge margin. One reason is people don't make many hero calls. The other reason is there are no more streets to play so it doesn't matter how powerful your draw is, it won't get there.

To increase your fold equity in a particular spot, it is better to check-raise rather than betting out. When you bet, you are representing a wide range and Villain can close the action on that particular street and keep the pot small if he feels his hand does well against your range. However, when you check-raise, you are representing the nuts and Villain is forced to play a huge pot with his hand. If he has a marginal holding, he will be inclined to fold because against a range of nuts and air hands, he doesn't do so well. However, if you were to bet, he isn't going to fold often because there is a good chance he can beat some of your made hands.

In Example 7.9, if we bet, Villain will likely call with two pair hands such as 65xx and T5xx; he might call with hands such as 64xx or 678x. If we check, these hands are likely going to bet for protection on the turn and will have to fold to a raise. Since we have two blockers to the nuts, it is less likely for our opponent to have the nut straight. So although the range we are representing is limited, Villain has to fold the majority of his marginal hands. Because unless he has a set, he will have a hard time catching up to us on the river. Once Villain checks behind on the flop, it is rare for him to have a set in his range besides 55xx.

A check-raise on the turn has a lot of fold equity as well. With a combination draw, check-shoving the turn against opponents who bet the turn a lot is a very profitable play. Because combinations draws such as a pair with a flush draw or a flush draw with a straight draw have a lot of equity in the pot and with so much out there already after opponents bet the turn, you don't need opponents to fold that often for the play to be profitable. Another reason is players are currently playing the turn very passively when out of position with draws, so when you check-raise, you will get more credit and consequently, more fold equity. These factors make semi-bluffing the turn a very profitable play that not a lot of players are taking advantage of.

In Example 7.10, we have a lot of options on the turn. Donk betting is fine. Check-calling is fine. Check-raising is fine. The key to choosing the best option is player dependent. If he is tight and passive, you should donk bet. If he is a solid player, then check-call. If he is an aggressive player who bets the turn a lot, check-raising is better. On this hand, I check-raised.

Example 7.9: \$3/\$6 6-Max

SB: \$744

Hero (BB): \$698

UTG: \$630

MP: \$845

CO: \$678

BTN: \$420

Preflop: Hero is BB with A♦7♦7♠K♠

3 folds, BTN raises to \$21, 1 fold, **Hero calls \$15**

Flop: (\$45) T♣ 6♦ 3♥ (2 players)

Hero checks, CO checks

Turn: (\$45) T♣ 6♦ 3♥ 5♠ (2 players)

Hero ???

Example 7.10: \$3/\$6 6-Max

SB: \$543

Hero (BB): \$700

UTG: \$421

MP: \$90

CO: \$187

BTN: \$644

Preflop: Hero is BB with A♥K♥6♣Q♣

3 folds, BTN raises to \$21, 1 fold, **Hero calls \$15**

Flop: (\$45) 2♣ 6♠ T♥ (2 players)

Hero checks, BTN bet \$38, Hero calls \$38

Turn: (\$121) 2♣ 6♠ T♥ J♥ (2 players)

Hero checks, BTN bets \$119, **Hero ???**

One reason is Villain is an aggressive player and will bet-fold with a lot of two pairs hands such as 6Txx, TJxx, 2Jxx, and 6Jxx. Additionally, he will bet-fold a lot of draws; he might bet-fold KKxx and AAxx as well. Since Villain will bet-fold a lot of his range, we should check-raise often.

A♥K♥6♣Q♣ has 48.48% equity against TJxx on the turn. Even if we know Villain has top pair two on this board, we should always check-raise. If he calls, it is a close race. With the money already in the pot in addition to the fold equity we get, check-raising is profitable. Against a set of JJxx, our equity is 42.76%. Of course, JJxx isn't going to fold against our check-raise but for the sake of discussion, if we have 42.76% equity by the turn, how often does Villain has to fold for our check-raise to be profitable? From our equation below, Villain has to fold 27.7% for our push to break even.

If Villain folds, we win a \$240 pot.

If Villain calls, Villain's equity in the pot is $(-585 \cdot .6) \sim -351$ and Hero's equity is $(180+466) \cdot .6 \sim 258.4$

$$\begin{aligned} \text{EV}(\text{push}) &= \text{pot} \cdot X + (\text{Villain's equity} + \text{Hero's equity}) (1 - X) \\ &= 240 \cdot X + (-351 + 258.4) (1 - X) \\ &= 240X + (-92.6)(1 - X) \\ &= 240X - 92.6 + 92.6X \\ 92.6 &= 332.6X \\ X &= 27.7\% \end{aligned}$$

As you can see, due to the dead money in the pot and our huge equity, Villain doesn't have to fold that often for this to be a profitable play for us. Considering it is a spot where players bet-fold a lot, we should check-raise a lot. As a rule of thumb, if you have 35% to 40% equity on the turn with a nut draw, you can't go wrong check-shoving.

When The Turn Pairs

The turn card pairing the board is a common board texture that occurs in NLHE and in PLO. However, the action one takes in one game is almost the opposite of the other. In NLHE, on a flop of $K\spadesuit 8\diamondsuit 3\clubsuit$, you bet and get called. If the turn is a K or an 8 and you don't have trips, you will most likely check. You know no one believes you have trips so they will call down lighter. Additionally, if the turn is a K, it is harder for hands like QQ-8x to fold now. Because with two kings on the board, it is unlikely you have the third king and you would usually check with AA and QQ-8x. You don't know whether your opponent has a king or not. Obviously there are occasions where you can bet AA and QQ-8x on that board but for simplicity, let's not go there.

In PLO, on the same board, the situation is totally different. Due to having great equity due to their backdoor draws, a lot of hands peel the flop light. Once the board pairs, it dramatically decreases their hand value because backdoor straights draws aren't possible, and backdoor flush draws aren't as valuable because you might be drawing dead. Thus, our fold equity in this spot is huge and players will be more inclined to fold.

In Example 7.11, a player with NLHE experience would check behind because any made hand check-calling the flop isn't check-folding the turn very often. In PLO, a bet here gets a lot of better hands to fold. Hands such as 56xx, QQxx, KKxx, 678x, and 78xx don't have as much equity as they have before; hands with backdoor flush draws such as $A\heartsuit 3\heartsuit 4\spadesuit 5\spadesuit$ or $A\heartsuit T\heartsuit 7\clubsuit 9\clubsuit$ now have to fold as well. The reason is those hands may be drawing dead to a turn bet and Villain doesn't know if a river bet is coming either. It

Example 7.11: \$3/\$6 6-Max

SB: \$743

BB: \$489

UTG: \$536

MP: \$907

CO: \$172

Hero (BTN): \$688

Preflop: Hero is BTN with $T\spadesuit 9\heartsuit 6\spadesuit K\spadesuit$

3 folds, Hero raises to \$21, SB calls \$18, 1 fold

Flop: (\$48) $J\spadesuit 5\heartsuit 6\clubsuit$ (2 players)

SB checks, Hero bets \$44, SB calls \$44

Turn: (\$136) $J\spadesuit 5\heartsuit 6\clubsuit J\diamondsuit$ (2 players)

SB checks, Hero ???

also helps having a $6\spadesuit$ in our hand as it reduces Villain's chance of flopping a set or two pairs with J6xx.

In Example 7.12, we should bet the turn more often than we check. Hands such as 678xx, Qxxx, KQxx, and AAxx will usually fold the turn; straight draws such as KTJx and QJTxx are folding as well. Those hands don't have many outs against the range we are representing when we check-raise the flop. Although there is a chance we are check-raising with a draw as well, it is hard for Villain to continue with the hands above because we can easily have QQxx and Q9xx. Of course, if our image is wild and we have been making a lot of plays at the pot, then we shouldn't be the turn as often. If Villain calls the turn, giving up river is probably best because Villain mostly has 55xx, 59x, 9xxx, 99xx, Q9xx, and QQxx in his range.

Example 7.12: \$3/\$6 6-Max

Hero (SB): \$955

BB: \$129

UTG: \$446

MP: \$668

CO: \$863

BTN: \$456

Preflop: Hero is SB with A♣8♥7♣T♦

2 folds, CO raises to \$18, 1 fold, **Hero calls \$15**, 1 fold

Flop: (\$42) 9♣ Q♠ 5♦ (2 players)

Hero checks, CO bets \$30, **Hero raises to \$139**, CO calls \$109

Turn: (\$320) 9♣ Q♠ 5♦ 9♠ (2 players)

Hero ???

Chapter 8: River Play

The decision to fold, bet if checked to, call, or raise on the river is dependent on math. There are no more cards to come so your implied odds are non-existent. If you are in position, you have the option to end the hand with the action of your choice. Because of this, position is very powerful.

The best rivers to bluff are obviously the ones that complete a draw. Because PLO allows so many draws to complete on the river, it is easier to move your opponent off a strong hand. For some reason, people cannot fold top pair in NLHE but in PLO, they give up on a hand when a draw hits the river and they had the nuts on the turn. This isn't saying giving up on the river is a bad or a good play. It is just interesting how people are so afraid of the nuts in PLO. Thus, you should take advantage of this.

A common situation for bluffing the river is when Villain is potting the turn to represent a straight and the river completes a flush card or the river pairs the board. In this situation, you should highly consider bluffing whatever hand you are holding that can't beat a good straight. Most players aren't tricky enough to semi-bluff the flop and the turn and then decide to check-raise the river with the nuts. The most common line of thinking is, "I semi-bluff on the flop and turn. Now I got the nuts on the river, I have to bet it. I am going to look like an idiot if I check and he checks behind with a hand that might have called a pot bet." Therefore, when an obvious draw hits on the river, you should bet if Villain defined his range on the previous street. You will get more credit than you believe.

As previously stated, a lot of players don't bluff the river enough. When you are in a situation and you don't know whether to bluff or give up, you should consider bluffing. First, your river bluffing frequency isn't that high, so adding another bluff to your river range isn't going to imbalance whatever your river range is. Second, if you have never been caught bluffing, then you aren't going to get paid off very often. If you play against very bad players who play too many hands and will always pay you off, it is suicidal to bluff for balance purposes. Just play tight with big draws and big hands and win. However, the game will get tougher so it is to your advantage to make yourself a tougher player, and having the ability to bluff the river makes you hard to play against.

To see whether the decision to bluff the river is profitable or not, let's go to an extreme scenario. You have a really bad hand on the river that cannot possibly win against any hand. It is checked to you. Should you check 100% or bet 100%? Obviously, either extreme is bad but betting 100% is better than checking 100%. Assuming you are going to bet two-thirds pot every time, your opponent needs to fold

at least 40% ~ 67 / (67+100) for you to break even. Considering it is PLO and people like to fold to river bets, bluffing rivers is more profitable than not. You are going to win some money some of the time when your opponents fold. If you get caught, opponents might be discouraged from peeling your flop or turn bets too light, fearing that there is a big river bet waiting for them. There are many times I would call a flop and turn bet because I know some players cannot pull that trigger on the river. Thus, if you check back 100%, you will never get your share of the pots. Let's go over some examples.

In Example 8.1, pre-flop and flop play are standard. Although we have two pairs on the flop, raising really overplays our hand. On the turn, pot-raising or shoving is fine. You will have a lot of fold equity because a hand such as 45xx might not call you because your opponent might be afraid of getting freerolled. After all, it is normal for you to slowplay the nuts on the flop and wait for a safe turn to put a lot of money in. If you get called, you still have 25% equity against 45xx.

For this particular situation, I decided to call the turn instead because there are a lot of river cards where I can move him off his

hand. The Kh is one of them. Once Villain checks, he rarely has a flush. He might get tricky with a nut flush but that will rarely happen in the low and mid-stakes game. If he has a medium flush, he is going to make more by betting because I am never going to show up with a random hand on the river. My calling range after the turn is composed of sets, 45xx, and flush draws. If he checks with a flush, I will almost always check behind with sets and 45xx, or at least he thinks I will. The cool thing about this situation is he doesn't know which flush draw I am calling the turn with. Since this is PLO, it is not uncommon for me to have both flush draws on the turn. Thus, on the river, it is an easy spot to bet once Villain checks. I should note that bottom two pairs aren't often good in this spot after Villain fires both the flop and turn. After all, if Villain was betting with a draw, it got there. This means he should have a

Example 8.1: \$2/\$4 6-Max

SB: \$524

BB: \$221

UTG: \$749

MP: \$95

CO: \$988

Hero (BTN): \$492

Preflop: Hero is BTN with 6♣3♦9♦A♣

2 folds, CO raises to \$14, Hero calls \$14, SB calls \$12, 1 fold

Flop: (\$46) 7♥ 6♥ 3♣ (3 players)

SB checks, CO bets \$42, Hero calls \$42, 1 fold

Turn: (\$130) 7♥ 6♥ 3♣ J♣ (2 players)

CO bets \$99, Hero calls \$99

River: (\$328) 7♥ 6♥ 3♣ J♣ K♥ (2 players)

CO checks, Hero ???

lot of made hands in his range and many of those made hands will have bottom two pair crushed.

Example 8.2 shows an interesting spot where we have the nuts on the flop and the turn only to have many hands beat us on the river. Such occurrences are fairly standard in PLO and it is important that you know how to play these types of spots. On the turn, I could try to be tricky and check to let Villain bet. In this particular situation, I elected to bet instead. On the river, no worse hand is calling my bet. It is also a spot where my opponents don't have many bluffs either. The only hands he can try to turn into a bluff are 9TJx or A835, though the chance of him having those hands by the river is unlikely.

Thus, when we check, it is mostly check-

fold because Villain is rarely bluffing in this spot either. He is going to check back two pairs and sets; he will probably check back T76x a lot of the time. On this hand, Villain bets the river. When he bets, it is either a random bluff or a flush. We can beat a random bluff but since his range is going to be a lot of flushes, calling is pretty bad. However, we have the naked ace and this means Villain doesn't have the nuts. Thus, I ended up turning top set into a bluff on the river.

A few things I should note regarding this hand. First, my opponent was competent so there is a good chance he can fold a flush as good as king high, though it is obviously better if he didn't have it. After all, what value-hand can he beat? Second, although my line is a little tricky for a nut flush, it is consistent for how someone plays a nut flush. Third, the stacks are deep so it is going to be pretty tough for him to call a large river check-raise without the nuts, especially when there is a good chance I have the nuts myself. Due to these factors, I check-shoved the river. Villain used his whole time bank and folded.

Obviously, I don't recommend making this type of play versus people who will play straightforwardly and cannot fold a good flush on this board. I definitely wouldn't take this line against

Example 8.2: \$2/\$4 6-Max

SB: \$615

BB: \$428

UTG: \$190

Hero (MP): \$745

CO: \$899

BTN: \$356

Preflop: Hero is MP with A♣T♥T♠J♠

I fold, Hero raises to \$14, CO calls \$12, 3 folds

Flop: (\$34) T♣ 8♣ 4♠ (2 players)

Hero bets \$32, CO calls \$32

Turn: (\$98) T♣ 8♣ 4♠ 2♦ (2 players)

Hero bets \$98, CO bets \$98

River: (\$294) T♣ 8♣ 4♠ 2♦ 5♣ (2 players)

Hero checks, CO bets \$246, Hero ???

a good NLHE player who recently transitioned to PLO. He will automatically put me on a naked ace bluff and call off with a Q high flush. Also, although the idea of turning top set into a bluff seems kind of outrageous, if the situation allows, it is not uncommon in PLO.

Chapter 9: A Few More Words

You should now have enough knowledge to profitably play PLO profitably at the small and mid-stakes levels. Remember, experience is everything. Try to be patient with your game as you work to become a better player. It is normal to go on 10 to 20 buy-in swings in either direction. Because of this factor, you may think you are better than what your skills dictate when you run hot. On the same note, you may think you are worse than what your skills dictate when you run bad. For this reason, you should be observant as to why you are winning. You may be running hot and not realize it. Be on the right side of a few coin-flips and you will think it is an easy game, until you go on a downswing. Similarly, if you are losing and are on a downswing, don't get discouraged, maybe it is just variance. The difficulty of quantifying your edge is what makes this game so sick. That's why some people, pros even, won't play PLO. They can't handle the swings.

■ Chapter 10: Glossary

Range(s) – A set of hands. For example, I raise pre-flop at the cutoff and my opponent re-raises on the button. His range is AAxx, suited big cards, and suited rundowns.

Donk Bet – A bet made by the player who is out of position and didn't have the initiative in the previous street. For example, I open pre-flop on the button and the BB defended. The flop is 678 and he leads out. His is donk betting.