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ARTICLES

THE PREDOMINATE GOLIATH: WHY PAY-TO-PLAY DAILY FANTASY SPORTS ARE GAMES OF SKILL UNDER THE DOMINANT FACTOR TEST

JEFFREY C. MEEHAN*

I. INTRODUCTION

My s**t doesn’t work in the playoffs. My job is to get us to the playoffs. What happens after that is f***ing luck.

- Billy Beane, Oakland Athletics GM1

I don’t mind variance. Actually, I think the biggest hurdle you must overcome to establish yourself as an elite (and profitable) daily fantasy player is to not only tolerate variance, but to embrace and utilize it.

- Jonathan Bales, Author and DraftKings Pro2

*Received his J.D. and MBA from Suffolk University Law School in 2015 and received a B.S. in Sport Management from Fisher College in 2011. He would like to thank his parents, Jeff and Patti Meehan; his sisters, Marissa and Katherine; his fiancée, Lauren Dahl; and the rest of his family for their unwavering love and support. Jeff would also like to thank Craig Heath and Connor Flahive for their guidance and support on this project.

1. MICHAEL LEWIS, MONEYBALL: THE ART OF WINNING AN UNFAIR GAME 274 (2003). This was Mr. Beane’s response to the author questioning why he was so detached from his Major League Baseball (MLB) team’s playoff games after being much more engaged during the regular season. See id. Throughout the book, Beane explains how he believed he could find success and market inefficiencies in roster construction over a 162 game regular season but that the sport was too volatile on a daily basis to predict playoff success. See generally LEWIS, supra note 1.

2. JONATHAN BALES, FANTASY BASEBALL FOR SMART PEOPLE: HOW TO PROFIT BIG DURING MLB SEASON 9 (2015). Mr. Bales is the founder of RotoAcademy as well as a writer for the New York Times and various other websites. He is recognized as a top intellectual within the daily fantasy sports industry and has authored several books on how to profit from daily fantasy sports during the football
Daily Fantasy Sports (DFS) is one of the fastest growing industries in the United States. DraftKings, Inc., a leading daily fantasy sports platform, recently reported revenue growth of 650% between fiscal years 2013 and 2014 with user entry fees rising by 575% during that same time period. The Boston based company expects to pay out roughly $1 billion in prize money to its users in 2015, or roughly 230% more than the $300 million it paid out this past year. With projections for 2015 revenues ranging between $100 and $150 million, it is no wonder that conglomerates have invested hundreds of millions of dollars into leading companies within the DFS industry.

Despite its fast paced growth, support from professional sports leagues, and countless examples of consistently profitable users, the DFS industry is still battling the stigma that it is a form of gambling. Scholars have opined that most federal laws aimed to combat gambling have little to no effect on the legality of the DFS industry and that specific carve-outs providing legal protection to traditional season-long fantasy sports should extend to DFS. However, others have noted that there is currently no blanket immunity under federal or state law for daily fantasy sports and that legality within the industry depends on the rules of a particular game. As a whole, the fantasy sports and baseball seasons. He publishes regularly on all things daily fantasy at numerous websites, including RotoGrinders.com and DraftKingsPlaybook.com.

3. “DFS” is a widely held acronym for “daily fantasy sports” and will be utilized throughout this Article to refer to the game itself on a satellite level. The term may also be used to identify the entire daily fantasy sports industry subject to context. See id. at 29.


5. Id.

6. For example, DFS site FanDuel is backed by the venture capital arm of Comcast, and multiple reports have said that Walt Disney Co., owner of sports industry leader ESPN, has agreed to invest $250 million in DraftKings with the deal giving DraftKings a valuation of $900 million. Matthew Rocco, MLB, ESPN Bank on Daily Fantasy Sports, FOX BUS. (Apr. 16, 2015), http://www.foxbusiness.com/industries/2015/04/16/mlb-espn-bank-on-daily-fantasy-sports/.


industry has seen very few challenges to its legality, and there has been minimal action taken against the legality of DFS.\textsuperscript{10}

The Tenth Amendment to the United States Constitution delegates the ability to determine whether an activity constitutes illegal gambling to individual states.\textsuperscript{11} As discussed herein, the legality of an activity often hinges on its classification as a game of skill or chance under common law analysis. Within this Article, I will demonstrate that daily fantasy sports should be considered games of skill under analysis followed by the majority of states by showing that player skill predominates random chance in the outcome of daily fantasy games using DraftKings, Inc. and daily fantasy baseball as a case study.

II. BACKGROUND OF DAILY FANTASY SPORTS

A. History of Daily Fantasy Sports

The history of the traditional fantasy sports industry has been well chronicled by scholars and authors alike.\textsuperscript{12} It has morphed from its humble beginnings as a fun “tongue-and-cheek exercise” between New Yorkers in the 1980s\textsuperscript{13} into a multi-billion dollar industry with over forty million participants.\textsuperscript{14}
However, the majority of the current market for fantasy sports has been attributed to the exploding growth seen in the DFS industry since 2011. In October of 2014, Fantasy Sports Trade Association President Paul Charchian commented that

> There has never been a bigger change in [the fantasy sports] industry than what’s [sic] happened with Daily Fantasy Sports over the past two or two and a half years. We’ve [sic] had more investment in the fantasy industry over the last year than we have had in the entire history of the entire fantasy sports industry.\(^{16}\)

Former Internet poker player and entrepreneur Kevin Bonnet has generally been credited as the inventor of the first daily fantasy sports platform when he launched FantasySportsLive.com in June of 2007.\(^{17}\) The downfall of Bonnet’s Internet poker career and inspiration for the DFS industry ultimately arose from the same source. The Unlawful Internet Gaming Enforcement Act of 2006 (UIGEA) “prohibits gambling businesses from accepting bets or wagers over the Internet, effectively shutting down online poker . . . in the United States.”\(^{18}\) However, the UIGEA also included a carve-out specifically exempting fantasy sports from prosecution.\(^{19}\) Today’s DFS industry owes most of its existence to the passing of the UIGEA.\(^{20}\)

Many of the original DFS sites were eventually sold to competitors or failed


16. Id. President Charchian was commenting on the $110 million invested in the two leading DFS companies FanDuel and DraftKings in the fall of 2014. Id. This brought total venture capital investing in the two companies to $160 million since their inception at that point in time. Id.

17. See nigeleccles, Comment to Daily Fantasy Sports Inventor, ROTOGRINDERS, https://rotogrinders.com/threads/daily-fantasy-sports-inventor-255987 (last visited Dec. 14, 2015) (FanDuel CEO Nigel Eccles credits Bonnet’s site as one of the first sites that was successful at DFS and believes he was the first to market as well). See generally KEVIN BONNET, ESSENTIAL STRATEGIES FOR WINNING AT DAILY FANTASY SPORTS (2014).


2015] PAY-TO-PLAY DAILY FANTASY SPORTS 9
due to poor business modeling.\textsuperscript{21} Even Fantasy Sports Live would exit the daily fantasy industry in June of 2013 when it was sold due to financial issues stemming from a lack of outside funding.\textsuperscript{22} Today’s leading companies in the DFS market, FanDuel and DraftKings, were launched in 2009 and 2011, respectively.\textsuperscript{23} Both companies have had outstanding success at obtaining outside funding, and their ever-intertwining relationships with professional sports leagues act as an assurance to users that these platforms will be around for a long time.\textsuperscript{24}

B. How to Play Daily Fantasy Sports [Generally]

The focus of this Article is on the daily fantasy baseball product offered on the DraftKings.com platform. However, the following satellite synopsis also holds true for the basketball and football daily fantasy products offered by DraftKings.\textsuperscript{25} After setting up and depositing funds into a DraftKings account,

\begin{itemize}
\item For example, SnapDraft.com, the first main competitor of Fantasy Sports Live, ultimately failed due to charging a 20% “rake” (i.e., percentage of total entry fees taken by the site as its payment) that made it next to impossible for even the most skilled DFS player to profit. This high rake percentage coupled with poor customer service and an inferior product are cited as reasons for the fall of SnapDraft. \textit{Id.}
\item DraftKings CEO Jason Robins co-founded and ran DraftKings with two friends out of co-founder Paul Liberman’s apartment during the company’s infancy. The company has seen its user base rise from 200,000 users to 2 million in the last year alone. FanDuel founder Nigel Eccles claims he started his company because he felt that sports fans were being underserved by the fantasy sports industry, even though they are one of the most passionate consumer markets around. Kilgore, supra note 18.
\item In return for Walt Disney Company investing $250 million, DraftKings reportedly has committed to spend north of $500 million in advertising dollars on Disney Co. subsidiary ESPN’s platforms in coming years. Shalini Ramachandran & Amol Sharma, \textit{Disney to Invest $250 Million in Fantasy Site DraftKings,} WALL STREET J. (Apr. 3, 2015, 3:33 PM), http://blogs.wsj.com/cmo/2015/04/03/disney-to-invest-250-million-in-fantasy-site-draftkings/. In 2013, MLB purchased a financial stake in DraftKings. In the summer of 2014, the National Basketball Association (NBA) announced a partnership with FanDuel, which was reported to grant the NBA at least 2.5% ownership in the company. \textit{Id.} The National Football League (NFL) recently conveyed that its clubs could sign advertising deals with daily fantasy sites provided that the deals only allow clubs to be firmly locked in to the sites for one year. Daniel Kaplan, \textit{NFL Tells Teams They Can Sign One-Year Daily Fantasy Deals,} SPORTSBUSINESS DAILY (Mar. 25, 2015), http://m.sportsbusinessdaily.com/Daily/Closing-Bell/2015/03/25/NFL-fantasy.aspx.
\item This general synopsis applies to the basic structure of contests offered on FanDuel.com as well. There are other daily fantasy sites, such as FantasyAces.com, Victiv.com, DraftDay.com, SportsTradex.com, and countless others. However, these platforms are beyond the scope of this Article, and this explanation should not be mistaken to be a catch-all breakdown of all daily fantasy sports products. \textit{Daily Fantasy Sports Site Reviews,} ROTOGRINDERS, https://rotogrinders.com/reviews (last visited Dec. 14, 2015).
\end{itemize}
there are three basic steps required from a user in order to successfully enter a DraftKings contest.

1. Select a Game Type

There are two main types of gaming offered within daily fantasy sports: Cash Games and Tournaments. A Cash Game is considered by DFS players to be any contest that pays out at least one-third of its entrants. For example, if there are ninety-nine players entered into a league, the players with the top thirty-three scores will receive some amount of winnings. The most common forms of Cash Games are 50-50 and Heads-Up contests. A 50-50 contest will distribute 90% of entry fees to the top 50% of the scoring field, and DraftKings retains the remaining 10%; the bottom 50% of the field receives no payout. Heads-Up contests follow the same structure except the contest is between two players instead of the larger fields found in 50-50 contests.

Tournaments on DraftKings are also known as Guaranteed Prize Pools (GPP), and they typically only pay out to the top 20% of the field in a tiered structure. For example, a GPP of $200,000 may be offered with a limited number of spots available to enter. The number of spots typically will fluctuate based on the entry fee, but the $200,000 prize pool remains the same. For example, say DraftKings sets a $200,000 GPP with a $300 entry fee and 740 seats. The contest will run and the payouts will be guaranteed even if they do not fill all the contests seats. However, it is rare that one of these contests will not fill up. In our example, the seats would generate $222,000 based on the entry fee of $300. DraftKings would keep the $22,000 excess amount and would pay out the remainder of the pool based on point rankings. The first place entry might receive $30,000, second place would get $20,000, third place would get $10,000, and so on and so forth, until the prize is fully paid out based on the pre-determined distribution. Typically the players in the top 20% of the scores

26. BALES, supra note 2, at 30.
27. The 10% is known as the “rake” and is the amount DraftKings keep as revenue for allowing players to use the services on its site. Studies have found that lowering the rake of a site has a negative correlation with the number of players who can profit from playing DFS. Blinders, How Lower Rake Dramatically Increases the Percentage of Profitable Players, ROTOGRINDERS, https://rotogrinders.com/articles/daily-fantasy-spors-rake-increases-percetatge-of-profitable-players-9661 (last visited Dec. 14, 2015).
29. This example is based off an actual DraftKings contest offered on April 22, 2015. The contest was called the “MLB $200K Perfect Game [$200,000 Guaranteed]” and required a $300 buy in for one of 740 seats.
rankings will receive some form of payout from the GPP. The strategies for winning are substantially different between GPPs and Cash Games; therefore, it is critical that players choose the forum of play that best suits their skill type.\(^3^0\)

2. Select a Game

Before entering any games, a DFS player needs to decide how much bankroll\(^3^1\) to risk on a given day.\(^3^2\) Proper bankroll management allows for sustained success in DFS and is often a method of distinguishing between an experienced and novice DFS player.\(^3^3\) DraftKings offers a number of entry levels for various game types. For example, a Head-to-Head competition could have an entry fee as low as $0.25 or as high as $10,600 depending on the day.\(^3^4\) Researching the opposition in a given entry is also vital because playing against a novice, as opposed to a highly experienced player, increases the probability of winning.\(^3^5\) The top daily fantasy players are ranked on various websites and can be found via a search tool in game entry pages.\(^3^6\)

3. Set a Lineup

DraftKings follows the salary cap draft format for selecting players in GPPs and Cash Games. In a salary cap league, each player has a price relative to his

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30. BALES, supra note 2, at 70–96; see also Perez, supra note 28.

31. Although there is no hard line definition for the term, “bankroll” is loosely defined as the money a DFS player can afford to lose before he or she is forced to stop playing for a period of time. See stlcardinals84, Getting Your Bankroll Started, ROTOGRINDERS, https://rotogrinders.com/lessons/getting-your-bankroll-started-174289 (last visited Dec. 14, 2015).


33. Id. This Sporting News article explains the trap that new DFS players often fall into. Id. Without proper bankroll management, many new players will find their accounts depleted sooner rather than later. Id. A good rule of thumb is to never risk more than 10% of your bankroll on a given day, especially during the volatile baseball season. Furthermore, only somewhere between 10% and 20% of your daily exposure should be played in GPP’s due to the low expected returns offered in tournament play. Id.; see also JOE PETA, TRADING BASES: HOW A WALL STREET TRADER MADE A FORTUNE BETTING ON BASEBALL 3–100 (2013) (detailing the author’s baseball betting model and the risk management techniques he utilized to ensure that one day or week in the red would not jeopardize his experiment).


35. Notorious, Basic Head to Head Strategy, ROTOGRINDERS, https://rotogrinders.com/lessons/basic-head-to-head-strategy-174280 (last visited Dec. 14, 2015) (detailing that one of the biggest problems new DFS players face is that they get matched up against more experienced players and end up losing their bankroll quickly and then decide to never play again).

36. Id.
fantasy value and each participant is given a maximum amount to spend on assembling his team.\textsuperscript{37} A salary cap method of team construction forces players to conduct some form of economic analysis in strategizing how to optimally value players and allocate their funds.\textsuperscript{38} This type of player valuation is unique to daily fantasy sports because “whereas the value of a player in traditional fantasy comes in relation to his draft spot, the value in daily fantasy is tied to his salary. It creates an interesting dynamic that doesn’t [sic] necessarily have a season-long equivalent.”\textsuperscript{39}

After a player submits a roster, it can be modified until the contest begins.\textsuperscript{40} Any player on the roster can be swapped out prior to the beginning of their respective scheduled game start time.\textsuperscript{41} Once a lineup is locked in for a given contest, the scoring and ultimate performance of a team is based upon the actual performance of the assembled players in key statistical categories.\textsuperscript{42}

\textbf{C. Comparing Traditional and Daily Fantasy Sports [Generally]}

Scholars have opined season-long fantasy sports are a skill-based form of gaming under the Predominance Test.\textsuperscript{43} The skill elements are found primarily in three separate aspects of the game: drafting, playing, and trading players.\textsuperscript{44} Owners must overcome fan biases and assess the relative worth of each player in light of the scoring criteria used for their specific league.\textsuperscript{45} Furthermore, owners must demonstrate strong negotiating skills if they wishes to improve


\textsuperscript{38} Ehrman, supra note 8, at 87.


\textsuperscript{40} \textit{How to Play: The Basics}, supra note 37.

\textsuperscript{41} This is a way for players to adjust their entries based on lineup decisions, weather issues, and other factors that may decrease the value of a player in their lineup in favor of a more suitable replacement in the market pool. \textit{Frequently Asked Questions}, DRAFTKINGS, https://www.draftkings.com/help/faq (last visited Dec. 14, 2015).


\textsuperscript{43} See generally Cabot & Csoka, supra note 12.

\textsuperscript{44} Id. at 1208.

\textsuperscript{45} Id.
their teams through trades with other owners.\textsuperscript{46} This line of thinking was extended from scholarly literature by Judge Cavanaugh in \textit{Humphrey v. Viacom, Inc.}, where he opined that the success of a fantasy sports team is skill-based.\textsuperscript{37}

There are a number of similarities between traditional season-long and daily fantasy sports. The basic tenants of traditional fantasy sports management, such as opportunity cost, consistency, game theory, and risk and reward remain the governing principles of building successful teams in both formats.\textsuperscript{48} For example, the opportunity cost in drafting Giancarlo Stanton in traditional fantasy sports might be other players who could have been selected with the first round pick. In DFS, opportunity cost is found in the salary amount that could have been used to bolster the other nine roster spots. These similarities play a large role in assessing the skill in daily fantasy baseball as discussed in Part V.

The main difference between traditional and daily fantasy sports is the timeframe of events. Traditional fantasy baseball spans the entire MLB regular season, whereas daily fantasy completes its entire game in a single day.\textsuperscript{49} This difference makes daily fantasy a potentially more lucrative endeavor because players can enter multiple contests at lower stakes, generating more opportunities to cash out than the traditional fantasy format offers.\textsuperscript{50} Additional differences are the flexibility and strategy afforded in assembling a team and the fact that DFS offers no medium of trade or negotiation with other owners.\textsuperscript{51} However, outside of the inability to trade, the differences between traditional and daily fantasy offer more opportunities for the more skilled player to gain a competitive advantage as discussed in Part V.

\textbf{D. Federal Gambling Laws and Daily Fantasy Sports}

Scholars have correctly opined that many federal anti-gambling laws have the potential to reach daily fantasy sports if the laws were developed further

\begin{itemize}
\item \textsuperscript{46} Id.
\item \textsuperscript{47} 2007 WL 1797648 at *2 (“[t]he success of a fantasy sports team depends on the participants’ skill in selecting players for his or her team, trading players over the course of the season, adding and dropping players during the course of the season and deciding who among his or her players will start and which players will be placed on the bench.”).
\item \textsuperscript{49} Bales, supra note 39.
\item \textsuperscript{50} Id.
\item \textsuperscript{51} Id.
\end{itemize}
through amendments. However, the government has also provided clarity on the legality of traditional fantasy sports via carve-out provisions in the UIGEA. The UIGEA borrows from state gambling law by declaring the movement of funds associated with state gambling law violations to be prosecutable under federal law.

The carve-out removes fantasy sports from its definition of a “bet or wager” and considers fantasy games legal if winning outcomes reflect the relative knowledge and skill of the participants. However, the UIGEA was passed in 2006 when DFS was just being conceived as an industry. Although DFS sites rely on their carve-outs in marketing their legality, it still requires that the

52. Ehrman, supra note 8, at 89–92. Here the author demonstrates that although federal anti-gambling laws, such as the Wire Act, the Travel Act, the Interstate Transportation of Wagering Paraphernalia Act, the Illegal Gambling Business Act, and the Professional and Amateur Sports Protection Act, could potentially apply to daily fantasy sports, none mention fantasy sports specifically, nor have any been used to successfully prosecute fantasy sports sites. Id. See generally Edelman, supra note 9.

53. Specifically the bill prohibits the accepting of payment in connection with the participation in unlawful Internet gambling. Unlawful internet gambling under this law “means . . . to place, receive, or otherwise knowingly transmit a bet or wager by any means which involves the use, at least in part, of the Internet where such bet or wager is unlawful under any applicable Federal or State law in the State or Tribal lands in which the bet or wager is initiated, received, or otherwise made.” 31 U.S.C. § 5362(10)(A) (2012).

54. Ehrman, supra note 8, at 93 (citing M. Christine Holleman, Note, Fantasy Football: Illegal Gambling or Legal Game of Skill?, 8 N.C. J.L. & TECH. 59, 77 (2006)).

The term “bet or wager” . . . does not include . . . participation in any fantasy or [simulation] sports game or educational game or contest in which (if the game or contest involves a team or teams) no fantasy or simulation sports team is based on the current membership of an actual team that is a member of an amateur or [professional] sports organization (as those terms are defined in section 3701 of title 28) and that meets the following conditions:

(I) All prizes and awards offered to [winning] participants are established and made known to the participants in [advance] of the game or contest and their value is not determined by the number of participants or the amount of any fees paid by those participants.

(II) All winning outcomes reflect the relative knowledge and skill of the [participants] and are determined [predominantly] by accumulated statistical [results] of the performance of individuals (athletes in the case of sports events) in multiple real-world sporting or other events.

(III) No winning outcome is based—

(aa) on the score, point-spread, or any performance or performances of any single real-world team or any [combination] of such teams; or

(bb) solely on any single performance of an individual athlete in any single real-world sporting or other event.


55. For example, on its legal page FanDuel states “[f]antasy sports [are] considered a game of skill
activity in question survive scrutiny under state laws. Therefore, state gambling laws are the most important aspect when analyzing the legality of DFS.

III. COMMON LAW GAMBLING TESTS

In general, common law will find an activity to be an illegal lottery when a person pays consideration (usually cash) for the opportunity to win a prize in a game of chance. This Article concerns pay-to-play DFS where contestants provide an entrance fee and a predetermined number of players win prizes, satisfying the consideration and prize elements. However, if the element of chance is absent, then wagering on one’s own performance in the activity does not constitute criminal gambling. Yet even the most skill-centric activities possess some element of chance. In response, states have developed different tests of varying scrutiny levels to aid in distinguishing between skill and chance gaming.

A. The Predominance (Deciding Factor) Test

The majority of states employ the Predominance Test, also known as the Dominant Factor Test, when assessing whether the chance element has been met in a gambling analysis. In general, the test inquires whether the outcome and received a specific exemption from the 2006 Unlawful Internet Gambling Enforcement Act (UIGEA 2006). FanDuel uses exactly the same rules as any other season-long fantasy sports format, the only difference is that our games last only one day or one week.” The Daily Fantasy Sports Industry, FANDUEL, https://www.fanduel.com/legal (last visited Dec. 14, 2015). DraftKings takes a similar approach, stating that “[t]he legality of daily fantasy sports is the same as that of season-long fantasy sports. Federal Law and 45 of the 50 US States allow skill based gaming. Daily fantasy sports is [sic] a skill game and is not considered gambling.” Why it Is Legal?, DRAFTKINGS, https://www.draftkings.com/help/why-is-it-legal (last visited Dec. 14, 2015).

56. Edelman, supra note 9, at 1.

57. Morrow v. Alaska, 511 P.2d 127, 128 (Alaska 1973) (“[w]here the term ‘lottery’ is not defined by statute, courts generally adopt a definition including three essential elements: consideration, chance, and prize.”); see also Lucky Calendar Co. v. Cohen, 117 A.2d 487, 493–94 (N.J. 1955) (“[w]hile it is to be especially observed that the statute makes no attempt to define a lottery, it has often been said in the decisions that there are three essential elements of a lottery: (1) the distribution of prizes, (2) according to chance, (3) for a consideration.”).

58. Cabot & Csoka, supra note 12, at 1203.

59. For example, chess is held to be one of the purest forms of skill-based gaming. However, there is a chance element in the draw to determine who plays first, which could dictate the opening moves and game strategies of the players. Anthony N. Cabot et al., Alex Rodriguez, a Monkey, and the Game of Scrabble: The Hazard of Using Illogic to Define the Legality of Games of Mixed Skill and Chance, 57 DRAKE L. REV. 383, 390 (2009).

60. Cabot & Csoka, supra note 12, at 1204.
of the activity at bar is determined more by a participant’s skill or by uncontrollable chance. The level of chance only becomes significant in the analysis when it can be shown to be the predominant element in the outcome. Therefore, the Predominance Test will find an activity to be a game of skill if a player’s own ability controls at least 51% of a contest’s outcome.

Under this test, the trier of fact should “envision a continuum with pure skill on one end and pure chance on the other.” The pure chance games, such as bingo or slot machines, are illegal. Games of pure skill, such as chess, are considered legal. However, there is an abundance of uncertainty and inconsistency with legal analysis of games populating the real estate between these two pillars. Indeed, the inconsistency is such that different courts have applied the Predominance Test to the same game and came out with opposite conclusions. However, the ability of the Predominance Test to provide a benchmark for rulings makes it the most reliable method for courts to use in classifying a game as one of skill or chance.

B. The Material Element Test

A minority of states classify a game as one of skill or chance by determining whether chance is a material element affecting the outcome of the game. The

61. Id.
62. Cabot et al., supra note 59, at 391.
63. Rounding up here, technically the element is decided once either skill or chance crosses the 50% threshold. Id. at 391–92.
64. Id. at 390 (quoting INTERNET GAMBLING REPORT: AN EVOLVING CONFLICT BETWEEN TECHNOLOGY, POLICY & LAW 14 (Mark Balestra & Anthony Cabot eds., 10th ed. 2007)).
65. Id.
66. Id.
67. E.g., Cabot & Csoka, supra note 12, at 1203 (citing Commonwealth v. Plissner, 4 N.E.2d 241, 245 (Mass. 1936) (upholding jury instructions that allowed the jury to find a “crane game” to be a game of chance under the Predominance Test)). But see Legality of Electronic Crane Amusement Game, Kan. Op. Att’y Gen. No. 87-140 (1987) (holding that “crane games” are to be considered games of skill under the Predominance Test).
68. Cabot et al., supra note 59, at 412; see also Erica Okerberg, What’s in a Game? A Test Under Which We May Call a "Vgt" a Gambling Game Is Not So Sweet: Why Courts Should Not Apply the Material Element Test to Vgts, 5 UNIV. OF NEVADA LAS VEGAS GAMING L.J. 27, 46 (2014) (urging the state following the material element test to switch to the Predominance Test, because the subjectivity of the material element test results in over- or under- inclusiveness in classifying games as skill or chance).
69. Scholarly research indicates that there are nine material element states. These states include Alabama, Alaska, Hawaii, Missouri, New Jersey, New York, Oklahoma, Oregon, and Washington. Cabot et al., supra note 59, at 392 (citations omitted) (citing case law and justice opinions from the states above indicating that they each in turn adhere to the material elements test).
Material Element Test is a higher level of scrutiny than the Predominance Test because games of skill may be categorized as games of chance even when skill is predominant in determining the outcome.\textsuperscript{70} For example, in United States v. DiCristina, the court outlined New York’s interpretation of the Material Element Test as follows: “A ‘contest of chance’ is in turn defined under New York law as ‘any contest, game, gaming scheme or gaming device in which the outcome depends in a material degree upon an element of chance, notwithstanding that skill of the contestants may also be a factor therein.’”\textsuperscript{71}

The Material Element Test is inferior to the Predominance Test in judging mixed games because it lacks any form of benchmarking or quantifiable nature, and it encourages rulings based on subjectivity. This test evokes two phases of subjective analysis: (1) determining the level of chance in a given game; and (2) determining if that level of chance is high enough to be considered material in the outcome of a game.\textsuperscript{72} Note that there is no predetermined or uniform level at which materiality has been established, nor has any definition of the term been submitted to lend credence to its meaning in this context. Scholars have pointed out that “material” has varying levels of force under traditional legal analysis, and that treating the term as a quantitative concept (i.e., a percentage of the outcome assigned to chance) would only be useful if there was a threshold for benchmarking it against.\textsuperscript{73}

\textsuperscript{70} Id.; see also Okerberg, \textit{supra} note 68, at 29–31: United States v. DiCristina, 726 F.3d 92, 98 (2d Cir. 2013), \textit{cert. denied}, 134 S. Ct. 1281 (2014) (prominent case in the poker industry because the Second Circuit elected not to comment on the district court’s finding that poker is a game of skill; however, the court re-iterated that New York is a Material Element Test state and not one following the Predominance Test used by the district court in making its determination).

\textsuperscript{71} DiCristina, 726 F.3d at 98 (quoting \textit{N.Y. PENAL LAW} § 225.001(1) (McKinney 2015)); see also note 68 and accompanying text.

\textsuperscript{72} Boardwalk Regency Corp. v. Att’y Gen. of N.J., 457 A.2d 847, 850 (N.J. Super. Ct. Law Div. 1982) (stating “this recognition of the skill factor is not determinative on the issue of whether chance plays a material or immaterial role in the outcome of the activity. Indeed, the statute acknowledges that a game may be a ‘contest of chance’ ‘notwithstanding that skill of the contestants . . . may also be a factor therein.’” Thus, the proper focus of the inquiry here is not on the level of skill which may affect the outcome of the contested activity but rather on whether the element of chance is a factor that is material to the final result.”).

\textsuperscript{73} For example, under laws of evidence, an item is considered material if it has some logical connection between the item and a fact of consequence in the outcome of the case. This is far below the standard applied to determining material in contract law where it applies only to a term or provision that is significant. The difference between some logical connection and significance may be unquantifiable but lends itself to an understanding of the range of material to be anywhere from 1% to 49% to greater than 50%. See Cabot et al., \textit{supra} note 59, at 403 (citing \textit{Material, BLACK’S LAW DICTIONARY} (8th ed. 2004); Cabot & Csoka, \textit{supra} note 12, at 1205).
C. The Any Chance Test

A few states reach their classifications of mixed games by determining whether chance plays any role in influencing the outcome of a game.\footnote{74. Ehrman, supra note 8, at 98 (citations omitted) (“States that follow this approach include Arkansas, Iowa, and Tennessee.”).} In these jurisdictions, if chance is present, a game is illegal gambling. Virtually every game has some element of chance within it, and therefore, most skill games cannot survive this level of scrutiny. For example, despite its status as the gold standard of skill gaming, even chess has a chance element in determining the initial draw of white and black pieces, dictating who may make the first move of a game. When two equally matched chess players square off, the conventional wisdom is that white begins the game with a 56% likelihood of winning against black’s 44% likelihood.\footnote{75. JONATHAN ROWSON, CHESS FOR ZEBRAS: THINKING DIFFERENTLY ABOUT BLACK AND WHITE 193 (2003) (“[T]he 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%.”).}

This test is so strict that even answering multiple-choice trivia questions fails to qualify as skill-based.\footnote{76. Cabot et al., supra note 59, at 393. The authors argue that games that are absent random events (like multiple choice trivia) may not survive this level of scrutiny. \textit{Id.} If the game has any elements, which are not known to the player such that they can only guess the answer, then the chance element is present. \textit{Id.} Multiple choice trivia is used as an example because if the field is limited to five possible answers, there is a chance element because a completely unskilled person has a 20% chance of selecting the correct answer. \textit{Id.}} The level of scrutiny here is too high for measuring the legality of mixed games, as it would outlaw most activities in which an entry fee is paid to win a prize.\footnote{77. Golf is another example of a game widely considered to be skill-based, but has a chance element in the shifting of the wind or the favorability of a bounce when the ball lands. PGA Tour, Inc. v. Martin, 532 U.S. 661, 668 (2001); see also Pennsylvania v. Two Elec. Poker Game Machs., 465 A.2d 973, 977 (Pa. 1983) (quoting Electro-Sport, 443 A.2d 295, 298 (Pa. Super. Ct. 1981)) (“It cannot be disputed that football, baseball and golf require substantial skill, training and finesse, yet the result of each game turns in part upon luck or chance.”).} Even traditional fantasy sports would likely fail to gain the game of skill status under this test.\footnote{78. Cabot & Csoka, supra note 12, at 1205 (“Under the Any Chance Test, if the contest contains any element of chance, however small, wagering on such contest is always prohibited as gambling. Similarly, courts employing the Any Chance Test prohibit an activity that ‘appeals’ to the player’s ‘gambling instinct.’”).} It seems inappropriate to analyze a game as one of skill or chance under such an archaic method. This analysis of the DraftKings’ daily fantasy baseball product will be conducted using the Predominance Test because it is the least subjective of the three scrutiny levels. Moreover, the Predominance Test is followed by the majority of jurisdictions and provides an analytical benchmark. Before conducting the
IV. SKILL AND CHANCE

A. Defining Skill and Chance

A skill game occurs when consideration is paid by a person in exchange for the opportunity to win a prize resulting from the outcome of a contest of skill. "'Skill' has been defined as the exercise of sagacity upon known rules and fixed probabilities where sagacity includes ‘keenness of discernment or penetration with soundness of judgment; shrewdness; or the ability to see what is relevant and significant.’" This is the element of a game that is within a player’s control.

In classifying games, chance is viewed as the opposite of something that is planned or designed. It is understood to be the unforeseen, inexplicable, and completely uncontrollable aspect of gaming. Scholars have opined that there are three forms chance may take in gaming: (1) Systemic Chance; (2) Imperfect Information; and (3) The Lucky Shot.

1. Systemic Chance

Systemic Chance is the most common and well-understood form of chance. It exists when a game itself has elements created by a random event, such as throwing dice, shuffling cards, or generating random numbers in a computer. This type of chance is the easiest form to recognize and understand in gaming. Examples include using dice to determine player movement in Monopoly.

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79. Cabot et al., supra note 59, at 394.
81. Cabot et al., supra note 59, at 395.
82. Id. at 394.
83. Id. at 395–400.
84. Id. at 395.
85. Starting with the Banker, each player in turn throws the dice. The player with the highest total starts the play. He places his token on the corner of the game board marked "GO[,]" throws the 2 [sic] dice and moves his MONOPOLY token in the direction of the arrow, the number of spaces indicated by the dice. After he has completed his play, the turn to play passes to the left. The MONOPOLY tokens remain on the game board spaces occupied and proceed from that point on the player's next turn. Object of the Game of MONOPOLY, MONOPOLY GAME RULES AND ‘RAT RACE’ VARIANT, http://monopoly-game.net/Classic_Monopoly_Rules.html (last visited Dec. 14, 2015).
distribution of resources in Settlers of Catan,86 the random order of cards drawn and dealt in poker, and the predetermined odds of winning incorporated into slot machines.87 A game containing Systemic Chance will have a more difficult time in receiving classification as a game of skill than one absent Systemic Chance.88

2. Imperfect Information

Imperfect Information occurs in mixed games where skill is not the sole determinate but is influenced by not having complete information of all factors that can impact game results.89 For example, the game rock-paper-scissors is one of Imperfect Information because you do not know the mindset or upcoming play of your opponent.90 Another prime example of Imperfect Information is found in poker, where players must make decisions regarding whether to continue playing their hand and how much to wager in the round of betting, without knowing the cards of their opponents.91 This is in contrast to games of Perfect Information where the players have complete knowledge regarding the rules of the game and the actions of the other players, which is instantaneously updated as new information arises.92

To put it another way, Perfect Information exists when a game is sequential and a player knows every action of all prior moves conducted by other players.93 If the current state of a game is known to all players and the only uncertainty resides in future moves, then Perfect Information exists for the game state.94 For example, chess is a game of Perfect Information because each player sees the other player’s pieces on the board and knows the prior moves leading to their


87. Cabot et al., supra note 59, at 404 (quoting Harris v. Missouri Gaming Comm’n, 869 S.W.2d 58, 64 (Mo. 1994)) (“Slot machines—random matching of symbols with predetermined configurations for a payoff—involves no skill.”).

88. Id. at 395–96.


90. Id.


92. Cabot et al., supra note 59, at 396.


PAY-TO-PLAY DAILY FANTASY SPORTS

2015]

arrangement. Non-sequential decision-making is often a good indicator that a game is one of Imperfect Information. As discussed below, DFS is a game of Imperfect Information where utilizing game theory can lead to higher win percentages in GPPs and consistent profits over time.

3. The Lucky Shot

The Lucky Shot refers to games where there is no Systemic Chance and there is Perfect Information, but the odds of success remain remote. For example, although the game of golf is widely recognized as a game of skill, “[m]aking a hole-in-one . . . is such a fortuitous event that skill is almost an irrelevant factor.” Hitting a golf ball is an event dominated by the skill of a player, and players have access to all of the information required to make a shot, yet the odds of hitting a hole-in-one are so small that hole-in-one contests have been found to be a game of chance.

B. How to Analyze Skill

Whether a game is one predominantly of skill or chance is a question of fact, not of law. This allows skill or chance determinations to be influenced by the quality of presented evidence, the experience and qualifications of counsel, and the biases of the trier of fact. Proof that a game is skill-based can come from a number of sources, such as expert witnesses and books or

96. Cabot et al., supra note 59, at 397–98.
99. Id.
100. Id. at 1251–52. According to studies, the odds of an amateur golfer hitting a hole-in-one are approximately 12,500 to one and 2,500 to one for professionals. Luke Kerr-Dineen, Want to Know Your Odds for a Hole-in-One? Well, Here They Are, GOLF DIGEST (Nov. 8, 2013), http://www.golfdigest.com/blogs/the-loop/2013/11/want-to-know-your-odds-for-a-hole-in-one-well-here-they-are.html.
101. Cabot et al., supra note 59, at 401.
102. Id.
articles discussing and analyzing skill.103 The result of such subjectivity has been the inconsistent application of the Predominance Test in analyzing mixed-games.104 However, gambling law experts have opined that an analysis of mixed skill and chance games under the Predominance Test should adhere to the following methodologies:

First, the effects-based analysis should compare the experience of average persons, without augmentation through experience or practice, with that of the most highly skilled players to determine the skill levels of the game. Second, the game should not be reviewed in isolation, but in the way it is being offered. For example, a single game of poker may be predominately chance-based, but a tournament may be skilled-based. Third, the results of a mathematical analysis of play does not need to result in the more skilled person winning virtually every time, but instead only a statistically relevant number of times in order to show that overall, in the particular game or format offered, skill is the predominate factor.105

Effect-based analysis looks to analyze the effect of skill rather than the cause. This means that in a skill-based game, the person possessing the requisite skill will prevail a statistically relevant percentage of time over a person without the requisite skill.106 This analysis stems from the “law of large numbers,” which states that as the number of trials increases, the percentage difference between expected and actual values regresses to zero.107 After analyzing repeated trials, data collected from a game of skill should show more skillful players tend to score better than unskilled players.108 In games with many opportunities to display one’s skill, the more likely it is that a person possessing the skill will win.109 Using the guidelines provided by Cabot et al. and an understanding of the importance of mathematical evidence, we can determine whether DraftKings daily fantasy baseball should be considered a game of skill.

103. CABOT & MILLER, supra note 89, at 17.
104. Cabot et al., supra note 59, at 401.
105. Id. at 412.
106. Id. at 407.
or chance under the Predominance Test.

V. DRAFTKINGS, BASEBALL, AND THE PREDOMINANCE TEST

A. Setting up the Analysis

Before examining the evidence for daily fantasy baseball being skill or chance-based, we need a proper understanding of the game we are analyzing. This is the pitfall of many jurisdictions when attempting to classify mixed games. For example, traditionally there is little consistency in determining whether poker should be analyzed based on a given hand, game, or tournament. However, under the guidelines of Cabot et al., we understand that games are properly analyzed when examined in the context in which they are offered. Does this mean that daily fantasy baseball is measured by a single player entry, all of his entries for a particular day, or his daily entries extrapolated over an entire baseball season?

The game being offered by DraftKings is represented in each individual lineup submitted by a player. If a player chooses to enter multiple contests, his team’s performance in one contest has no bearing on the results of his other entries. As such, the proper way to quantify the skill level in this game is to examine the profitability and winning percentages of the expert players against more novice ones in Head-to-Head matchups. This is the way the game is offered under the Cabot et al. analysis, even though one could argue that player skill may be more properly demonstrated through tracking the performance of a professional’s entire daily portfolio. Furthermore, because most of the

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110. This data is currently proprietary and sensitive to DFS sites and thus unattainable to the general public. Without the data, this question can only be examined theoretically via other sources.

111. It is most proper to analyze daily fantasy baseball through the prism of one player’s entire portfolio of entries throughout the entire day. Players have the option of assembling more than one lineup and can enter those lineups into any number of contests, no matter the format. A player’s research may indicate that there are twenty targets who are favorable plays one day and ten the next. However, those favorable plays are also broken down into tiers based on their attractiveness to a player. He may decide to keep a core group of players in each lineup. What the player has done is increased his exposure to certain players and his exposure to the player pool overall. This portfolio of assembled lineups is the best representation of a player’s skill because it is the result of his market research and analysis on a given day. It seems inadequate to analyze one lineup when the totality of a portfolio is what ultimately affects a player’s profitability. This is the equivalent of determining a stock broker’s alpha based on a single stock, which seems off point considering the volatility in the stock and daily fantasy baseball markets.

It is most proper to analyze daily fantasy baseball through the prism of one player’s entire portfolio of entries throughout the entire day. Players have the option of assembling more than one lineup and can enter those lineups into any number of contests. Bales, supra note 37. For example, if a player enters two lineups with the only constant between them being First Baseman Joey Votto, he will have
successful research in daily fantasy baseball is not applicable after the day in question, it would be inappropriate to measure daily fantasy baseball as more than a single day event.\textsuperscript{112}

DraftKings has set up its daily fantasy platform as a game of Imperfect Information. Athletic competition has been defined as games of skill and therefore cannot be considered a random event indicating the presence of Systemic Chance.\textsuperscript{113} When players set their lineups and enter contests, they are unable to view the players in the lineups of other entrants until each player’s game becomes live. There are at least two reasons behind this setup: (1) players can be swapped out of lineups right up until the start of their games, so lineups being viewed may change; and (2) it prevents players from poaching lineups from the more experienced, professional, and profitable players.\textsuperscript{114} This sort of Imperfect Information is akin to not knowing the cards of another player in a game of poker. However, this setup allows players to implement more strategies by incorporating the principles of game theory into their exposure to nineteen players in the player pool overall. However, while every other player is responsible for 5\% of the portfolio’s success, the play of Votto will account for 10\% of it. The player has increased his exposure to the entire player pool by 90\%, diluting their value by 50\% each, but has effectively doubled the portfolios dependency on Joey Votto. \textit{Id.}

\textsuperscript{112} For example, the research conducted on Monday would not carry over to Tuesday because (1) match-ups are different; (2) weather is different (this is baseball specific); (3) player salaries are different; and (4) team lineups are different, to name a few. When one day ends, an entire new research cycle begins for daily fantasy players.

\textsuperscript{113} Cabot et al., supra note 59, at 398 n.86 (quoting \textit{Ex parte Neet}, 57 S.W. 1025, 1027 (Mo. 1900) (“In ruling that baseball is a game of skill, the Supreme Court of Missouri stated: ‘[I]t is affected by chance; but it is primarily and properly a game of science, of physical skill . . . .’”). In a case decided in 1909 involving the legality of playing baseball on Sunday, the Supreme Court of Kansas stated that baseball is a game of skill. \textit{State v. Prather}, 100 P. 57, 59 (Kan. 1909) (quoting the language from \textit{Neet} used above). The court explained that even though baseball involves some chance, it is primarily a game of science, physical skill, endurance, and athletic skill. \textit{Id.} The court stated that baseball “is a game of chance only to the same extent that chance or luck may enter into anything man may do. But, when chance or luck is pitted against skill and science, it is as far an illustration of what will result as any test that could be applied.” \textit{Id.} (quoting \textit{Neet}, 57 S.W. at 1027).

\textsuperscript{114} For example, one of the successful daily fantasy baseball players in the industry is Peter Jennings, who runs all of his daily fantasy entries under the name CSURAM88. He routinely wins big tournaments and is one of the most profitable daily fantasy pros in the business. If I could log in and see his lineups, I would not have to do any research at all, and DraftKings would have effectively negated a good portion of skill from the game. headChopper, \textit{The Man. The Myth. The Legend. CSURAM/Peter Jennings}, \textsc{RotoGrinders}, https://rotogrinders.com/blog-posts/the-man-the-myth-the-legend-csuram-peter-jennings-356547 (last visited Dec. 14, 2015) (discussing Peter Jennings); see also \textit{Bales}, supra note 2, at 35 (stating that at the time of the book’s publication, Peter Jennings had claimed “over $10 million in gross earnings” from playing DFS on DraftKings alone); Cabot et al., \textit{supra} note 59, at 401 (discussing how negating skill in a game effectively renders it to be a game of chance).
2015] PAY-TO-PLAY DAILY FANTASY SPORTS 25
decision-making process.\textsuperscript{115} I chose daily fantasy baseball as a case study because, in my opinion, it offers the toughest challenge to satisfying the Predominance Test. Baseball has the biggest hurdle to climb because it historically is thought of as a game that offers predictability in the long run but is too volatile to forecast on a game-to-game basis.\textsuperscript{116} This may be true in terms for the actual sport of baseball. Indeed, that is what has frustrated Billy Beane, General Manager of the Oakland Athletics, about his job for so long.\textsuperscript{117} Year after year, Beane’s team has outstanding regular season success despite being assembled with a limited budget, even boasting the best record in baseball on occasion.\textsuperscript{118} Yet the Oakland A’s have never won a World Series in Beane’s tenure. This phenomenon is at least partially responsible for Beane’s quote at the beginning of this Article.\textsuperscript{119} However, even though the volatility of the sport makes it less adaptable to certain types of predictive mathematical modeling, it is not entirely unpredictable.\textsuperscript{120} If the volatile game of daily fantasy baseball can achieve skill classification, it follows that experts at daily fantasy football, and especially basketball, have lesser chance burdens because player stats are more amenable to predictive modeling.\textsuperscript{121} In sum, daily fantasy baseball is an appropriate case study because it is more volatile and gives more ammunition to those calling for its classification as a

\textsuperscript{115} For example, a decision whether or not to stack a lineup or insert certain players is often dependent on the game type and predicted usage level of the players in other lineups. Ethan, Game Theory and MLB Stacking, ROTOGRINDERS, https://rotogrinders.com/lessons/game-theory-and-mlb-stacking-282160 (last visited Dec. 14, 2015).

\textsuperscript{116} See generally \textit{Lewis}, supra note 1 and accompanying text.

\textsuperscript{117} \textit{Id.}

\textsuperscript{118} \textit{Id.; see also} Benjamin Morris, \textit{Billion-Dollar Billy Beane}, \textit{FIVE\textsc{THIRTEEN}} (July 24, 2014), http://fivethirtyeight.com/features/billion-dollar-billy-beane/ (“Over the last 15 [sic] seasons, the A’s under Beane have had the fifth-best winning percentage in baseball, with the fourth-lowest total payroll. . . . Beane has been a godsend to the frugal A’s, enabling them to achieve top-tier performance at bottom-tier prices.”).

\textsuperscript{119} \textit{Id.}

\textsuperscript{120} \textit{Bales}, supra note 2, at 27 (“[b]asically, the more variance, the more we can predict numbers to regress toward the mean. Figuring out that ‘mean’—whether it’s league-wide or on the level of a single player—is key. If I’m projecting Adam Wainwright’s strikeouts per nine innings this year, for example, it’s important to know that he had only 7.1 last year after four straight seasons above 8.0, but it would also be useful to know how pitchers at his age typically perform relative to their previous peak production. Maybe pitchers normally don’t see a major decline in strikeouts until age 35 [sic], for example, in which case Wainwright could be in for a positive regression.”).

\textsuperscript{121} See generally Brad Reagan, \textit{A Fantasy Sports Wizard’s Winning Formula}, \textit{Wall Street J.} (June 4, 2014), http://www.wsj.com/articles/a-fantasy-sports-wizards-winning-formula-wsj-money-june-2014-1401893587 (showing how a graduate student at Notre Dame developed a mathematical model for daily fantasy basketball from which he has earned hundreds of thousands in DFS winnings).
game of chance. The game is one of Imperfect Information because players do not have access to the current state of the game. Players cannot see the lineups of other entries and all lineups are susceptible to change until game times lock in, making daily fantasy baseball a non-sequential game. Analysis of the game is properly conducted through the prism of a single entry because other lineup and contest entries by a player have no effect on winning an entry. Finally, the proper mathematical evidence to analyze is the winning percentage of experts against novice opponents in Head-To-Head matchups.

B. Evidence Supporting Skill Classification of Daily Fantasy Baseball

If one were to argue for the classification of daily fantasy baseball on DraftKings to be a game of skill, there is ample evidence at the proponent’s disposal. For example, the game shares many qualities with traditional fantasy sports, a game with more solid legal standing thanks to the UIGEA. One can also argue that there is more skill required to succeed in daily fantasy baseball than traditional fantasy baseball. Furthermore, despite the lack of concrete mathematical evidence, we can generally show that an expert player wins consistently due to superior skill. Lastly, professional sports leagues are the drivers of public policy in this area of law, and they have shown substantial support for the DFS industry.

1. DFS Requires Many of the Same Skills as Traditional Fantasy Sports

Traditional fantasy sports have been argued to be a skill-based activity that is implicitly legal under state law.122 Daily fantasy baseball shares many of the same basic tenets as its skill-based season-long companion.123 These tenets include opportunity cost, consistency, game theory, and risk and reward analysis.124

As highlighted in Part II, the best example of opportunity cost in traditional fantasy sports is found in the draft process where selecting Giancarlo Stanton for your team prohibits the selection of other players of that caliber available at the same time.125 In daily fantasy baseball, the opportunity cost is found in

123. Bales, supra note 48.
124. Id.
125. Id. The example above outlined that adding Giancarlo Stanton with your first round pick prevents you from selecting another player who is considered a first round talent because the next opportunity to add a player would not occur until the second round. The confines of the commonly used “snake draft” system of team assembly in traditional fantasy baseball effectively forces players to
salary figures associated with adding Stanton to the lineup. The opportunity cost of adding Stanton in daily fantasy fluctuates daily due to salary configurations. However, because the entire MLB player pool is always available in assembling a DFS roster, a DFS player has more to consider when adding Stanton than the traditional fantasy player. Thus, while opportunity cost exists in both forms of gaming, the considerations for a DFS player places a higher priority on his daily research and analysis.

Consistency is an oft-utilized aspect in traditional fantasy baseball because the sport’s individual event-based nature fosters predictability on a year-to-year basis. For example, pitchers who strike batters out are usually able to maintain their ability to do so until the later stages of their careers. There is very little volatility in the numbers when projecting season-long figures. For example, since entering the major leagues in 2008, Clayton Kershaw has routinely struck out roughly 8–9.5 batters per nine innings. Last season, Kershaw struck out 10.85 batters per nine innings. A season-long fantasy player could realistically project Kershaw to supply roughly 9–10.5 strikeouts per nine innings this season based on the historical data.

This consistency element works for daily fantasy players as well, but it is more matchup and range dependent. For example, while Kershaw’s K/9 range overall might be 9–10.5, against left-handed hitters he strikes out almost thirteen batters per nine innings. Therefore, his value would increase relative to his salary on DraftKings if he were facing a team comprised mostly of left-handed

create a balanced team. Id. No matter what, the draft process will dictate that a team be made up of a couple high-end players, a lot of mid-tier players, and some sleeper picks. Id. This holds true for all teams in the draft so at the onset of the season there is little difference between the roster quality of each owners assembled team. Id.

126. Id. For example, daily fantasy players have the option of entering into a “high-low” strategy where the team is comprised of high priced superstars and bargain priced sleeper picks for the daily slate. In the alternative, one could forgo the superstar players and instead set a lineup with multiple above-average players. Thus, while adding a mid-tier player only costs the traditional fantasy player the opportunity to roster another mid-tier player, the daily fantasy player might be losing the opportunity to slot a high salaried superstar in the lineup. This conundrum is foreign to the traditional fantasy player because talent is typically assembled by talent in decreasing linear fashion starting with high-end players.

127. Bales, supra note 39.

128. BALES, supra note 2, at 26.

129. Outside of a pitcher’s ground ball to fly ball ratio (GB/FB), strikeouts per nine innings (K/9) have proven to be the most consistent stat for pitchers. Id. at 127.


131. Id.
hitters.\textsuperscript{132} Consistency is important for both traditional and daily fantasy baseball players; it is just more match-up specific for the latter.

Game theory is known as the science of strategy.\textsuperscript{133} It attempts to determine mathematically and logically the actions players should take to secure the best outcomes for themselves in interdependent games.\textsuperscript{134} In both traditional and daily fantasy baseball, game theory is most prevalent during the drafting process.\textsuperscript{135} For example, when drafting players in traditional fantasy baseball, it is helpful to know the positions drafted by the other teams.\textsuperscript{136} Knowing who has been picked allows a player to assess owner needs and more accurately gauge which players are likely to remain available until the next round.\textsuperscript{137} A similar aspect exists in daily fantasy in that a player wants to be able to assemble a team with an understanding of the team his opponents are likely to assemble.\textsuperscript{138} However, as discussed in the next section, the strategy behind game theory in DFS will vary based on the game type a player enters, as it is more beneficial to be contrarian in some formats than others.

A final shared tenet between traditional and daily fantasy baseball is the weighing of risk and reward.\textsuperscript{139} Both formats give players the freedom to take on as much or as little risk as they would like in team assembly. The conundrum of selecting between the high upside and low floor player and the low upside and high floor player is one that constantly plagues players of both formats.\textsuperscript{140}

\begin{itemize}
\item\textsuperscript{132} Bales, supra note 2, at 10. Player salaries for DraftKings lock once they start offering contests for a day’s slate of games. \textit{Daily Fantasy Baseball League Rules}, supra note 37. Therefore, they do not have the opportunity to see the lineup each pitcher will face on a given day, leading to over and underpricing situations.
\item\textsuperscript{133} Avinash Dixit & Barry Nalebuff, \textit{Game Theory}, LIBR. 
\item\textsuperscript{134} Id. In interdependent games, the possible outcomes for each participant depend on the individual choices and strategies of all of the participants in a game. \textit{Id}
\item\textsuperscript{135} Bales, supra note 48.
\item\textsuperscript{136} Id.
\item\textsuperscript{137} Id. For example, say you are picking 11th in the third round of a twelve team traditional fantasy baseball draft and are debating between taking a first baseman or pitcher. Your choice should be based on what the owner picking twelfth did in the first two rounds. If he has already chosen a first baseman, then you should select the pitcher, even if he is rated lower on your board than the hitter. The odds are that because the other owner already has drafted a first baseman that he will not draft one with one of the two picks in between your selections. \textit{Id}
\item\textsuperscript{138} Bales, supra note 48.
\item\textsuperscript{139} Bales, supra note 48.
This issue occurs more often in daily fantasy baseball where players make this decision in contemplation of a larger player pool and contest type for every player selection on their roster.\footnote{141} The only main tenet from traditional fantasy baseball that does not carry over into the daily industry is the negotiation ability of owners in making trades throughout the season.\footnote{142} However, this is more than offset by the skills specifically required to excel in daily fantasy baseball.

2. There Are Specific Skills Required to Excel in Daily Fantasy Baseball

Proponents of classifying daily fantasy sports as a game of skill argue that forming a new team each day is more difficult and thus adds more skill to the daily fantasy sports context than its season-long counterpart.\footnote{143} Many of the similarities highlighted in comparing season-long to daily fantasy are more difficult and skill centric under the daily fantasy baseball platform. Daily fantasy baseball players must be able to make sound decisions and appreciate the significance of a great deal of data including player statistics, weather conditions, batting orders, team matchups, and market valuations, to name a few. Proponents argue that being able to make sense of all these variables in such a short timeframe is truly an act of skill.\footnote{144} Furthermore, because daily players start from scratch each morning, there is a strong argument that there is more research, planning, and thought exhibited than in traditional season-long leagues.\footnote{145}

Daily fantasy players must be able to employ advanced game theory tactics in order to succeed.\footnote{146} Unlike its season-long counterpart, the goal in daily fantasy baseball is not always to maximize projected points but to maximize win probability.\footnote{147} During cash games, a daily player will look to minimize the volatility on his roster because the payout is the same whether securing the highest score or barely making it into the payout pool.\footnote{148} In these situations,
there is no benefit to assembling a “boom or bust” lineup because a player does not need to beat the entire field, only half of it.149

Game theory for daily fantasy baseball really shines in GPP strategy. In GPP, a player is better served by taking a contrarian approach to the lineups he believes the rest of the entries will field.150 The goal is to balance expected player usage with value in order to maximize the benefit of scoring points.151 Not only must a daily player deduce what the optimal plays are for the day, but he must also assess whether other members of the contest have made a similar deduction, all without being able to see their entries.152 Therefore, while game theory plays a limited but important role in season-long fantasy baseball, it is much more prominent on the daily fantasy stage.

Daily fantasy players can also demonstrate skill in the manner they manage their bankroll.153 Managing bankroll is a form of risk assessment in that players need to decide on what contest type, when to enter, and how much they can risk on that particular entry.154 Proponents of daily fantasy point out that bankroll management is one of the main skills that separate the serious daily fantasy player from the recreational user.155 Bankroll tracking is a mathematically driven endeavor for the serious daily fantasy player.156 It allows players to deduce the contest formats they best excel at and eventually allows them to assemble a portfolio model capable of calculating their expected returns given their optimal playing strategy.157 Bankroll management, advanced game theory,

149. Liss, supra note 140.
150. See generally Bales, supra note 2.
151. Id. at 85. For example, say the first baseman in your lineup is the popular pick of the night and ends up being on 50% of the entries for the GPP. Any points generated for your team by his performance is somewhat negated by the fact that half of the league received the points, so the player has only potentially provided gains against half of the field. However, if the first baseman is owned by only 5% of the entries and produces points, the event has allowed your lineup to realize a gain against 95% of the field, which received zero benefit from it.
152. Id. at 86. This concept ties into having an “anti-fragile” approach to assembling teams for daily fantasy baseball. Because the sport is event-based and tough to predict, players want to be able to benefit from the chaos of the majority (i.e., the market) making a wrong prediction. In GPP’s, this approach leads to a better chance of winning the tournament (and thus a larger return on investment) without having to produce as high of a score. Id.
153. Ehrman, supra note 8, at 105 (citing stlcardinals84, supra note 31).
154. Id.
155. Id.
157. Id.; see also Jon Bales, Overlay and +EV, ROTOGRINDERS, https://rotogrinders.com/lessons/overlay-and-ev-209096 (last visited Dec. 14, 2015) (“Your goal, obviously, is to maximize your return as much as possible. To do that, you need to estimate your expectation for a given lineup in a
and volatility-based time-sensitive daily research are critical skills required of a daily fantasy baseball player that a season-long fantasy player need not concern himself with.

3. Professional Sports Leagues Are Backing DFS as a Game of Skill

MLB was one of the first leagues to enter the daily fantasy business when it purchased a small stake in DraftKings in 2013. The two sides extended their partnership prior to the 2015 MLB season to make DraftKings the Official Daily Fantasy Game of MLB. During this two-year gap, MLB spent extensive time vetting DraftKings from a legal and business perspective. Furthermore, during the vetting process, MLB had an outside firm conduct a study in which it found DraftKings to be “overwhelmingly‘ games of skill, not chance.”

As of the writing of this Article, all four major American sports leagues are connected in some way with the DFS industry, and only the NFL lacks an exclusive agreement with a DFS site. It follows that these leagues, which historically have lobbied against sports betting, would not risk exposure to the DFS industry via partnerships or by taking financial interests in sites like DraftKings unless they believed the games could survive scrutiny under state laws by being classified as games of skill and not chance.

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159. Id.


161. Id.


163. Ehrman, supra note 8, at 92.

164. Noah Garden, MLB’s Executive VP of Business, said that “if [the] study had come back and had it been a situation that made us feel uncomfortable, we certainly wouldn’t [sic] have moved...
4. Skilled DFS Players Win Consistently

According to Cabot et al., once a game is known to contain Imperfect Information, the less susceptible it becomes to a direct mathematical analysis. However, anything mathematically backing a position in skill or chance analysis is compelling because it aids the trier of fact in quantifying the level of skill in a game. Despite the scarcity of publically available information regarding the profitability and winning percentages of skill players versus non-skilled players, there is enough to show that more skilled players win more often.

DraftKings presented aggregate data at the 2014 Sloan Sports Analytics Conference showing that only 10% of its players were profitable in 2013. However, 80% of the profits were made by 5% of the profitable players on DraftKings. At the time, this 5% was likely comprised mostly of the fifty to 100 players who CEO Jason Robins estimated were playing DFS for a living. Robins and FanDuel CEO Nigel Eccles both claim that their companies possess aggregate data showing that the more skilled player wins substantially more often when competing against a new DFS player. Specifically, FanDuel research shows that “a superior player—think [Peter Jennings] and his spreadsheets against a newbie picking on feeling and the fact that maybe he likes a certain player—will win 90 percent of the time.” If this is true, then it supports a mathematical inference that daily fantasy sports are approximately 80% determined by skill. This figure is much higher than the 51% threshold required by the Predominance Test for skill classification. Being able to show this mathematical data would likely be the strongest piece of evidence available forward. We feel pretty confident with the information that we have.” Keohane, supra note 160.

165. Cabot et al., supra note 59, at 406.
166. Id. at 404.
168. Id.
169. Id.
170. Davis, supra note 15.
171. Id. DraftKings CEO Jason Robins did not commit to the 90% number but did agree that the data shows that the more skilled player wins substantially more often than the non-skilled player who just learned how to play DFS. Id.
172. .9 = .80 + (1/2 x .2). See Cabot et al., supra note 59, at 408–10. If skill players win 90% of the time, then the non-skilled player wins 10% of the time. This 10% of non-skilled player wins come completely via chance, meaning that he has a 50% probability of winning the 20% of games that are up for grabs because of chance. The other 50% of that 20% goes to the skill player, who benefits from the chance element equally as much as the non-skilled player.
173. Id. at 391–92.
to daily fantasy sites wishing to achieve skill classification.\textsuperscript{174}

Proponents have argued that the significant amount of literature available offering strategies and tips for improving performance in traditional fantasy sports supports the inference that it is a game of skill.\textsuperscript{175} This is also true for daily fantasy sports as there are numerous resources available to help a novice player improve his DFS skill.\textsuperscript{176} The ability to improve performance at DFS supports that the skill level, and not the chance element, predominates the outcome of an event. Lastly, it is important to note that many people have elected to play daily fantasy sports as a career. It is unlikely that so many people would forgo steady, guaranteed income if they could not rely on their daily fantasy skills to provide a living for themselves. Indeed, former “DraftStreet CEO Brian Schwartz argues that . . . daily fantasy . . . is a skill job . . . because ‘the more time you can spend doing your research and coming up with the best strategy the better you can do.’”\textsuperscript{177}

\textbf{C. Evidence Supporting Chance Classification of Daily Fantasy Baseball}

Some caution that DFS has blurred the line between fantasy sports and illegal sports gambling to the point where a chance classification is possible for the game.\textsuperscript{178} Sport law experts cite the lack of control that players have once lineups are set as being akin to placing a bet with a bookmaker.\textsuperscript{179} However,

\begin{itemize}
\item \textsuperscript{174} The Author reached out to DraftKings and professional players regarding aggregate profitability data and winning percentage data but was unable to attain any data as of May 2015.
\item \textsuperscript{175} Cabot & Csoka, supra note 12, at 1209.
\item \textsuperscript{176} For example, most mainstream sports sites, such as ESPN or CBS Sports, offer advice for players on the days slate of games; DraftKings and FanDuel provide users with advice sites linked directly to their contest lobbies; books have been written by successful daily fantasy players; and new services have been developed specifically to cater to the needs of the daily fantasy industry. See BALES, supra note 2. See generally BONNET, supra note 17. A Google search of “daily fantasy advice” on April 30, 2015, unearthed roughly 14 million results and nine separate websites offering daily fantasy sports advice and content on the first search result page alone.
\item \textsuperscript{177} Ehrman, supra note 8, at 108 (quoting Manfred, supra note 7). For example, daily fantasy player Peter Jennings left his job as a stock trader and is now one of the most distinguished and profitable daily fantasy players in the industry. As of April 2015, it has been reported that Jennings has acquired over $10 million in gross earnings from his play on DraftKings alone. Jonathan Bailes, Here’s What It Takes to Make a Living Playing Fantasy Sports, BUS. INSIDER (Nov. 6, 2013), http://www.businessinsider.com/how-pros-play-fantasy-sports-2013-11; see also BALES, supra note 2, at 35 (detailing that Jennings has over $10 million in gross earnings from DraftKings at the time of the book’s publication).
\item \textsuperscript{178} Joshua Brustein, Fantasy Sports and Gambling: Line Is Blurred, N.Y. TIMES (Mar. 11, 2013) http://www.nytimes.com/2013/03/12/sports/web-sites-blur-line-between-fantasy-sports-and-gambling.html?_r=0.
\item \textsuperscript{179} Id. (quoting “Ryan Rodenberg, an assistant professor of sports law at Florida State University, ‘On the spectrum of legality to illegality, they’re [sic] getting pretty close to the line . . . It’s [sic] tough
this lack of control is present in the legally stable season-long fantasy product as well. Furthermore, many of the opinions opposing daily fantasy as a game of skill formed during the industry’s infancy when the public was less educated about the product and its legality.\textsuperscript{180}

Proponent scholars respond to skeptics by pointing out that “[t]here is no debate that a freak injury, an unexpected change of the weather, or an unbelievably unlikely event may occur during a given game, but that does not negate the skill involved in building a successful daily fantasy team.”\textsuperscript{181} As demonstrated earlier, even chess, the gold standard of skill gaming, could not survive if legality was dependent on negating all chance from the game. Fortunately, that is not the test in the majority of jurisdictions, so while there is always a chance element in that players cannot control the performance of the real life members of their virtual team, it is not enough to overcome the skills required for daily fantasy players to succeed.

Furthermore, scholars have opined that the concerns about daily fantasy resembling sports betting are misguided.\textsuperscript{182} Daily fantasy evokes none of the public policy concerns presented by sports gambling and may in fact deter young people from entering the addictive gambling industry by offering them a challenging and rewarding legal alternative.\textsuperscript{183} Lastly, the most prominent difference is that daily fantasy players are competing against each other, whereas sports betters are playing against the sportsbook (a.k.a. “the house”). DraftKings merely provides the exchange to connect players to each other and never acts as their across the table opponent. Some may contend that luck is still heavily involved in the success of daily fantasy players, but long-term data supports the conclusion that skilled players who devote more time to research consistently demonstrate their skill in outperforming other players.\textsuperscript{184} Compare these players and their market analysis to top stockbrokers, who typically cannot find profit from market variance, and the skill of daily fantasy baseball players to make an intellectually honest distinction between the two.”\textsuperscript{185}

\textsuperscript{180} Id. For example, Brustein makes a point to note that many of the leagues declined to comment on the legality of the industry and highlighted that MLB was not comfortable with the industry at all. Id. However, as noted earlier, MLB would go on to purchase a small stake in DraftKings in 2013, and many of the leagues are now confident that the game offered is one of skill as discussed in this Article.

\textsuperscript{181} Ehrman, supra note 8, at 107.

\textsuperscript{182} Id.

\textsuperscript{183} Id. at 108–12. The author outlines criminal conduct such as match fixing and erosion of morality stemming from addictive gambling behavior as examples of issues that are not present in the daily fantasy industry. Id. Furthermore, the traits gained through playing fantasy sports can help people advance their careers by increasing their understanding of math concepts, economics, data analysis, and proficiency with business programs like Microsoft Excel, Microsoft Access, R, and STATA.

\textsuperscript{184} Id. at 113.
becomes more evident.185

D. Assigning Classification to Daily Fantasy Baseball Under the Predominance Test

Jurisdictions following the Predominance Test should classify daily fantasy baseball as a game of skill, not chance. The Predominance Test requires that the outcome of a game is controlled at least 51% by the skill of a player in order to receive classification as a game of skill. The evidence presented shows that daily fantasy baseball players exhibit skill through their daily market and player research, advanced game theory, and bankroll management, along with sharing many tenets with season-long fantasy sports. Furthermore, mathematical evidence based on historical data supports an inference that game outcomes are 80% controlled by skill, much higher than the threshold required by the Predominance Test.

The factors above, combined with the supplemental study conducted by MLB, should be found to more than offset the chance element of variance in player productivity. Furthermore, overstated and outdated public policy concerns leave little room for comparisons to the illegal sports betting industry. This argument for skill classification would be bolstered upon a showing by DraftKings that its data supports (or comes close to supporting) the claim made by FanDuel that the more skilled player wins against the novice player 90% of the time. A proper analysis would require that DraftKings define the skilled and non-skilled player and examine the outcome of Heads-Up event contests between them. While it may not be required, the data would cement daily fantasy baseball as a game of skill under proper application of the Predominance Test.

VI. CONCLUSION

This Article set out to analyze the legality of daily fantasy sports under the Predominance Test analysis followed by the majority of jurisdictions. Under the analytical guidelines provided by Cabot et. al., daily fantasy baseball should be considered a game of skill if its legality is ever challenged at the state level. Obtaining mathematical evidence from industry leaders supporting the claim that the more skilled player wins the majority of the time against the non-skilled

player would be the proverbial “nail in the coffin” in assuring game of skill classification in this case. Furthermore, because daily fantasy baseball contains the highest amount of chance amongst the four major league American sports, it is likely that daily fantasy football, basketball, and hockey would receive the same classification.

The significance of this finding should not be understated as most of the historic gambling laws are of little consequence to daily fantasy sports sites. Attaining legality at the state level provides assurance to the industry that it may continue to grow and prosper without fear of persecution from the legal system. To borrow from a fellow proponent, daily fantasy sports offer a new, legal, and exciting way to participate in America’s growing pastimes.\(^{186}\) It may be the saving grace for MLB, which has an outlet for attracting young fans for the first time in recent memory. While the Billy Beanes of the world remain frustrated by the daily volatility of player performance, DFS gamers like Jonathan Bales and Peter Jennings may continue to embrace and profit from it knowing that their industry will be around for a long time.

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\(^{186}\) Ehrman, supra note 8, at 114.0