## Dear Senate Committee on General Government and Accountability,

The following document is framed from the third reading of HB 2190 related to social gaming that took place in the State House of Representatives on April 17 ${ }^{\text {th }}, 2017$. The statements below in bold italics are statements by Representatives during the third reading of the bill preceded by the replay timestamp of the statement. It was apparent to me that the speakers favoring the bill made incorrect assumptions, poor comparisons, and exaggerated arguments to support their position. This document responds to some of those arguments directly, as well as points out some additional arguments in OPPOSITION to HB 2190.

I have summed up the document in bullet points below for quick reference, but I encourage you to listen to the third reading video replay found here:
http://oregon.granicus.com/MediaPlayer.php?clip_id=23455 and consider the rebuttal arguments below each of the Representatives' statements.

## Summary:

- 2 out of 3 live testimonies supporting the bill were from WA casino interests (March 29, 2017).
- There were 11 live testimonies from Oregon citizens opposing the bill (March 29, 2017).
- Just 3 out of 16 submitted written exhibits were in support of the bill while 13 were opposed.
- The major poker clubs are not clandestine operations. They are overt and transparent to law enforcement, the public, and state officials.
- There is no evidence of nefarious activity such as sex trafficking, nor drug sales/abuse taking place at overt social gaming poker clubs. In fact, police report the issue of gambling being a low priority with few complaints submitted to police departments involving the clubs.
- Outlawing the clubs does not eliminate the poker community. It just encourages them to play in WA casinos or worse, underground games where fewer protections exist, and the connection to illicit activities strengthens.
- The ONLY money collected by "the house" is the $\$ 5-15$ membership fee which helps pay the bills for the place the poker is played. This is extremely cheap (by nearly a third) compared to average "Rake" and tournament fees paid to casinos across the country for a single day of poker.
- Money is NOT collected by the house from bets made at the poker tables
- Clubs are held accountable by the players who ensure that the prize pool reflects the number of entries in a tournament and that payouts are accurate which offers a level of protection and accountability for the players.
- Social gaming managers, poker players, and dealers all agree that regulation is necessary and welcome at these clubs. But outlawing poker clubs altogether is unnecessary.
- Poker is a game of skill and should not be considered a casino game of chance like bingo, keno, craps, and roulette, etc. (also See Appendix A). In fact, there are much fewer poker tables in casinos now due to less profitability of poker for the house than casino luck based games(craps, roulette, etc) and slot machines.


## Representative Evans (Carried the Bill from committee, Voted YES in HB 2190)

## 31:30 I wasn't terribly interested in this bill until folks testified.

- He listened to 2 of the 3 groups in favor of the bill who were representing out of state casino interests and 11 Oregon citizens who were against the bill with a total of 16 written testimonies, 13 against the bill and just 3 supporting the bill, so what is Representative Evans interested in if not the majority of people who oppose the bill?


## 32:40 "It's not about Poker. I like poker, I'm not terribly good at it"

- Poker is a game of skill. It is a game where one can find hundreds of books and countless hours of youtube videos discussing strategy. Players can make money, not because of pure luck, but because they put a lot of work in understanding the math, the odds, human psychology, and emotional discipline.


## 32:50 The law allows for social gaming. Social games are not considered gambling. Social games are fun, they are responsible opportunities for responsible people to come together, they are not supposed to be profit making.

- The argument here is that the establishment putting on the game will not profit. Why can't they profit from the occupation of their property? Poker players understand that the space has certain costs like power bills, sanitation, kitchen operation, etc. When we play poker in these rooms, we accept the agreement that we are playing a game on private property, and we accept the membership fee that comes attached. Since we are paying customers, we also have some leverage in discussing issues with management.

33:10 Private game where no House player, house bank, house odds exist. And where there is no house income from the operation of the social game. The house may not make any money from the operation of the game. House may not extract money from game participants. The players may reapportion the money they brought into the game.

- The house doesn't benefit beyond the initial membership fee. If this is inappropriate, then it stands to reason that all forms of "gambling" should be outlawed including billiards at a bar that charges a cover, or bets at a golf course where greens fees are charged. The house benefits ONLY from the membership fee. No amount of the "reapportioned" money at the poker table is given to the house. When a player wins a hand, ALL of that money goes to the player. The player can then decide to tip the person dealing or not. When considering the dealers as part of "the house", as Representative Holvey suggested later in the clip, I think it only makes sense that if someone is volunteering their time to ensure the game is fair and operates smoothly that they should be compensated.

The players understand this and tip generously when they win because they are appreciative of that person. Currently these people cannot be recognized as employees and are thus not part of the house. Further, "The house" does not take any percentage of this tip from the dealer. If the desire is to compensate dealers for their time and offer protections, poker players and clubs are happy to have this conversation because we all agree that dealers are integral to the safety and efficiency of the game.

## 34:10 Regarding Bingo "Another game that I suck at."

- The implication here is the comparison of Bingo to poker, Bingo is pure luck. You will not find as many training materials for bingo as you do for poker, nor will you find a paper advocating bingo as a game of skill like the one in Appendix A.


## 34:29 Daily, quarterly, and annual reporting is required for bingo halls.

- The logical response here is that if there is a market for poker, why can't we do require this for the poker clubs? Outlawing poker clubs will not eliminate the market, it will only go underground where this reporting becomes impossible.


## 34:43 Operating as de facto mini-casinos.

- Casinos is a misnomer- There are no "games of chance" played in these clubs. In fact, the only game of chance to my knowledge in any club I visit are the Oregon lottery machines. Unfortunately, the statutes lump poker in with these games of chance. This is an archaic and simplistic way to think about poker and is not supported by a federal government ruling in 2012 (See Appendix A). The fact that I win poker games consistently is a testament to how hard I have worked to learn, study, and practice the game much like a skillful chess, backgammon, or scrabble player. The federal court ruled poker as a game of skill. More evidence that poker is moving away from a game of chance is the fact that many casinos no longer have poker rooms because often the space is better utilized for games where the house has a huge advantage like in craps and roulette. Again, in Oregon social gaming poker clubs, "the house" or the social gaming establishments DOES NOT hold this advantage.


## 34:50 "Clandestine" for profit clubs are unregulated are all-cash enterprises. What could go wrong with all-cash enterprises?

- Every poker club concedes the point about unregulated gaming and is willing to work with law makers to remedy this. The second argument is a faulty assumption and a generality that suggests things go wrong with all-cash enterprise. Should I automatically be suspect of a dry cleaner, bar or other small business that accepts cash only because of the fees attached with credit cards? The wonderful thing about poker clubs is that the money is accounted for naturally by the players. Every time I play at Portland meadows I know that \$15 and only $\$ 15$ of my money is going to the house. The rest of my entry fee in a
tournament goes directly to the prize pool and I can do some math to ensure that $100 \%$ of the money is accounted for in the prize payouts(See page 6 for an example). Any other cash that leaves my possession is at the end of a tournament where I voluntarily tip the dealers after a job well done.


## 35:20 [The clubs are] Operating in the shadows where more than just poker games are being provided.

- The most popular clubs, enjoyed by decent and law abiding people, are not operating in the shadows. You can find them on Google maps. Also, is there evidence of the other activities from overt and transparent poker clubs like Portland Meadows, Final Table, or the Bend poker room? None that I have witnessed. Furthermore, outlawing these social clubs will not eliminate the poker community. There will always be a demand. If these clubs are outlawed, that demand will be serviced by truly underground and "clandestine" establishments that don't have the open and transparent games that poker players currently enjoy. This bill sends a community of thousands to play either in Washington where exorbitant fees and rake is taken by the house, or underground where no regulation, no taxation, and no protections will exist thereby putting those thousands of people at greater risk. So is the purpose of this bill really to protect the people?


## 35:25 Coincidentally Portland is known as the capital of sex trade and other things, like drugs etc and I'm certain there's no correlation between cash businesses, unregulation and that dubious honor (sarcastic tone).

- Is it known as the capital of these things? I wasn't aware of that. I'd like to see the data to back up such a claim. Furthermore, I would argue that pushing poker underground will only exacerbate these issues if they are true because it just draws legitimate gaming by responsible people like me and everyone I associate with closer to these problems. Again, those managers of the poker clubs have stated that they are happy to work with lawmakers to regulate poker in Oregon. Furthermore, what's the purpose of the sarcastic tone? Is it a way for him to not clearly state what he is thinking without directly saying it? As a former psychological operations soldier in the US Army, I recognize this as a tone that takes attention away from his poor assumptions and suggests corruption without any evidence nor any investigation.


## 35:40 With the help of a recently deceased Russian mobster and his crew: social gaming, at least in some places has transformed and evolved into something more.

- Is there evidence to support any of this? Does Rep. Evans have police reports and access to investigations? If he does, l'd like to see them as well. A recent article on the subject quoted Captain Mark Kruger, commander of the Police Bureau's Drugs and Vice Division who said "Gambling is not within our
priorities.' (Nigel Jaquiss for the Willamette Week, March 22 2017)". It sounds like these clubs have not been a problem in the cities in which they are located. Yes, poker in Oregon became one of the best places in America to play poker purely for value offered the players, but people still come primarily to play for fun, which Representative Evans suggests is not the case in these clubs.

36:00 This isn't the case in every social club. It's probably not the case in most social clubs, but it is the case in a few. What was once a friendly game of chance and luck has turned into a money making machine playing on people's addictions. Gambling should go on in casinos. Social gaming, gaming that is not benefitting the house should be regulated. I believe that they have a right to a regulated and safe environment to gamble. I also believe that our citizens have a right to work in a place that recognizes them as employees, with set hours, wages, protections.

- Representative Evans is advocating shutting down poker clubs so that the community, Oregon citizens, will be forced to go to standard Casinos that are money making machines playing on people's addictions. People are paying a LOT more to the house in fees in casinos to play poker, if they have a poker room at all. At Portland Meadows on any single day, I can play two poker tournaments for a one-time fee of $\$ 15$. In most casinos, I am paying a 20 dollar fee to play in ONE tournament and $\$ 40$ in fees to play in two. The takeaway is that the "house" is taking a very minimal 'fee' compared to the exorbitant fees charged in most casinos around the country including those in Washington and the Native American casinos found throughout the state. Again, ask yourself, who is this bill benefiting if I cannot play in these clubs? To the last points regarding dealers: again, all the poker players and staff agree with this and wish to work with lawmakers and the DOJ to create and implement fair regulations

37:35 It's illegal or it's not. Something is safer when it's regulated.

- No argument there, but social gaming poker clubs can be legal and regulated, and follow a lot of the ideals listed above. Futhermore, currently, players regulate the establishments. An example is in figure 1 below. Simple math allows players to account for the money exchanged. Despite this, poker players and club staff are happy to have a conversation with lawmakers to increase the accountability and regulation.


Figure 1 is a typical display on TV screens around all poker rooms when a tournament has started. In this case, the players have bought into the tournament for $\$ 50$ USD, and were given 1500 chips. There are 45 entries for a Total Pot size of $\$ 2,250$ USD. In this case, much like Portland Meadows, all the Buy-In money goes to the prize pool with NONE going to the house. Players can verify this is the case in a couple of ways. First they can add up the payouts from $1^{\text {st }}$ to $6^{\text {th }}$ place and verify that it adds up to the Total Pot, which it does: $905+515+290+225+180+135=2,250$. They can also multiply the number of entries and multiply by the Buy-in amount $45 \times 50=2,250$. This simple math ensures that the "House" is held accountable for the prize money and the buyins paid by participants.

## Representative Greenlick (Voted NO on HB 2190)

38:25 Odd court decision that named card rooms as casinos. Anyone who has been in a card room knows that card rooms don't resemble casinos. Video poker is much more similar to casinos.

- This is very true. Again, there are no games of chance where the house benefits directly from the action in the game. Most card rooms do not have these machines.


## Representative Witt (Voted NO on HB 2190)

41:20 Representative Evans again responding to a question from representative Witt about the closure of Portland Meadows's \$100,000 recently renovated poker facility. They would have to close down their \$2,000,000 per year enterprise, yes they would.

- Where is this $\$ 2,000,000$ figure coming from? If 200 people(a generous figure) came to play poker at Portland Meadows every day paying their 1 time $\$ 15$ dollar membership fee, that only adds up to half that 2,000,000 figure. An explanation of this figure would be helpful. Inflating or making up the facts is irresponsible if this occurred.

42:30 It may be possible, that because the bill is supported by out of state gambling operations, that one of its motives is the elimination of some of the competition from Oregon.

- During the public testimony, 2 of the 3 in support of the bill were from out of state casinos just north of Vancouver. Given the large number of dissenting testimonies on this bill, this argument is plausible.


## Representative Parrish (Voted YES on HB 2190)

43:40 Complaints from Oregon Bingo halls about being held to a standard that others weren't, namely the social gaming poker clubs.

- The obvious answer? Why can't poker clubs be similarly regulated, and not completely shut down. If they are outlawed, then there is no chance for regulation, the economic impacts of the game just simply remain underground, or are pushed to WA casinos.

44:00 At bingo halls, they announce the rules. They are very clear that the Oregon DOJ monitors this game. Regarding tribal casinos: "Their books are open"

- Poker clubs are happy to work with Oregon state to monitor poker games. The players also monitor the poker games to ensure that the prize pool reflects the terms and conditions agreed upon when entering the game(See Figure 1 above). Allow poker clubs to have this chance as well, but don't skip the step to totally outlaw them!


## 44:45 Representative Parrish speaks of the charitable bingo halls raise money for important causes like sending someone to the Olympics.

- I think that's great, but the players choose to support that by playing bingo in these places. Who is to judge another facility for offering a service that may give people as much joy as the person that went to the Olympics? Is that person's joy more valuable than another's? Is it more worthy? Representative Parrish's argument is an opinion and a subjective statement that should not be a major point in defense of this bill. Furthermore, the bingo dollars are going to the house regardless of where that money is going when it's in the house's hands. At the social gaming clubs, the money is reapportioned among the players.


## 45:00 When you are talking about 50,000 guaranteed payouts and no one is

 monitoring that.- Incorrect. The players monitor the payouts. Again, please refer to figure 1 above to understand that PLAYERS monitor that money. In addition to player regulation, the poker clubs welcome discussions about regulation from lawmakers and state officials.


## 45:25 If poker needs to come out of constitution, then let's have that conversation.

- Yes, let's have this conversation because the federal courts ruled poker as a game of skill that should not be lumped in with casino games of chance such as bingo, keno, roulette, and craps. In fact, many casinos are REMOVING poker from their floors because the casinos are not making as much on 4-12 hour poker tournaments as they are with slots and games of chance where they have a house advantage.

45:35 If I started opening up craps rooms and running them the same way poker tournaments were happening, that would be a problem.

- Again, craps is a game of chance that is played against the house. In a poker game without rake, the money, to use Representative Evans's words is reapportioned amongst the players. In craps when you lose, the money goes to the house. In social gaming poker clubs, when you lose, the money is appropriated to a different player who won the hand, or who got paid in a tournament. This craps comparison is a faulty one and should not be considered for arguments in support of this bill. It's like comparing apples to oranges. In my opinion, this argument shows how little the proponents of this bill know about poker and the social gaming poker model in Oregon.

45:50 You can't have illegal activity where there is liquor and lottery.

- You can't have illegal activity anywhere. That's not an argument for this bill. Let's make this legal, and regulate it.

46:08 If people want to work to get poker taken out of the constitution as a casino game of chance, we can have that discussion, but first let's shut the clubs down.

- Yes, we should definitely have this discussion, but in the meantime, shutting poker clubs down is completely unnecessary when regulation can be put in place to address the concerns of the representatives of Oregon and the proponents from Washington if we are assuming their true motive is to protect the citizens. For a detailed discussion on what makes poker a game of skill, please refer to Appendix A to read a white paper that references federal rulings and academic studies.

46:15 71\% of voters said they don't want casino gaming in our state. I've not heard that there are many complaints about poker clubs.

- Using the term casino gaming implies games of chance where the house is the clear winner praying on the addictions of citizens. Have you heard many complaints from people working or playing in these rooms. Are there complaints from non players? Have the police not said that there are few incidents that happen at these overt poker clubs? Is it coincidental that the Washington casino
interests are looking to outlaw this even though they are the ones who are the leaders in casino gaming that pray on the addictions of citizens? If they are advocates of responsible gaming, then they should have no problem allowing the social clubs to remain open, and be regulated by the state. This bill does not do that, this bill shuts them down completely.


## Representative Holvey (Voted YES on HB 2190)

## 46:90 We heard a lot of testimony in favor and in opposition to this bill.

- What he means is that at the public hearing on March $29^{\text {th }}, 2017$ there were 3 individuals to speak in favor of the bill, 2 of which represented Washington Casino interest and Washington Bingo interests. Opposing the bill were testimonies by 11 people from players, to dealers, to club managers. In addition, written testimonies were submitted with only 3 in support of the bill and 13 against the bill. As I finish this on May $7^{\text {th }} 2017$, I think you will find that many more are voicing their opinions opposing this bill.


## Conclusion

This document supports many of the reasons why I urge you to vote NO on HB2190. Missing are a lot of personal stories from poker players and staffers about how their livelihoods and their daily lives will be affected by outlawing poker card rooms in Oregon, but I am sure there have been plenty of appeals to you with those arguments. Know that in my own life, I would feel extremely disappointed if card rooms disappeared or went underground in the state. I would simply move to a different state. Oregon has the chance to make the social gaming poker model work and show the rest of the country that it is progressive about the game of skill that we poker players love so much. Poorly reasoned arguments in the House has pushed this unnecessary bill to your desks and I urge you to see through those arguments and think critically about the source of the bill, who is supporting it, and poker as a game that should not be lumped in with casino games of luck like craps, roulette, or bingo. Thank you so much for your time and your consideration.

Sincerely,
Steve Galer
District 8
PS. Please, if you have any questions about the content of this testimony, contact me at 910-798-8662 or email me at steve.galer82@gmail.com

# Appendix A 

# Games of Skill and Games of Chance: Poker as a Game of Skill by The Poker Players Alliance 

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INTRODUCTION:
GAMES OF CHANCE, GAMES OF SKILL
The Poker Players Alliance is a nonprofit organization whose members are poker players and enthusiasts from around the United States. The Alliance works to protect the legal rights of poker players and advocates rational gaming laws at the state and federal level.

In this White Paper, the Alliance describes the role that skill plays in determining the outcome of a game of poker, and offers an overview of the scientific studies that address that question. This paper devotes particular attention to Texas Hold'em, the most popular poker game and the one to which the most study has been devoted.

## POKER IS A GAME OF SKILL

As is true for similar games like golf, billiards, and bridge, when good poker players play against bad players, the good players consistently and routinely prevail. Players who enter golf and bridge tournaments pay a fee to enter, and earn a cash reward if they win, but these games are contests of skill because their outcome is determined principally by skill. See Two Elec. Poker Game Machs., 465 A.2d at 977 ("[i]t cannot be disputed that football, baseball and golf require substantial skill, training and finesse" even though "the result of each game turns in part upon luck or chance"); In re Allen, 377 P.2d 280, 281 (Cal. 1962) (bridge requires skill and is not a "game of chance"). So too with poker. To be sure, there is some accumulation of luck over the course of a poker match that will affect how individual players perform. That is also true, for example, of golf, where "changes in the weather may produce harder greens and more head 1 In Texas Hold'em, each player is dealt two face-down hole cards. A round of betting follows in which players can bet, raise other players' bets, or fold. Three community cards are then dealt face-up ("the flop"), followed by another round of betting, raising, or folding. Next, another face-up card is dealt ("the turn"), followed again by betting, raising, or folding. One final face-up card is dealt ("the river"), followed by another round of betting, raising, or folding. At the conclusion of this round, if more than one player remains (if every player but one has folded), the remaining players show their cards ("the showdown"), and the player who can make the best five card hand out of the two hole cards and the five community cards wins. 2 winds for the tournament leader than for his closest pursuers" or a "lucky bounce may save a shot or two." PGA Tour, Inc. v. Martin, 532 U.S. 661, 687 (2001). But, as in golf, skill is nonetheless dominant in poker play. The fact that every hand of poker involves multiple decision points (at each of the multiple rounds of betting), multiple decisions at each decision point (bet, call, raise, or fold), and innumerable factors that call for skill to evaluate each of those decisions (for example, the player's own cards, the odds of his hand improving, his sense of the strength of the other player's hand, his sense of the other players' perception of him), establishes that poker is a contest of skill.

Two general methods of determining the role of chance in an activity have developed in state courts to analyze the issue of whether a game is one of skill or chance. The first method is to evaluate the game's structure and rules. If the structure and rules allow sufficient room for a player's exercise of skill to overcome the chance element in the game, the game is one of skill and the gambling laws do not apply. See, e.g., In re Allen, 377 P.2d at 281-82 (bridge is not gambling). A second approach, which the scientific community favors, is an empirical approach that examines the actual play of the game. Using the well-accepted premise that in a game predominated by skill the more skillful players will consistently perform better, this approach looks for specific instances over repeated trials to see if in fact the "more skillful players tend to score better than less skillful players." See, e.g., Patrick Larkey et al., Skill in Games, 43 Management Science 596, 596 (May 1997).... Each method independently - and certainly both taken together-confirms that poker is a game of skill.

## I. MAKING CORRECT DECISIONS IN POKER REQUIRES A DIVERSE ARRAY OF SOPHISTICATED SKILLS THAT GAMES OF CHANCE DO NOT

The essence of poker is correct decision-making. Each time it is a player's turn to act, he must choose among several decisions, typically whether to bet, raise, or fold. During the course 3 of a single session, a player will have to make hundreds of those decisions. In order to make the optimal decision the player must take into account a variety of factors. The importance of decision-making in poker cannot be understated: in a recent statistical analysis of millions of actual poker hands, the players' decisions alone rather than the cards dealt accounted for the result in $76 \%$ of all the hands played. See Paco Hope \& Sean McCulloch, Statistical Analysis of Texas Hold 'Em at 5 (March 4, 2009)..... In other words, in those $76 \%$ of hands, all but one player folded, making the remaining player the hand's winner, and the actual cards were never revealed. Moreover, according to this report, in roughly $50 \%$ of hands that do play to a showdown, FN: 22 A "showdown" is when all of the cards have been dealt and the players still in the hand expose their hold cards and the best hand wins the pot. It is only at the showdown where the winner is determined by the fall of the cards rather than by which players have folded in response to the moves of other players. A player who would have won had he stayed in will have folded, meaning that in only $12 \%$ of hands-that is, half of the $24 \%$ that play to showdowndoes the player who was dealt the "luckiest" hand win. With player decisions deciding close to $90 \%$ of all poker hands, the players who consistently make good decisions will win. Those who do not will generally lose.

To make the right decisions consistently, poker players must employ a range of skills. By skill, the PPA does not mean simply a sophisticated knowledge of odds, which is merely a prerequisite to competent poker play. To be skilled at poker, players must develop an ability to directly influence the way an individual hand turns out-who collects the pot at the end, and how much is in the pot. As one court recently held, "[s]uccessful players must possess intellectual and psychological skills. They must know the rules and the mathematical odds. They must know how to read their opponents' 'tells' and styles. FN 3 They must know when to hold and fold 3 Styles and tells are not unique to the physical world, but are also involved in online poker. The tells and styles in online poker include betting amounts, betting habits, speed and timing of bets and raises. They must know when to hold and fold and raise. They must know how to manage their money." Pennsylvania v. Dent, No. 2008-733, slip op. at 13-14 (Pa. Ct. Com. Pl. Jan. 14, 2009).....

Of course, it is true that individual moves in poker are called "bets." But that vocabulary is misleading. The "bet" is not a wager on a chance event. Unlike "bets" in poker, actual wagers do not alter the outcome of the event. A bet on the Super Bowl does not change the score; bets on roulette wheels are placed before the ball is dropped. Bets at a poker table are different. What is called a "bet" in poker is really a "move" like a move in any other game: it is a strategic maneuver designed to provoke a desired reaction from an opponent.

The importance of these moves is heightened because, in typical complex poker games, a player must contend with a large number of decision-making stages and a variety of possible courses of action at each stage. In each hand of Texas Hold 'Em (or of similar games, such as Omaha), a player has four principal decision-making opportunities: the first after he receives his down cards, and the next three as the common cards are turned over in three stages. Draw games require three decisions-a "bet" after the
initial draw, a decision about which and how many cards to exchange for new cards, and another "bet" after the exchange. Stud games, played with an initial deal of two cards and then additional cards dealt one at a time until each player has a total of either five (five-card stud) or seven (seven-card stud) cards, require either four or six moves, the first after the initial deal and the rest after each additional card. At each stage the player has available to him many courses of action. The focus of each decision is how worthwhile it is to risk additional chips relative to the chance of winning all the chips in the pot in that hand. These decision-making stages reduce the element of chance in the game, since logical decisionmaking at each of these stages allows the player to control whether, and how much, he wins or loses.

To make optimal moves at each of these stages, players must be mathematicians, observers of human nature, and capable deceivers. Poker players use their "bets" principally to communicate with, manipulate, and intimidate their opponents. Even in the $26 \%$ of hands that do go to a showdown, the players typically are not "betting" on the outcome of a chance event. For example, when a poker player bets as a bluff, he is not hoping that his cards will prove to be better than his opponents' cards. Instead, the player hopes to win the pot by convincing his opponent to fold the best hand. As noted above, in roughly $50 \%$ of hands that do play to a showdown, a player who would have won had he stayed in will have folded, meaning that in $88 \%$ of hands the player who eventually won the hand did so by "convincing" his competitor to fold. That fact attests to the skill required of the winning player in bluffing his competitor into folding. See Hope, Statistical Analysis at 5. Of course, a player trying to chase another player out may get called and lose. But what he was betting on was not what cards his opponents held-the essence of gambling. He was betting to influence what his opponents would do-the essence of strategy.

Skeptics claim that "no amount of skill can change a deuce into an ace." It is true that skill cannot change the cards. But skill at poker allows a player with a deuce to make his opponent believe he has an ace, causing his opponent to fold a hand that would have won the pot. As noted, more than $75 \%$ of all hands are won when one player bets and all remaining players fold in response. See Hope et al. at 5; see also Howard Lederer, Why Poker Is a Game of Skill (May 6, 2008) (unpublished manuscript....). In some of these hands, a player with a bad hand will have bluffed out a player with a better hand, overcoming the luck of the draw. Further, poker is not played one hand at a time. Over the course of an actual game, consisting of multiple hands, the skilled player will consistently prevail, regardless of an occasional unlucky turn of the card.

In any event, the fact that the winner of a small percentage of hands will be determined to some extent by the luck of the draw is insufficient to refute the conclusion that poker is a game predominately of skill. Many games have a chance element, and it is easy to say, after the fact, that the chance element was dispositive in any particular instance of play. For example, in a game of golf played on a windy day, there would always be the chance that the wind would blow the ball off target, causing a player to lose a few strokes, and possibly the game. See, e.g., Martin, 532 U.S. at 686-87 (2001) ("[G]olf is a game in which it is impossible to guarantee . . . that an individual's ability will be the sole determinant of the outcome."). That is a case in which a chance element, out of the golfer's control, played a dispositive role in deciding the outcome of what is generally acknowledged to be a game of skill.

To appreciate the role that chance plays in almost every game, it is important to keep in mind just how few games exist in which luck plays no role at all. Chess is the prototypical example of a game of pure skill, because both players have perfect information regarding the other's pieces and all that matters is how skillfully a player deploys them. But such games of pure skill are exceedingly rare; at least some degree of luck plays a substantial role in almost every game people play. In fact, between two equally matched chess players, the coin flip to determine who plays black or white may have an effect on the outcome. See, e.g., Jonathan Rowson, Chess for Zebras: Thinking Differently About Black and White at 193 (Gambit Publications 2005) ("the conventional wisdom is that White begins the game with a small advantage and, holding all other factors constant, scores approximately 56\% to Black's 44\%.").

Additionally, consider Scrabble, another game where chance plays a role. As in poker, skill largely determines the outcome in Scrabble, even though one could say of that game too that no amount of skill at Scrabble can turn a "Q" into an "E." The outcome of a game of Scrabble may in some cases turn on
the draw of the tiles just as in some cases the outcome of a round of poker may turn on the draw of the cards, but that does not make either game a game of chance.

Furthermore, the outcome of a hand of poker is not only who wins and who loses, but how much each player wins or loses. A player's assessment of his own cards and what cards the other players are holding will affect whether and how much the player bets, meaning that even in the $12 \%$ of hands that reach a showdown and in which the best hand dealt wins the pot, the players' skill will determine how much is won and how much is lost. Skill thus means that a good player will lose less with a deuce and win more with an ace than a bad one.

The importance of skill in poker is further demonstrated by the fact that a novice poker player can improve his talents and raise the level of his game through study and accumulating game experience. After only a short time, a player can acquire basic game skills, such as learning when to fold and how to make the basic calculations. The more a person continues to practice and learn, the more his skills will improve, something that is also true for chess, golf, and bridge players. FN 4 A significant literature is available to help the novice player develop. See, e.g., Gus Hansen, Every Hand Revealed (2008); Daniel Negreanu, Power Hold'em Strategy (2008); David Apostolico, Machiavellian Poker Strategy: How to Play Like a Prince and Rule the Poker Table (2005); Dan Harrington, Harrington on Hold 'Em: Expert Strategy for No Limit Tournaments (2005); Eric Lindgren, World Poker Tour: Making the Final Table (2005); Blair Rodman \& Lee Nelson, Kill Phil: The Fast Track to Success in No-Limit Hold 'Em Poker Tournaments (2005); Doyle Brunson, Doyle Brunson's Super System: A Course in Power Poker (2002); David Sklansky, Tournament Poker for Advanced Players (2002); David Sklansky, The Theory of Poker (1994)

All of the strategic decision making skills required are the same for online poker and for live poker. A player will make the strategic decisions discussed above based on deductions about 4.8 an opponent that are derived from the opponent's moves themselves and from remembered (or recorded) prior game play. In fact, applying the lessons of prior game play to the current situation-much like a caddy's notes on previously played holes in a golf tournament-is the skill that may be most essential to poker success. Analyzing that prior history and predicting opponents' behavior is the same whether the play is online or live. And while a player may learn something from looking at another live player-watching facial expressions and the like for tells-online poker requires different but equivalent sensitivity to an opponent's play. For example, players often send messages to one another during online poker play, and learning to make deductions about a player's style and hand from those messages is a skill. Similarly, being able to learn from the timing of opponents' moves is a skill.

Indeed, online poker involves special skills not required in live play, and has characteristics that reduce the role of chance in determining outcomes. First, online play typically involves many more hands than an ordinary live poker match, because hands are dealt much faster and many players play multiple tables simultaneously. Whatever element of chance is involved in individual hands thus evens out as a statistical matter more quickly than in live play. Second, players have access to tools that help heighten their play. For example, popular programs that players can run alongside their games can help them to track large quantities of data about other players' betting patterns in great detail. Such programs help smart players make even smarter moves, based to a larger degree on logic and strategy than they are on intuition. And of course being able to process and apply a large amount of detailed data about a number of opponents' betting histories is a skill in itself. For all these reasons, online poker requires specialized skills that live play does not.

Together, the specific skills required to play poker in general and online poker in particular, the demonstrated fact that poker hands are won by maneuvering rather than in a showdown the vast majority of the time, and the fact that in every hand the players' skill determines the amounts won and lost by each player, show that skill is required to be a winning poker player.

## II. SKILLED PLAYERS BEAT SIMPLE PLAYERS IN SIMULATED AND REAL POKER PLAY

Several recent studies have definitively demonstrated that a player must be skilled in order to win at poker. Indeed, every single study to examine this issue has reached the very same conclusion: poker turns on skill. Until quite recently, any rigorous analysis of whether skill or chance predominated in poker
could involve only an assessment of the rules of play themselves, because no research had assembled a statistical assessment of the role of skill in poker. The subject has now received academic attention, and the studies uniformly confirm that skill determines the outcome in poker games. This reflects an evolving understanding, and popularization, of the sophistication of the game of poker.

In one recent game-theoretical study, for example, the author used a computer simulation to prove that a combination of the skills discussed above is required in order to win consistently at poker. See Larkey, supra. For his 2001 paper on "Skill in Games," Professor Larkey built a computer model of a simplified version of poker. See id. The "general behaviors mandated for player success" at this simplified game were: (a) observation, (b) memory, (c) computation, (d) knowledge of the random device, (e) misleading opponents about the actual strength of your position, and (f) correct interpretation and forecasts of opponents' behaviors. Id. at 597. To evaluate the relative importance of these areas of skill, singly and in combination, the authors 10 programmed twelve different robot players who would compete against one another. Each was programmed to use a different combination of strategies. Id.

The simplest robot only knew the rules of the game-when to bet and how much it was allowed to betbut aside from that essentially played randomly and without regard to its hand. A second robot understood the relative values of the hands. It would bet aggressively when it was dealt a good hand, and hold back when it got a bad hand. It ignored its opponents, while three other similar robots made conservative or aggressive assumptions about what the other player's hands contained. Another robot bluffed aggressively. The more sophisticated robots watched their opponent's betting patterns and made deductions about what those opponents were likely to be holding. Some of these robots would bluff by playing randomly a small percentage of the time in order to confuse other opponents capable of watching and learning.

The authors ran a tournament that pitted each robot player against each other player in 100 one-on-one games. Over the course of the tournament, the random-play robot won only $0.4 \%$ of its games. It lost $\$ 546,000$. The four robots that dominated the contest were the ones capable of sophisticated calculations about their odds of winning. The robot that could only calculate odds came in fourth. The robot that could calculate odds and that also bluffed occasionally came in third. But the two most successful robots of all were the robots that most closely emulated real poker players. A robot that not only calculated odds but also observed fellow players and adjusted its style of play came in second at $\$ 400,000$. The best robot of all calculated odds, learned about its opponents, and bluffed occasionally in order to throw its competitors off track.

Even in the simplified game of poker designed for the study, with simple hands and only two rounds of betting, the best robot was the robot with the essential skills that every poker 11 player learns, practices, and tries to master. It calculated the odds it was playing against, which was essential to its success. But it outperformed the others by deceiving its competitors with strategic bluffs while learning about and adjusting to its competitors' style of play. It won $89 \%$ of the hands it played, and earned $\$ 432,000$. See Larkey at 601, table 2. A substantial number of other studies-including every study ever to have addressed the issue-reach the same conclusion as Professor Larkey.

- Noga Alon, Poker, Chance and Skill (attached as Ex. E.). Professor Alon provides a detailed analysis of several simplified models of poker in order to allow a precise mathematical analysis. Though simplified, these models capture many of the main properties of sophisticated poker play. The article concludes that skill is the major component in deciding the results of a long sequence of hands because knowledge of hand probabilities is a learned skill fundamental to determining and implementing an advanced strategy; and an advanced strategy will earn more than a strategy of an unskilled player in the long run. As the common practice is to play many hands, the conclusion is that poker is predominantly a game of skill.
- Laure Elie \& Romauld Elie, Chance and Strategy in Poker (Sept. 2007) (unpublished manuscript, attached as Ex. F). The Elie study expands on Professor Alon's work by testing its hypothesis not on a simplified version of poker, but on games with 2 or 4 players (up from Alon's two-player model), with or without blind betting, and with constant or variable stakes. Using computer simulation, Elie \& Elie
confirmed that the quality of a player's strategy-the skill with which the player plays the game-has an overriding influence over the game's outcome.
- Abraham J. Wyner, Chance and Skill in Poker (Apr. 2008) (unpublished manuscript, attached as Ex. G). Reviewing the Alon and Elie \& Elie studies, Professor Wyner concludes that both studies accurately described a salient fact about the game of poker: a skilled player who can calculate the odds and bet and bluff on that basis has a substantial advantage over players who lack these skills.
- Peter Borm \& Ben van der Genugten, On a Measure of Skill for Games with Chance Elements (1996) (attached as Ex. H). In order for laws restricting games of chance to be sensibly applied, Borm and van der Genugten argue that some threshold level of skill must be established beyond which games cease to be games of chance and become games of skill. They developed a scale by which a game of pure chance ranks " 0 " and one of pure skill ranks "1," and then sought to rank a series of games on that scale. For a " 0 " game, a the odds of a beginner winning are the same as those the most advanced player winning; in a "1" game, the most optimal player can always win. Blackjack, considered a game of chance, is ranked 0.16 . Based on their mathematical model, the authors conclude that an extremely simplified "poker" game, with three players playing with only four 12 cards, valued at $10,20,30$, and 40 , has a skill level more than double that of blackjack.
- Rachael Croson, Peter Fishman \& Devin G. Pope, Poker Superstars: Skills or Luck? 21 Chance, No. 4, 25-28 (2008) (attached as Ex. I). The authors compared data from 81 poker tournaments and 48 Professional Golfers' Association Tournaments in an effort to determine whether the success achieved by the elite poker players-individuals who have finished in the top 18 of at least one highstakes Texas Hold'em tournament-is due to skill or luck. Analysis of the data led the authors to conclude that poker seems to involve a significant amount of skill because success in a given tournament can be predicted based on past success in tournament play. The authors also found that there are quantifiable skill differentials between elite poker players which are similar to skill differentials between comparably elite golfers.
- Gerard Cohen, Consultation on Professor Alon's Poker, Chance and Skill (unpublished manuscript, attached as Ex. J). Professor Cohen confirms the validity of Professor Alon's conclusions. According to Cohen, players must adapt their strategies to the number of players (by betting less often and with a hand that is stronger as this number increases). Moreover, the skilled player must take into account in his or her strategy the position and the order of players around the table. The importance of using these skills in real poker play, which is even more complex than in Alon's case studies, leads him to the conclusion that skill is predominant in determining poker outcomes.
- Zvi Gilula, Expert Opinion (unpublished manuscript, attached as Ex. K). Professor Gilula concludes that winning a poker tournament is depends significantly more on the participants' strategic capabilities and understanding than on luck. He notes that players must learn to: evaluate, within a predetermined interval of time, the strength of the hand that he holds in each stage of the game; mask his own strategy; evaluate his opponents' strategies; and translate the insights which arise from using these other abilities into a rational decision making policy. The effect of these abilities is that the probability for an insightful player with strategic skills to win a poker tournament, when playing against a player who does not have these skills, is much higher than $50 \%$.
- Paco Hope (Cigital Inc.) \& Sean McCulloch, Statistical Analysis of Texas Hold'Em (Mar. 4, 2009), supra. Hope and McCulloch examine 103 million hands of a particular poker variant-Texas Hold' Emplayed on PokerStars. For each hand analyzed, they ask whether the hand ended in a showdown, and if so, whether the player with the best two cards won the hand. They conclude that in the majority of cases $-75.7 \%$ of the time - the game's outcome is determined with no player seeing more than his or her own cards and some or all of the community cards. In those hands, all players folded to a single remaining player, who took the pot. In the remaining $24.3 \%$ of hands that go to a showdown, where cards are revealed to determine a winner, only $50 \%$ are won by the player who, had everyone stayed in the game, would have held the winning hand. The 13 remaining hands are won by a player with an inferior hand,
because the player with the best hand folded. From this, the authors determine that the winner in a majority of games is determined by something other than randomly drawn cards.
- Kyle Siler, Social and Psychological Challenges of Poker, Journal of Gambling Studies (Dec. 25, 2009) (attached as Ex. L). After discussing the challenges of poker, Siler observes the effects of various strategies on win rates, and concludes that certain strategies work with varying degrees of success depending on the skill of other players in a game and the stakes played for. Siler also observes that a high rate of hands won correlates negatively with the amount of money a player wins, particularly in lower stakes games, because the players in those games tend to "overweight frequent small gains vis-à-vis occasional large losses." Siler's research at least implicitly—and indeed, fairly explicitly-reveals something similar to the other studies cited here: different strategies produce can produce substantially different outcomes, something that would be relatively surprising in a game dependent heavily on chance.

The number of identifiable skills required to excel at poker and the simulations and studies just discussed all predict that, in real life, the more skilled players will win. In fact, that is what actual poker play makes clear. The best poker players beat other poker players as often as the best golfers beat other golfers, if not more often. It is true that poker has a "random device" (see Larkey at 597) that introduces short term uncertainty into each hand, but over time the randomness of the cards evens out and all players eventually get the same share of good and bad hands. Their results differ based on how skillfully they play those hands.

A striking example of the limited role that the cards play in determining the outcome of poker matches may be found in the recent story of Annette Obrestad, a 19-year-old poker prodigy who beat 179 other players-without looking at her own cards (except one peek on one hand). See Shawn Patrick Green, Online Poker: Interview With Annette 'Annette_15' Obrestad, 14 CardPlayer.com (Aug. 12, 2007). FN 5 http://www.cardplayer.com/poker-news/article/2536/online-poker-interview-with-annette-annette-15-obrestad, last accessed Feb. 9, 2009. Obrestad's feat shows it is the player's skill rather than the deal of the cards that determines the outcome of poker play.. FN 6 This example also refutes the conclusion that the "chance" of what a player is deal as initial hole cards has a substantial affect on outcome; it cannot affect someone who never looks at them.

The same result is demonstrated by comparing the results of recent golf and poker tournaments. In the $25-y e a r$ period beginning with 1976 and ending in 2000, 21 different players won the World Series of Poker. One player won three times in that span (Stu Ungar), and three more players won twice (Johnny Moss, Doyle Brunson and Johnny Chan). Three of these repeat winners won back-to-back wins in consecutive years (Brunson, Ungar and Chan). Fourteen of the twenty-one were "repeat finalists" who finished among the top ten in one or more of the other tournaments.

In the same period, there were twenty-two different winners of the PGA Championship, and three multiple winners. Only Tiger Woods won back-to-back titles. Fifteen of the twentytwo champions made it into the top ten in another Championship. These numbers confirm that poker requires as much skill as golf to win consistently. Accord Croson, Fishman \& Pope, supra, at 14. Two recent legal analyses reached the same conclusion. See Anthony Cabot \& Robert Hannum, Poker, Public Policy, Law, Mathematics, and the Future of an American Tradition, 22 T.M. COOLEY L. REV. 443 (2005) (conducting Texas Hold 'Em simulations to determine that skilled opponents beat unskilled ones); Michael A. Tselnik, Check, Raise, or Fold: Poker and the Unlawful Internet Gambling Enforcement Act, 35 HOFSTRA L. REV. 1617, 1664-65 (Spring 2007).

In sum, there can be no comparison between poker and a quintessential game of chance, like a slot machine, which has "an outcome that is decided solely by the circuitry of the machine that was programmed into it when its software was created. . . . [T]he player has no ability to affect the outcome of the game other than playing the game enough times that the laws of probability, and the pre-programmed circuitry, will allow him to win something at some point." People v. Delacruz, 872 N.Y.S.2d 876, 880 (N.Y. City Crim. Ct. 2009). Poker is not a game of chance.

## CONCLUSION

As noted above, the common test for whether an activity is gambling or not is whether chance or skill predominates in determining the outcome of the activity. A minority of states apply a variant of this test asking whether chance plays a material or significant role in determining that outcome. For all of the reasons just stated, under any of these tests, poker is not gambling. Certainly, as the Pennsylvania decision cited above squarely held, skill predominates over chance in determining poker outcomes. See Dent, slip op. at 14.

