

5-2017

Is There a Link Between Fantasy Sports Players and Sports Bettors?

Wayman Wittman
University of Nevada, Las Vegas

Follow this and additional works at: <https://digitalscholarship.unlv.edu/thesesdissertations>

 Part of the [Gaming and Casino Operations Management Commons](#)

Repository Citation

Wittman, Wayman, "Is There a Link Between Fantasy Sports Players and Sports Bettors?" (2017). *UNLV Theses, Dissertations, Professional Papers, and Capstones*. 3192.
<https://digitalscholarship.unlv.edu/thesesdissertations/3192>

This Professional Paper is brought to you for free and open access by Digital Scholarship@UNLV. It has been accepted for inclusion in UNLV Theses, Dissertations, Professional Papers, and Capstones by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact digitalscholarship@unlv.edu.

Is There a Link
Between Fantasy
Sports Players and
Sports Bettors?

by

Wayman Wittman

Bachelor of Arts
University of
Minnesota
2011

A professional paper submitted in partial fulfillment
of the requirements for the

Masters of Science Hotel Administration
William F. Harrah College of Hotel Administration

Graduate College
University of Nevada, Las Vegas
May, 2017
Chair: Dr. Bo Bernhard

Part I

Introduction

This paper will explore the consumer base playing fantasy sports and comparing it with the consumer base that is currently betting on sports. According to the Fantasy Sport Trade Association, (FSTA), there are an estimated 41 million people that actively participate in fantasy sports in the United States of America and Canada (Dwyer, Achen & Lupninek, 2016). The FSTA also estimated that \$1 billion was spend directly on fantasy products with an additional \$4 billion spent on related services such as media (Dwyer, et al., 2016). If there is a link between playing fantasy sports and sports betting, then being able to reach those players and get them in the casino sports book is key to adding more bettors in the mix. No published research has specifically looked at establishing this link between playing fantasy sports and betting on sports. There have been several studies that have tried to link playing fantasy sports and gambling (Bernhard & Eade, 2005; Lee, Kwak, Lim, Pedersen, & Miloch, 2010; Moorman, 2008; Martin & Nelson, 2014).

Purpose of the Study

The purpose of this paper is to develop guidelines for businesses in both fantasy sports and sports betting as they seek to develop new business models that engage the other sector.

Statement of the problem

There are 41 million fantasy players in the US and Canada alone (Dwyer et al., 2016). The total number of sports bettors is not known. Gaming revenue has declined in recent years, while Fantasy sports play has continued to increase. The emergence and rapid growth of daily fantasy sports filling a void that fantasy platforms and casinos didn't see. Understanding how sports

bettors and fantasy players are similar and different will help build the guidelines for business in both fantasy platforms and casinos.

Justifications

This paper will be of keen interest to not only the partners (fantasy platforms and casinos) in the study but, sociologists, gaming researchers, and other researchers. The findings of this paper could also benefit casinos by designing new experiences catering to a new audience. The reason for researching and if a link between playing fantasy sports and sports betting is due to the recent headline both are making. Casino revenue has been declining year over year. Getting more players into the casino is key to survival. The key to attracting new bettors is understanding if there is a link between the fantasy sports player and sports bettor. Using guidelines established in this paper to design new experiences that capitalize on the popularity of both fantasy sports and daily fantasy is key to the long term success of sports betting. The legal standing on whether daily fantasy sports are a form of gambling is of paramount importance. Additionally, the debate on legalizing sports betting nationally follows suit. This is relevant, because if there is a link between playing fantasy sports and betting on sports it could affect legislation for both.

Constraints

Given this paper is based on playing fantasy and/or sports betting the legal status is a major limiting factor. Currently, daily fantasy sports are not allowed in Nevada and New York. Respondent error is a real constraint because of social influences and social stigmas. This could affect whether respondents answer accurately or even elect to participate. Another constraint stems from the size and scope of tracking all sportsbooks that host legal sports betting. It would be cost-prohibitive to do so. A secondary, respondent error could occur when answering the

questions about betting if they are not utilizing legal means to bet. Another constraint is the relative lack of prior research into fantasy and sports betting.

Key Terms

There are several terms that need to be defined for the purpose of this study:

Fantasy Sports – are competitions involving individuals who select “teams” of players from a pool of real-world athletes in various sports (Hill & Woo, 2011).

Player – an individual that creates a team by drafting players to compete against the other players in the league. The player also acts as the General Manager and Coach in setting lineups and making roster decisions on what players to draft, keep, trade, or release (Hill & Woo, 2011).

Draft - the process of selecting players in a single real sport to form a team, just like the actual sports do. Teams can physically convene for their draft or they may conduct an online draft.

“Players are either auctioned to the highest bidder (in an "auction draft"), or team managers take turns selecting players (in a "straight draft")” (Bernhard & Eade, 2005).

Commissioner – manages the league, establishes league rules, resolves disputes over rule interpretations, publishes league standings, ensures that all fees are paid, and organizes the draft, league parties, and/or award ceremonies (Bernhard & Eade, 2005).

Season – The season coincides with the actual sport season, but ends before real sport postseason begins. During the season, teams score points based on how their real league players perform in the statistical categories pre-selected by the league (Bernhard & Eade, 2005).

Sports Betting – Voluntarily making a wager on the outcome of a sporting event with the risk of losing the wager and receiving nothing in return (Moorman, 2008).

Sociological - The study of society (Bernhard, 2015).

Psychological The study of the individual (Bernhard, 2015).

Motivation – That which causes you to act (Bernhard, 2015).

Anthropological - The study of culture (Bernhard, 2015).

Daily Fantasy – A fantasy sports game that lasts only one day or weekend based on the same principles of regular fantasy leagues. Daily Fantasy has no season-long commitment and has a pay to play structure (Johnston & Gordon, 2015).

Pay to Play – an entry fee is paid for a chance to play and compete for a larger sum of money (Johnston & Gordon, 2015).

Mavenism – The degree to which one enjoys sharing sports knowledge with others for the betterment of everyone (Ruihley & Billings, 2013).

Schwabism – Is the degree to which people enjoy having others know that they have a lot of sports knowledge to share. The Mr. Know It All type and lets everyone know it know it all (Ruihley & Billings, 2013).

Surveillance – the process of information gathering, working with statistics, and staying in touch with real-world sports (Lee, Seo, & Green 2013).

Locus of Control – internal Locus of control is the extent to which an individual who believes the end-results are the consequences of his/her own behavior or actions, whereas an external Locus of control is the extent to which an individual who attributes consequences to luck or fate (Lee et al., 2010).

Sensation Seeking – “Risk-taking behaviors, indicating that high-sensation seekers (HSS) underestimate risk and anticipate arousal as more positive than low-sensation seekers (LSS).” (Lee et al., 2010).

Need for Cognition – “A personality variable developed by Cacioppo and Petty (1982) and commonly used measure of the motivation needed to exert a cognitive effort” (Lee et al., 2010).

Part II

Literature Review

This section will provide a review of relevant and past studies pertaining to fantasy sports, sports betting, and gambling. This study will look at the behavioral characteristics of fantasy players and Sports bettors, Consumption trends, gaming aspect, daily fantasy games, and legal issues surrounding both sports betting and fantasy sports.

Behavioral

Fantasy Sports

Fantasy sports has an estimated 41 million in 2015 according to the Fantasy Sport Trade Association, (FSTA), in the United States of America and Canada (Dwyer, Achen & Lupninek, 2016). Fantasy sports continue to grow exponentially from 30 million in 2008 (Dwyer & Drayer, 2010) to 32 million in 2011 (Kwak, Lee, Mahan, 2013) to 41 million in 2015 (Dwyer et al., 2016). Fantasy has altered the notion that the only attraction is the players favorite National Football League (NFL) team (Dwyer et al., 2016).

It has been well established by multiple studies that the following psychological characteristics: Arousal, Enjoyment, Escape, Fan-ship, Pass-time, Self-esteem (Billings & Ruihley, 2013; Lee, Kwak, Lim, Pedersen, & Miloch, 2010; Lee, Seo & Green, 2013; Martin & Nelson, 2014; Ruihley & Billings, 2013) as the motivating characteristics to why people play fantasy sports.

Arousal as it pertains to fantasy means excitement generated through participation (Billings & Ruihley, 2013). “By understanding the reasons that players participate in fantasy sports, sport businesses can, theoretically, cater to the particular needs or ‘reasons’ of a desired market or markets (by Lee et al., 2013, p. 167).” By far arousal and enjoyment were the top two

characteristics used to describe why players play fantasy sports. Fantasy player motivated by arousal see fantasy sports more as a game of chance (Drayer, Dwyer, & Shapiro, 2013; Dwyer & Kim, 2011).

According to the study by Lee et al., (2013), on development of the Fantasy Sport Motivation Inventory (FanSMI), surveillance motivation is a relatively new characteristic used to demonstrate what drives fantasy players to play. Surveillance refers to the gathering of statistics and any information that might help the fantasy player gain an advantage over his opponent in a multitude of ways such as trades and drafting players. Fantasy player motivated by surveillance see fantasy sports more as a game of skill (Drayer, et al., 2013; Dwyer & Kim, 2011).

Technology has added in the explosion of fantasy sports players. The player has multiple options to research, track players, monitor team status, and evaluate changes to roster (Dwyer & Kim, 2011). The increased volume of information available has led to an overstated winning expectancy amongst fantasy players based on time, effort, and money spent engaging in fantasy sports (Dwyer et al., 2016)

Ruihley & Billings (2013) take this one step further to include Mavenism and Schwabism as key motivators in the fantasy player's behavior. Mavenism is taking everything a player has learned through surveillance and freely sharing with others if asked. Schwabism also takes all the information gathered through surveillance but uses it to establish themselves as a top dog or know it all. Fantasy sports provide a social interaction amongst likeminded individuals.

Basking in reflected glory (BIRGing) and cutting off reflected failure (CORFing) are newly explored behavioral traits in fantasy sports (Dwyer et al., 2016) BIRGing is when the individual flaunts the association with others success regardless of any connection or affiliation (Dwyer et al., 2016) For instance the favorite team of the individual is winning those around the

fan will equate the team's success to the fan (Dwyer et al., 2016) CORFing is where the individual tries to distance themselves from organizations and individuals that are unsuccessful (Dwyer et al., 2016) An individual that is CORFing is more likely to avoid media coverage when their favorite team loses versus their fantasy team. When CORFing, the individual is more inclined to avoid communication with others when their fantasy team loses versus their favorite team. Dweyr et al. (2016) goes on to say BIRGing is a way to enhance ones ego whereas, CORFing is a way to preserve ones ego. For instance the individual will use the pronoun "we" when referring to successful events or outcomes and the pronoun "they" when outcomes are unsuccessful. Using pronoun "we" is BIRGing and using "they" is CORFing.

Naturally these motivators will evolve or change over time as well as vary by region and person. Therefore researchers must continue to study the phenomenon that is fantasy sports.

Sports Bettors

Sports bettor characteristics identified in the Lee, et al., (2010) study: Arousal, Enjoyment, Sensation Seeking, Locus of Control, Need For Cognition, Risk Taking, and Perceived Knowledge. The Lee, et al. (2010) study, like all the other studies compared fantasy sports to gambling as a whole. This is problematic in that playing slots differs greatly from blackjack and poker which are different from sports betting. Unlike fantasy sports, slots are purely a game of chance (Carlson, 2013). Fantasy sport are more like poker and blackjack in that both have equal elements of chance and skill involved (Carlson, 2013). Brenhard and Eade (2005) note in their study the presence of all the above characteristics but in a negative light as potential problems for gamblers who lose control. The study also noted that, contrary to popular belief there was not a significant link between playing fantasy sports and gambling, with the caveat that gambling as a whole is too broad and needs to be broken down on a game type

(Brenhard & Eade, 2005). “Aasved (2002) provided a reasonable explanation for the two conflicting empirical directions in the gambling research literature. Aasved argued that one of the problems in gambling research studies is the failure to take into account the heterogeneity of gambling forms. This is important as there are numerous forms of gambling such as sports betting and card games (as cited in Lee, et al., 2010, p.429).” Where Fantasy and gambling intersect are as follows: Arousal and Excitement for fantasy are similar to Sensation Seeking (SS) for gamblers. “Zuckerman (1994) noted a positive relationship between SS and Risk-Taking behaviors, indicating that high-sensation seekers (HSS) underestimate risk and anticipate arousal as more positive than low-sensation seekers (LSS)” (as cited in Lee, et al., 2010, p. 429).

Surveillance for fantasy is similar to Locus of Control, (LOC) for gamblers in that research and preparation leads to success over luck and chance. A person with an internal LOC is more likely to play skill based games like poker, blackjack, and sports betting whereas a person with external LOC is more likely to play slots. “Because of these beliefs or perceptions, individuals with an internal LOC may have more favorable attitudes and intentions toward fantasy game participation than individuals with an external LOC (Lee et al., 2010, p. 430).” Knowledge has a biasing effect in the sports betting world (Kwak et al., 2013). Meaning that bettors believe they can predict future outcomes by using information to develop skills (Kwak et al., 2013). Expert bettors felt information backed up their inflated winning probability, when in reality they were no better at picking winners than random selections were (Kwak et al., 2013). The key takeaway is that expert information may inflate the players perceived chance of winning, not the actual chance of winning (Kwak et al., 2013). This holds true for both fantasy sports players and sports bettors.

Mavenism and Schwabism for fantasy are similar to Need for Cognition (NFC) for gamblers in that recognition of superior knowledge in a specific area or skill is held in the highest regard. “It can be hypothesized that an individual’s NFC level is positively related to fantasy game participation, because participation demands certain levels of cognitive load and information processing in terms of the calculation of odds, the drafting and trading of players, and familiarity with using the fantasy game and sport-related websites (Lee et al., 2010).”

Although these studies touch on the link between playing fantasy and sports betting, they do not break out sports betting from gambling. Thus, the need for this study to fill the gap.

Consumption

All the studies cited above elude to a social circle that takes on the characteristics of a secular society (Billings & Ruihley, 2013; Lee et al., 2010; Lee et al., 2013; Martin & Nelson, 2014; Ruihley & Billings, 2013). They all talk about the how excellent skill is rewarded with praise and lack of preparation gets ridiculed. According to Drayer, Shapiro, Dwyer, Morse, & White, (2010) there are different levels of user with in the society Light, Medium, and Heavy. This mimics normal society in that you have varying level of engagement with an activity. This study also talks about the overwhelming amount of data available to both fantasy players and sports bettors in print, broadcast media, and online. A fantasy player spends on average 9 hours playing and roughly 18 hours following the sport their fantasy team is a part of (Marchica & Derevensky, 2016).

Several studies touch on the anthropological concept of survival of the fittest (Billings & Ruihley, 2013; Lee et al., 2010; Lee et al., 2013; Martin & Nelson, 2014; Ruihley & Billings, 2013). Fantasy players see increased knowledge about the sport they play fantasy sports in as an

edge over the competition (Dwyer & Kim, 2011). Dwyer et al., (2016) adds that winning expectancy is tied directly to the time, money and effort when playing fantasy sports.

The Uses and Gratifications (U & G) theory where fantasy players and sports bettors are actively engaged to fulfill needs and wants through the selection of media information to use in their decisions (Billings & Ruihley, 2013; Drayer et al., 2013; Dwyer & Kim, 2011; Kwak et al., 2013; Lee et al., 2010; Lee et al., 2013; Martin & Nelson, 2014; Ruihley & Billings, 2013). Many thought U & G would have a negative effect on consumption of the sports related media and attendance, but the opposite is true (Drayer et al., 2013). This is a key finding that is of major importance to sports managers and media outlets when making decisions about what to offer (Dwyer et al., 2016). The internet and mobile devices have made access to the content easier than ever for the fantasy player allowing for even more social interaction (Dwyer et al., 2016).

Gambling

Fantasy sports has started to attract the interest of researchers in the areas of addictive behavior and gambling. Whether fantasy sports are gambling is still a source of disagreement in the research community (Kwak et al., 2013). Gambling has been around longer than fantasy sports, thus more research has been published on its positive and negative effects. Attempts to link fantasy sports to gambling can be traced back to fantasy sports origin (Marchica & Derevensky, 2016). Both fantasy sports and gambling started in similar fashions (Marchica & Derevensky, 2016). Meaning that in the beginning gambling was a social interaction where money was risked with the expectation of a return like fantasy sports are talked about currently (Marchica & Derevensky, 2016). The one thing nearly all researchers agree on is there needs to be more empirical research in to fantasy sports before any definitive answer can be reached on if fantasy sports are indeed gambling. The discussion on whether fantasy sports are gambling is

focused on 3 areas: the DSM-IV's diagnostic criteria for pathological gambling, game of skill versus game of chance, and sociological differences in fantasy sports and gambling.

A study by Marchica & Derevensky, (2016) talks about how fantasy sport could become addictive based on the amount of money, time, and effort spend playing fantasy sports when coupled with uncertain outcomes. Bernhard & Eade (2005) and Martin & Nelson (2014) both saw signs from the DSM-IV's diagnostic criteria for pathological gambling: Preoccupation; Tolerance; Loss of Control; Restlessness; Family, work, or school problems; Illegal acts to support gambling; Borrowing money to gamble; Lying (published by American Psychiatric Association).

An individual qualifies for a gambling disorder if they meet four of the nine DSM-IV traits above (Bernhard & Eade, 2005; Marchica & Derevensky, 2016). Both Kwak et al., (2013) and Marchica & Derevensky, (2016) talk about how playing simulated gambling games has lead to gambling behavior and possibly gambling problems. Fantasy sports fall into the simulated games as the player is simulating the roll of a General manger or Owner of a sports team (Bernhard & Eade, 2005; Dwyer Et al., 2016; Kwak et al., 2013; Marchica & Derevensky, 2016). Excessive gambling behaviors: financial risk taking, frequency, and gaming time have been linked to a player's inflated winning expectancy (Kwak et al., 2013). Drayer et al., (2013) pointed out those who tested high for gambling played in fewer leagues and spent less time on those teams. The gambling factor was an outlier when compared to the majority in the study thus, it removed as a factor (Drayer et al., 2013).

The central argument in determining if fantasy sports are gambling is it a game of skill or game of chance. The Unlawful Internet Gambling Enforcement Act (UIGEA) was passed in 2006 allowing fantasy sports a special exemption to continue (Drayer et al., 2013). Online poker

games were included in the UIGEA, thus making them illegal (Drayer et al., 2013). This was confusing to many including researchers in that fantasy sports is very similar to poker and is often compared to it (Mills, Kwak, Lee, & Lee, 2014). Most casino games are straight up games of chance with little argument from anyone, but fantasy sports, poker, and sports betting are not as clear cut (Drayer et al., 2013). Poker and Fantasy both use an element of skill and chance to determine the outcome of the game (Mills et al., 2014).

Fantasy and poker are similar when league entry fees (LEF) are involved. LEF's are money paid into a pot and disbursed to the winners at the end of the game much like poker with outcome in both determined by an element chance (Drayer et al., 2013). A range of strategies can be employed to defeat the other human opponents in poker and fantasy (Mills et al., 2014). The argument for a game of skill is more probable in fantasy sports. The reason skill is more probable in fantasy sports is the research and approach to: adding or dropping players, drafting players, trades, lineup changes, and injuries is far more important to victory than the element of chance (Carlson, 2013; Drayer et al., 2013).

The element of chance in fantasy sports is the winners or points earned are calculated on the real-life statistics of the players on the fantasy player's team (Drayer et al., 2014). The game performance of each real-life player on the fantasy sports player's team is unknown or an element of chance that determines the outcome (Drayer et al., 2013; Kwak et al., 2013; Marchica & Derevensky, 2016). The Marchica & Derevensky, (2016) study states that when elements of chance are present like in fantasy sports this is gambling. Carlson (2013) also point to a heavy influence of the chance in that the fantasy football gods help in determining the outcome of a fantasy sports game. Carlson (2013) goes on to talk about sports the more skilled team has the advantage. The elements of chance in sports betting is rather straight forward in that the

underdog (less skilled team) plays above their skill level, the favorite (the more skilled team) has an off day, a key injury changes the skill imbalance, or a lucky bounce or call alters the outcome of the game.

There is no way to predict the outcome thus sports betting is gambling (Carlson 2013). The debate about skill versus chance is not likely to end anytime soon, as researchers and experts are split. Therefore, more research is needed to determine how much skill versus chance it takes in fantasy sports.

Researchers are starting to explore the differences in the sociological differences in fantasy sports and gambling. It has been well established that gambling has negative social cost (Drayer et al., 2013). Fantasy sports has all the connotations of gambling but not the social costs such as alcohol abuse, drug abuse, and loss of outside social networks (Drayer et al., 2013). Fantasy sports has shown to build social networks, foster camaraderie amongst players, and proudly display group affiliation with out the negative conflict from society (Drayer et al., 2013). Fantasy sports players are more inclined to be up front and honest with friends and family about the time and money spent whereas, sports bettors are more likely to hide their activity from friends and family (Bernhard & Eade, 2005). The notion that fantasy sports are taking on a culture of gambling is not new, studies show that like sports bettors fantasy players feel the games is more interesting when money is on the line (Bernhard & Eade, 2005; Carlson, 2013; Drayer et al., 2013; Dwyer & Kim, 2011; Kwak et al., 2013 Mills et al., 2014). Major professional sports leagues such as the National Football League have strict rules against any form of sports betting but, no restrictions what so ever on fantasy sports (Drayer et al., 2013). The gap in the research is how LEF will affect the social cost of fantasy.

Gender

Researchers have started looking at gender participation studies in fantasy sports. Ruihley & Billings, (2013) study focuses on motivations for women to participate in fantasy sports. They found that women cited the same psychological characteristics as men did for motivation to play fantasy sports. Although men are the majority in both playing fantasy sports and sports betting females have a higher risk for problem gambling (Martin & Nelson, 2014). Females tend to prefer the non-strategic and less social form of gambling whereas males are the opposite (Marchica & Derevensky, 2016). Fantasy sports much like sports betting remains heavily dominated by men.

Legal Issues

Both fantasy sports and sports betting are facing legal issues. The legal issues facing fantasy sports stem from the emergence of daily fantasy sports being labeled gambling. Fantasy sports, not to be confused by daily fantasy sports, have shown to add positive social value (Lee, 2008). Fantasy sports are not plagued with the same negative effects that gambling is (Lee, 2008). Where gambling is riddled with crime, suicide, bankruptcy, child abuse, and domestic violence, fantasy sports have very few if any issues related to crime (Lee, 2008). This attributed to the intimate circles of friends and family that make up most fantasy leagues (Lee, 2008). Courts have interpreted league entry fees paid to a provider and a contract fee or services rendered (Moorman, 2008).

Sports betting currently legal only in Nevada, is being considered in several other states through legislation. This has also spiked the debate to nationally legalize sports betting. One of the major issues surrounding the legalization of sports betting outside of Nevada are all the scandals and corruption (Lee, 2008). There have been numerous point shaving, inside

information, betting on own games, and match fixing across several sports and countries (Lee, 2008). Problem gambling behavior along with point shaving and match fixing have started surfacing in high schools (Lee, 2008). This is a growing concern as internet gambling is wide spread and virtually unregulated where minors can easily access and bet (Lee, 2008). The laws regarding gambling are mainly left the individual states, because the effects of gambling are considered a vice that use state health and welfare resources (Lee, 2008).

Sports betting legislation is being proposed in numerous states but, will not pass until the Professional and Amateur Sports Protection Act (PASPA) is repealed or modified. The PASPA of 1992 is a federal law the restricts the any and all gaming activity by government and or individuals based directly or indirectly on an athlete's performance (Lee, 2008). There was a grandfather clause if a state had legal gaming operations for at least 10 consecutive years prior to PASPA passing they had a period of one year to apply for exemption (Aivaz, 2014). Nevada applied and received the exemption from PASPA, but New Jersey failed too. New jersey passed a law in 20012 allowing single game bets in casinos (Aivaz, 2014). This law was challenged upon the governor signing it on the grounds it violated the PASPA (Aivaz, 2014). The courts ruled it has violated the PASPA (Aivaz, 2014). New Jersey has appealed to the US Supreme Court, the case has yet to accepted or denied (Aivaz, 2014). The PASPA has not been used in reference to fantasy sports, but easily could be (Lee, 2008). Fantasy sports if played for any sort of compensation are a violation of the PASPA federal law (Lee, 2008).

Daily Fantasy Sports

Daily Fantasy Sports (DFS) are relatively new, so there is limited research available at the time of this Paper. There is a question of whether or not daily fantasy is gambling. Nevada

has deemed daily fantasy as gambling and is banned until regulatory approval from Nevada Gaming control is granted (Rose, 2016c). DFS has faced a troubling year in 2016. DFS has ethical issues stemming from equity investment by media networks, sports leagues, and sponsorships from sports teams (Burke, Meek, & Norwood, 2016). The two primary players in DFS are FanDuel and Draft Kings. A wide spread scandal was reported by nearly all news agencies involving the employees of both FanDuel and Draft Kings being allowed to play DFS on the other company's platform, including a manager from Draft Kings winning \$350,000 on Fanduel (Rose 2015b; Rose, 2015c). This posed a lot of ethical questions in that employees had inside information on how to beat the system (Rose, 2016c). Only after a public outcry were the employees banned from playing DFS on any site.

Legislation is changing and research is being introduced with regard to DFS is occurring at a rapid rate. In a report by Rose (2015a) many prosecutors will steer clear of season long fantasy because of its complexities and jargon. Season long fantasy would be extremely hard to argue as a game of chance in a court room before a jury (Rose, 2015a). DFS, on the other hand, is much easier to explain, spans short time periods, and is missing some of the more complex elements of season long fantasy (Rose 2015a). A few of the skill elements in season long fantasy are trades, weather effects, and injuries that are missing in DFS (Rose, 2015a). The State of New York legalized DFS in August of 2016 (Rose, 2016b). By legalizing and declaring DFS not gambling like New York, the question of skill versus chance is all but eliminated as well as avoids federal laws in the process (Rose, 2016b). States may require an amendment to the state constitution for this type of legislation (Rose, 2016b). Though DFS is currently legal in New York and other states, the DFS operators are still liable for any activities prior to enacting the legislation (Rose, 2016b).

DFS has had trouble recently keeping their biggest supporters from backing off to pulling out completely (Rose, 2015b). The logical explanation is that they could be charged criminally for their conduct (Rose, 2015b). Companies like ESPN are considered non-actors under the law (Rose, 2015b). Conspiracy, accomplice, and special statutes are the three ways non-actors can be held criminally liable (Rose, 2015b). First is conspiracy, also known as the prosecutor's friend. While most gambling laws are misdemeanors, conspiracy to commit a misdemeanor is a felony (Rose, 2015b). What is scary for companies like ESPN in this scenario is all it takes is an agreement to do something that breaks the law, and one (not both) of the parties takes a step toward completing it (Rose, 2015b). This could be as simple as promoting a business that is gambling. The parties do not have to have knowledge that what they are attempting to do or are doing is not legal (Rose, 2015b). Second is accomplice, also known as aiding and abetting. This form of liability holds everyone who helps the one committing the act liable as if they did it themselves (Rose, 2015b). Again, this could be as simple as promoting the DFS service. Finally, special statutes of which there are many, but our focus for DFS is the Illegal Gambling Business Act (IGBA) (Rose, 2015b). The IGBA is part of the Organized Crime Control Act (OCCA) (Rose, 2015b). Essentially the IGBA make it a major federal felony to break any anti-gambling laws, with one requirement (Rose, 2015b). That requirement for the IGBA is the business have more than five employees and \$2,000 in daily revenue (Rose, 2015b). Rose (2015b) goes on to illustrate that if found in violation of the IGBA, it can open the door to other OCCA measures, like the Racketeer Influenced and Corrupt Organizations Act, (RICO). The significance here is that under the RICO Act, all assets earned from OCCA and RICO activities can be seized (Rose, 2015b). It is no wonder why companies like ESPN have tried to distance themselves from DFS until the gambling question is answered. State laws prohibit the

acceptance or players outside their borders (Rose, 2016a). The Anti-compacting law stops states from entering into any compact with each other without congressional approval (Rose, 2016a). This will severely limit the growth opportunities for DFS if they are not allowed to pool players from other states (Rose, 2016a).

Sports leagues and media companies have been supportive of DFS and season long fantasy because they know the fans will watch the games to the end, even blowouts (Rose, 2016a). This holds true for games where bad teams are playing each other (Rose, 2015a). Sports teams, both professional and collegiate, see that betting on sports is a major factor in the games appeal (Rose, 2015a). Ultimately, the fate of DFS will rest on whether it is more like gambling or season long fantasy—only time will tell.

Part III

Methodology

Introduction

In an effort to determine if a link between playing fantasy sports and sports betting exists, a multi-method approach is advisable – one that incorporates quantitative and qualitative methods. Having reviewed the literature in this area, it seems a multi-method approach should consist of using a combination of self-administered surveys and a field study in casino sportsbooks. This section is divided into the following subsections of this recommendation for future research: participants, instrumentation, procedures, data analysis, limitations and conclusion.

Participants

In an effort to explore what motivates and drives participation in either fantasy sports or Sports betting or both opinions from both sports bettors and fantasy player are needed. The sample would be a non-probability sample due to practical constraints, therefore, a purposive or judgement sampling technique would be employed (Zikmund, Babin, Carr, & Griffin, 2013). This allows the researcher to select the sample based on the objective of the study. The sampling units will be fantasy players and sports bettors. It would be unwise to use a sampling that encompasses those outside fantasy sports and sports betting.

The target population of this study will be fantasy players using one of the following platforms to play fantasy ESPN, Yahoo sports, CBS Sports, and League owned sites, i.e. NFL.com; and sports bettors from casino sports books. These fantasy platforms were selected because they are the most used and will ensure the study has the highest probability to reach as many players as possible (Fantasy, 2015). The sports books used will be selected based on their

size and location. The selection criteria used was derived from location scouting in Las Vegas. During special events and regular events sports books throughout the city were scouted for possible use in the study. Based on those subjective observations of size and volume of business a sports book was added to yes list or no list. Once complete reviewing the yes list along with subsequent visits the list was finalized. The sportsbooks that met the selection criteria are the Westgate Superbook, Sunset Station, Red Rock, Green Valley Ranch, Caesars Palace, and Wynn. The locations of the six sports books in Las Vegas is important in balancing locals and tourists. These sports books are located throughout the city including the strip. Equally important is the type of bettor each attracts. The sports books are some of the biggest in Las Vegas. This will make blending in to the environment easier for the trackers. These six sports books differ greatly in the type of bettors targeted ensure the widest net is cast to capture the best sample possible.

The sample for the survey part of the study would consist of fantasy players and sports bettors (if allowed by the property to administer the survey). There are approximately 41 million fantasy players in the US according to the Fantasy Sport Trade Association, (FSTA), (Dwyer, Achen & Lupninek, 2016). Utilizing ESPN, CBS sports, Yahoo sports and League owned sites would make the survey available to the majority of fantasy players (Fantasy, 2015). The sports books were selected on the basis of two strip properties: one high end (Wynn) the other as an upscale (Caesars Palace); three off strip or locals' spot: one high end (Red Rock), one mid-high end (Green Valley Ranch), the other mid to lower end (Sunset Station); and Westgate Superbook, as it pulls all types of bettors both local and tourist.

The field survey will consist of tracking patrons within the sportsbook. Given the qualitative nature of the study the exact number of patrons tracked is unknown at this time. The

target will be between 5 and 10 patrons per sportsbook per day. This will require multiple trackers, one or two at each location to ensure data is captured at all 5 locations on same day with same events occurring. The selection process will be as random as possible by picking every Nth person coming into the Sportsbook. The field study will take place several times through baseball and football season, with special attention to certain events like the Super Bowl that may skew data or results.

Instrumentation

Survey

The method for the first part of the study would consist of a survey. An online survey was chosen as the method for this part of the study because it provides a quick, inexpensive and efficient way to reach the large number of fantasy players approximately 41 million according to FSTA, (Dwyer, Achen & Lupinek, 2016). This delivery method allows for instantaneous data collection, geographic flexibility (worldwide), less expensive distribution, and lower processing costs (Zikmund et al., 2013). An online survey has several drawbacks such as differences in the capabilities of respondents, in computers, e-mail software, types of questions, the layout, seen as spam, and unsecure prone to eavesdropping (Zikmund et al., 2013). The survey will contain both open-ended and closed-ended questions on both fantasy and sports betting (Appendix A). The Survey will generate an alpha-numeric code for each accessed. This unique code will be used to track the responses with site gathered from. This code will be tied to a fantasy account or bettor. The code on the survey will be the only access the research team will have to identify respondent, thus ensuring confidentiality. A total of 30 questions will be included in the survey 22 survey and 7 demographic questions. The survey starts with general questions and moves to more detailed questions towards the end. These questions should be pre-tested for content and

clarity with a group of fantasy players and sports bettors and refined as needed. The survey would be online and self-administered.

The non-probability purposive sampling technique used in this study can affect reliability (Zikmund et al., 2013). The reliability of the survey will be improved by obtaining a large sample size with standardized questions (Zikmund et al., 2013). Because the survey will be self-administered the participants will not be able to get clarification on the questions asked. The validity of the survey can be improved greatly by pre-testing the questions and ensuring attributes are clear, concise, mutually exclusive and exhaustive.

Surveys are subject to various types of error. The survey (Appendix A) will be sent to a non-probability purposive sample subjecting it to sampling error (Zikmund et al., 2013). Fantasy players not using one of the selected platforms and bettors not in Nevada, using a mobile betting app, or legal online casino do not have a chance to be selected. The majority of legal sports betting takes place in Nevada, as well as the majority of fantasy is played online via the platforms selected. This will ensure access to a large sample that may have representativeness and generalizability. The only way to test for representativeness and generalizability is to test multiple times and compare results (Zikmund et al., 2013).

This survey will be distributed online and self-administered. It will be subject to non-response and self-selection errors. In an effort to reduce these errors and increase response rate, partnering with the major fantasy platforms listed above will be necessary for distribution. Also participation will be incentivized with a free draft kit for anyone who fills out the survey. Collaborating with the fantasy platforms could cause Auspices bias. To avoid undue influence by the fantasy platform, it is important to explain that the fantasy platform is only helping by facilitating administration of the survey. Social desirability bias will be more likely in a study

like this. Delivering the survey to bettor without creating bias is a major difficulty. Strictly using player databases by may omit many of the bettors we want to survey. Therefore, utilizing a distribution channel outside the sportsbooks will be key to limiting social desirability bias. Many casinos now have mobile betting apps. This will aide in distribution if given permission and pushed out to all mobile users by company owning the app.

Fantasy players and bettors may overstate or understate their true behavior. Emphasizing the confidentiality and importance of honest answers to the survey will attempt to reduce social desirability bias. Interviewer bias is not applicable because it is self-administered. This survey will be subject to administrative errors such as data processing errors. Every effort will be made to reduce these errors to ensure data is collected, captured, analyzed and reported accurately.

Field Study

The second part of this study will consist of a series of field studies. This method allows us to collect information about how and what sports bettors do while in the sports book. The Sports books again were selected on the basis of two strip properties: one high end (Wynn) and one average (Caesars Palace); two off strip or locals' spots: one mid-high end (Green Valley Ranch), the other mid-low end (Boulder Station); and Westgate Superbook as it pulls all types of bettors, local and tourist. The field study will use a track sheet (Appendix B). Trackers will be deployed solo or in teams of two in an effort to blend in.

This study will be that of a natural experiment. With a natural experiment, you “take advantage” of naturally-occurring events (or at least events occurring outside of your control) to make observations. Observing patrons of the sportsbook without interacting with them will provide accurate data collection, using the methods outlined in “Why We Buy” and “Supper Crunchers” as a base line for the field study.

In “Why We Buy”, Underhill, (2009) talks about observing everything a person does from reading signs to path taken to time spent interacting with each thing along the journey. Underhill, (2009) goes on to talk about no detail is too small. Until the end of the study, all of the variables are unknown. The example that Underhill refers to over and over again is the butt brush (Underhill, 2009). Discovered by accident but, turned out to be very important in the overall study. This pertains to the study in that observing and noting everything a person does while in the sportsbook may uncover an unexpected variable that explains behavior.

Tracking will start as they enter the sportsbook from a specific point on each property. The duration of observation will vary based on length of stay and activities they engage in while in the sportsbook. Trackers will be given a tracking guide for each location (Appendix C). The trackers will be trained and will practice to ensure consistency in collection and tracking amongst the five locations.

Reliability of a field study is generally low because of limited sample size, tracker error, and the qualitative nature of the study (Zikmund et al., 2013). To try and increase the reliability of findings, trackers will be trained to follow procedures established in a field guide (Ayres, 2008). The observations will be recorded on a track sheet and transcribed after observation. The transcripts of the track sheets will be analyzed and coded by at minimum of two researchers to increase the reliability of the findings. To improve odds of transferability to other settings a detailed description of the setting will be provided (Rudestam & Newton, 2007).

The field study of patrons in a sportsbook is subject to some of the same errors outlined in the survey section as well as other types of errors. The field study is subject to sampling error as it relies on trackers to select subjects as enter the area. One subject may be just passing through sportsbook while another may enter right after. Selection error dictates the tracker observes the

second subject as they will be engaging in activities within in the sportsbook. This puts extra pressure on trackers to make sure they are selecting patrons as directed in the guide. Partnering with the sportsbooks will increase participation, but could create auspices bias. Social desirability bias can be a study killer. The trackers must remain undetected to limit social desirability bias. Patrons will change behavior if they know they are being watched rendering the observations compromised. A research study on worker productivity during the 1920's and 1930's at Western Electrical Company's Hawthorne plant in Chicago, the Hawthorne Effect was discovered (McCarney, Warner, Iliffe, Van Haselen, Griffin, & Fisher, 2007). The Hawthorne Effect noted that productivity in the workers increased regardless of the change to working conditions when attention was directed on the group (McCarney et al., 2007). The study used lighting levels in a factory, but it has been applied to many fields when studying the effect of being singled out and made to feel important (McCarney et al., 2007). Studies with observational components can be susceptible to the Hawthorne Effect (Fernald, Coombs, DeAlleaume, West, & Parnes, 2012). Every attempt to limit the Hawthorne Effect and social desirability bias should be made during the study. Therefore, making sure the trackers are undetected is vital to collecting unbiased data that is useable.

Procedures

This section will provide a detailed overview what steps to be follow when conducting this study. The flow chart in Figure 1 graphically represents the research process.

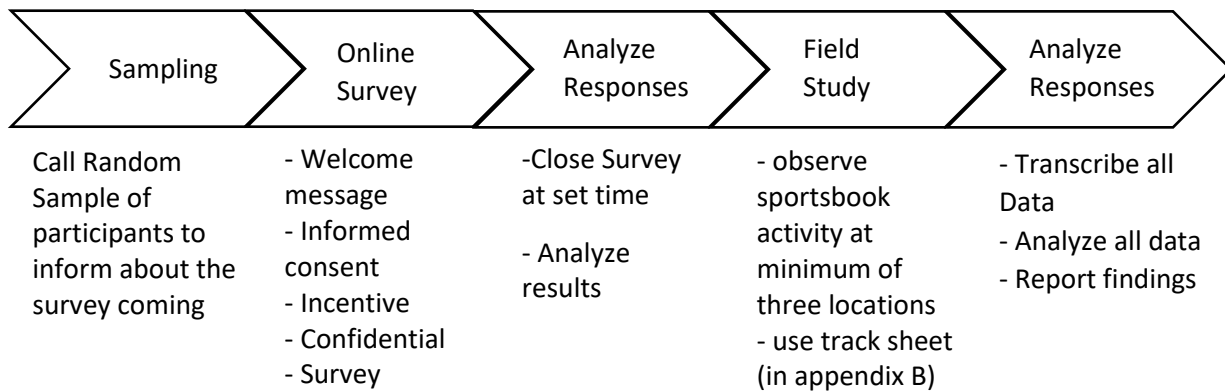


Figure 1: Research process

Research Process

Survey

Partnering with these fantasy platform providers: ESPN, Yahoo sports, CBS Sports, and League owned sites, (i.e. NFL.com); and casino sportsbooks: Wynn, Stations casinos, Westgate, and Caesars Entertainment, will be the first step to completing the study. Without fantasy providers and casinos providing access to their customers, the study will prove more difficult. After securing agreements with the partners, the informed consent forms and surveys will be distributed to the partners' database of fantasy players via email. The casinos will deliver the survey via email to the players' club members that have bet on sports as well as via casino hosts for players without cards. Additionally, sportsbooks with a mobile betting app would push the survey to all active players in database.

All responses from participants will be collected electronically, recorded, and stored for 3 years on a secure server housed at UNLV as required by law. This is a grounded theory study, meaning that data collection and analysis occur simultaneously (Hallberg, 2006). The data stored will not have any identifying markers other than the Alpha-numeric code assigned to the survey upon initial access. This will ensure confidentiality and limit selection bias.

The email and notification to league commissioners will have a short message, the Informed and Consent form, and the survey. The message will ask for their help in our study by filling out the survey in exchange for the incentive offered, i.e. draft kit. The message sent to sports bettors via the casinos will be slightly different from the message sent to fantasy players. Also the incentive piece will be determined at the time of partnering with the casinos to ensure compliance with gaming regulations. This message will be pre-tested along with the survey for

clarity, conciseness, and effectiveness. The message will briefly describe the purpose of the study with a more detailed description in the informed consent document.

The informed consent document will provide more detailed information regarding the study purpose, procedure, benefits, risks, cost, compensation, confidentiality, and voluntary participation. Field study participants will be not compensated, because if the study is accomplished correctly, the participants will be unaware they were even a part of the study.

The informed and consent form will not mention the study is looking for a link between fantasy and sports betting to avoid bias in responses on the survey. The informed consent form will reiterate that the information gathered in this study will be kept as confidential as possible. No reference will be made in collected data, written and/or oral materials that could link a participant to this study. All records should be stored in a locked facility academic facility for a minimum of three years after completion of the study. The records should be destroyed after the 3 years or set term has passed.

Participation in the study is strictly voluntary, and the informed consent form will be required prior to completing the survey. This gives the participant an understanding of what the study is doing and how data will be used, but also gives the researcher permission to use the data generated by the participant. Ideally, the survey will be distributed in March and open through April to capture fantasy baseball leagues starting and again in July 15 and remain open through September 15 to capture Fantasy Football leagues starting. The survey responses will be captured electronically and prepped for analysis. Every survey will have a survey an alpha-numeric code assign when started. The code will correspond to a user account with one of the partnering fantasy platforms or casinos. The researcher will not have visibility to the user

account information to ensure another level of confidentiality. The responses will not be anonymous as they will be linked to a user account to prevent duplicate responses.

Field Study

The Field observation part of the study will take place over several dates throughout the year. Careful consideration will be given in selecting dates where major sporting events, such as the NFL's SuperBowl, are occurring that might skew results. Field observation should occur a minimum of one weekend and one weekday per month for the course of a year. Other times that should be included in observations are: the NCAA Basketball's March Madness, the MLB's opening week of baseball, and the NFL's opening week of football.

A team of observers, called trackers, will be needed to carry out the observations. The trackers will have to be comfortable in a casino sportsbook. The trackers will have to be able to blend in with the crowds within the sportsbook in order to preserve the integrity of the field study and reduce the occurrence of social desirability bias in the patrons being observed. A random selection process, every Nth person to enter, should be used to obtain a sample of 5 to 15 subjects per location per tracker per visit. The trackers will follow the guide given to them in training and fill in the track sheet (Appendix C). A patron will be tracked from entry to exit. These track sheets may be lengthy as some patrons will enter early and stay all day. This is the reason for utilizing multiple trackers per location.

Track sheets will be turned in at the end of every visit to a drop box for secure handling of the collected data. From there the data will be logged and transcribed by at least 2 different researchers in preparation for analysis. With qualitative data, interpretation of the data can vary from person to person. By having multiple researchers independently review, log, and transcribe

the data, a more accurate picture of that data will be obtained, ultimately strengthening the results of the study.

Once all the field observation dates have been completed, researchers need to determine whether or not they have reached concept saturation. Concept saturation will be used to determine when the field observations have yielded a sufficient amount of data. This means that the data collection processes will continue until the new data collected does not add new information (Guest, Bunce & Johnson, 2006). If more observations are needed, more field study days will be added. When the field study days conclude, the data will be analyzed and researchers will determine if concept saturation has been achieved. Once the researchers are satisfied, the field study will end.

Survey

Every survey will be coded with an alpha-numeric code. This code will correspond to a specific user account with either the casino or fantasy platform provider database. This code will contain specific information identifying which sample, fantasy or bettor, and the fantasy platform or casino database it came from. The data collected from the survey will be mostly structured data, which will be aggregated and summarized. All the open-ended questions on the survey will contain unstructured data. Because unstructured data interpretation can vary from person to person, by having multiple researchers independently review, log, and transcribe the data, a more accurate picture of that data will be obtained.

In-depth interviews

The field study track sheets will be logged, transcribed, and recorded exactly as listed on sheet. Interpretation of the track sheet data can vary from person to person. By having multiple researchers independently review, log, and transcribe the data, a more accurate picture of that

data will be obtained. Once completed, the researches will come to a consensus concerning what the data is indicating. They will then utilize an inductive analysis of the data to look for patterns and behaviors that match those of fantasy players identified above.

Limitations

Given the sample is based on playing fantasy and/or sports betting, along with being a non-probability sample, the results are less likely to be generalizable. The sample is limited to those who have access to the internet. Another limitation of this study is a lack of an ability to probe further on questions that surface during analysis of data. Another limitation is the legality of fantasy sports. Currently, daily fantasy sports are not permitted in Nevada. This could affect whether respondents answer accurately or even elect to participate. Another limitation stems from the size and scope of tracking all sportsbooks that host legal sports betting. It would be cost-prohibitive to do so. Respondent error could occur when answering the questions about betting if they are not utilizing legal means to bet.

Results

In exploring a link between fantasy sports and sports betting, multiple studies indicate a possible link, but more research is needed before an answer can be reached (Billings & Ruihley, 2013; Dwyer, Achen & Lupninek, 2016; Dwyer & Drayer, 2010; Lee, Kwak, Lim, Pedersen, & Miloch, 2010; Lee, Seo & Green, 2013; Martin & Nelson, 2014; Ruihley & Billings, 2013). Fantasy sports players and sports bettors do share similar motivations for participating in one or both (Billings & Ruihley, 2013; Dwyer, et al., 2016; Dwyer & Drayer, 2010; Drayer, Dwyer, & Shapiro, 2013; Dwyer & Kim, 2011; Lee, et al., 2010; Lee, et al., 2013; Martin & Nelson, 2014; Ruihley & Billings, 2013). Those traits are arousal and enjoyment for fantasy sports according to Billings & Ruihley, (2013), and sensation seeking for sports betting according to Lee et al.,

(2010). As casinos and fantasy platforms are looking at building new business models and games, it is imperative to incorporate these motivators into all aspects of them. Additionally, when designing new models and games, it is just as imperative to incorporate millennials into the mix. Millennials do not follow any current model known to gaming or fantasy. They do not like or play the current gaming options in casinos (Rose, 2016d). The study outline above is a great start to researching new ways for gaming to evolve.

Legally, season long fantasy is on stable ground, but daily fantasy lawsuits and legislation will influence all fantasy sports (Lee, 2008; Rose, 2015b). Several states are trying to pass legislation to allow sports betting but the Professional and Amateur Sports Protection Act will need to be repealed or replaced before any legislation can move forward (Lee, 2008).

Conclusions

The conclusions reached based on current research is that more is needed. Thus, there is a need for a study like the one outlined above. The research holes identified in this paper are in addictive behaviors for fantasy, millennials gambling, E-sports (video games), cashless gambling options, and skill based gambling.

Martin and Nelson (2014) talk about addictive traits in fantasy sports. Very little research has been done in addictive behaviors for fantasy sports. Extensive research into addictive behaviors in gambling has been done. There is also a conference held every three years, the International Conference on Gambling and Risk Taking, devoted to gambling and gambling issues. Rose (2016d) talks at length on how millennials are different and pushing new development rapidly in an industry that moves extremely slow (Rose, 2016d). Millennials do not carry cash; they actually despise carrying it and even more if they have to use it. They will go

out of their way to avoid using cash (Rose, 2016d). This is a major challenge in that gambling debts are nearly impossible to collect (Rose, 2016d). Therefore, using credit cards to gamble with could cause huge losses in uncollectible debts to casinos (Rose, 2016d). Millennials rarely repeat visits to places, thus constant innovation will be needed to keep them coming back (Rose, 2016).

The future has some bright spots in new models. The fantasy platforms and casinos are testing new head to head style games that put two players in same position against each other. The emergence of E-Sports is the next big thing. There is a lot of research pouring to the world of E-Sports. The first to figure out how to tap the sports market will be a game changer, not to mention leaps and bounds ahead of the competition.

Future research

The natural next step in this research, if supported by the data in this study, would be to conduct a series of focus groups. The groups would be made up of: one with only sports bettors, another one with only fantasy players, and a third with a combination of both. This would probe deeper into the question of whether there is a link between fantasy and sports betting or not. Another research study could look into new or different types of betting in sportsbooks in order to attract more players and/or different age groups, such as millennials. Finally, a study could be conducted looking into potential causes of male dominance of both fantasy and sports betting. Why are women not playing or betting, for instance, is it the product, atmosphere, or sociological factors? Where do millennials fit in both fantasy sports and sports betting? What would entice millennials to spend money in a casino? Studies that answer these kinds of questions would add credibility and depth to a field that is in need of new and sound research literature.

References

- Aivaz, J. M. (2014). So you're telling me there's a chance? fantasy sports versus state and federal gaming prohibitions. *Gaming Law Review and Economics*, 18(9), 875-883.
doi:10.1089/gltre.2014.1894
- Ayres, I. (2008). *Super crunchers*. New York, NY: Bantam.
- Bernhard, B. J. (2015). Intro and science fall 2015 lecture power point slides. *UNLV William F. Harrah College of Hotel Administration and UNLV Department of Sociology*.
- Bernhard, B. J., & Eade, V. H. (2005). Gambling in a fantasy world: An exploratory study of rotisserie baseball games. *UNLV Gaming Research & Review Journal*, 9(1), 29-42.
- Billings, A. C., & Ruihley, B. J. (2013). Why we watch, why we play: The relationship between fantasy sport and fanship motivations. *Mass Communication & Society*, 16(1), 5
- Burke, D. D., Meek, B. P., & Norwood, J. M. (2016). Exploring the legality of the lucrative world of fantasy sports. *Journal of Legal, Ethical and Regulatory Issues*, 19(1), 38.
- Carlson, C. (2013). The reality of fantasy sports: A metaphysical and ethical analysis. *Journal of the Philosophy of Sport*, 40(2), 187.
- Drayer, J., Dwyer, B., & Shapiro, S. L. (2013). Examining the impact of league entry fees on online fantasy sport participation and league consumption. *European Sport Management Quarterly*, 13(3), 339-357.
- Drayer, J., Shapiro, S. L., Dwyer, B., Morse, A. L., & White, J. (2010). The effects of fantasy football participation on NFL consumption: A qualitative analysis. *Sport Management Review*, 13(2), 129-141.

- Dwyer, B., Achen, R. M., & Lupinek, J. M. (2016). Fantasy vs. reality: Exploring the BIRGing and CORFing behavior of fantasy football participants. *Sport Marketing Quarterly*, 25(3), 152.
- Dwyer, B., & Drayer, J. (2010). Fantasy sport consumer segmentation: An investigation into the differing consumption modes of fantasy football participants. *Sport Marketing Quarterly*, 19(4), 207-216.
- Dwyer, B., & Kim, Y. (2011). For love or money developing and validating a motivational scale for fantasy football participation. *Journal of Sport Management*, 25(1), 70-83.
- Fantasy sports 2014-2015. (2015, Dec 1,). *Congressional Digest*
- Fernald, D. H., Coombs, L., DeAlleaume, L., West, D., & Parnes, B. (2012). An assessment of the Hawthorne effect in practice-based research. *Journal of the American Board of Family Medicine: JABFM*, 25(1), 83.
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59-82.
- Hallberg, L. R. (2006). The “core category” of grounded theory: Making constant comparisons. *International Journal of Qualitative Studies on Health and Well-being*, 1(3), 141-148.
- Hill, S. G., & Woo, C. W. (2011). New media, new audiences, and new questions: Exploring a communication research agenda for fantasy sports. *Journal of Sports Media*, 6(1), 85-114
- Kwak, D. H., Lee, J. S., & Mahan, J. E. (2013). Ad-evoked illusory judgments in fantasy sports participation: Effects of customization level and expert information. *Journal of Sport Management*, 27(5), 393-406.

- Lee, E. (2008). Play ball: Substituting current federal non-regulation of fantasy sports leagues with Limited supervision of hyper-competitive leagues. *Loyola of Los Angeles Entertainment Law Review*, 29(1), 53-90.
- Lee, W., Kwak, D. H., Lim, C., Pedersen, P. M., & Miloch, K. S. (2011). Effects of personality and gender on fantasy sports game participation: The moderating role of perceived knowledge. *Journal of Gambling Studies*, 27(3), 427-441.
- Lee S., Seo J.W., & Green B.C., (2013). Understanding why people play fantasy sport: development of the Fantasy Sport Motivation Inventory (FanSMI). *European Sport Management Quarterly*, 13(2), 166-199,
- Marchica, L., & Derevensky, J. (2016). Fantasy sports: A growing concern among college student-athletes. *International Journal of Mental Health and Addiction*, 14(5), 635-645.
- Martin, R. J., & Nelson, S. (2014). Fantasy sports, real money: Exploration of the relationship between fantasy sports participation and gambling-related problems. *Addictive Behaviors*, 39(10), 1377-1382.
- McCarney, R., Warner, J., Iliffe, S., van Haselen, R., Griffin, M., & Fisher, P. (2007). The hawthorne effect: A randomised, controlled trial. *BMC Medical Research Methodology*, 7(1), 30. doi:10.1186/1471-2288-7-30
- Mills, B. M., Kwak, D. H., Lee, J. S., & Lee, W. (2014). Competitive environments in fantasy sports gaming: Effects of entry fees and rewards on opposition quality and league sorting. *International Gambling Studies*, 14(1), 161-180.

- Moorman, A. M. (2008). Fantasy sports leagues challenged as illegal gambling. *Sport Marketing Quarterly*, 17(4), 232.
- Rose, I. N. (2015a). Are daily fantasy sports legal? *Gaming Law Review and Economics*, 19(5), 346-349.
- Rose, I. N. (2015b). End game for daily fantasy sports? *Gaming Law Review and Economics*, 19(9), 634-637.
- Rose, I. N. (2015c). What should daily fantasy sports do now? *Gaming Law Review and Economics*, 19(10), 683-686.
- Rose, I. N. (2016a). Daily fantasy sports & internet poker winning battles, but losing war. *Gaming Law Review and Economics*, 20(4), 38-312.
- Rose, I. N. (2016b). New York legalizes fantasy sports. *Gaming Law Review and Economics*, 20(7), 564-566.
- Rose, I. N. (2016c). Snapshot of daily fantasy sports fighting for its life. *Gaming Law Review and Economics*, 20(5), 375-377.
- Rose, I. N. (2016d). From daily fantasy sports to candy crush for cash: How millennials are changing legal gaming. *Gaming Law Review and Economics*, 20(2), 136-142.
- Rudestam, K. E., & Newton, R. R. (3rd Ed.). (2007). *Surviving your dissertation :A comprehensive guide to content and process*. Los Angeles: SAGE Publications.
- Ruihley, B. J., & Billings, A. C. (2013). Infiltrating the boys' club: Motivations for women's fantasy sport participation. *International Review for the Sociology of Sport*, 48(4), 435-452.

Underhill, P. (2009). *Why we buy: The science of shopping*. New York, NY: Simon and Schuster.

Zikmund, W.G., Babin, B.J, Carr, J.C, Girffin, M. (2013). *Business research methods (9th Ed.)*. New York, NY: Dryden Press.

Appendix A

1. Have you ever played fantasy sports?
 - a. Yes
 - b. No

2. What fantasy sports have you played?
 - a. Football
 - b. Baseball
 - c. Hockey
 - d. Basketball
 - e. Nascar
 - f. Soccer
 - g. Boxing
 - h. MMA

3. What fantasy sports do you play currently?
 - a. Football
 - b. Baseball
 - c. Hockey
 - d. Basketball
 - e. Nascar
 - f. Soccer
 - g. Boxing
 - h. MMA

4. How often do you play fantasy sports?
 - a. Every year
 - b. Almost every year
 - c. Sometimes but not consistent
 - d. Rarely
 - e. Never

5. How many hours per week you spend gathering information related to your fantasy team?
 - a. 0 – 2 hour
 - b. 2 – 4 hours
 - c. 4 – 6 hours
 - d. 6 – 8 hours
 - e. 8 – 10 hours
 - f. 10 – 12 hours
 - g. 12 – 14 hours
 - h. 14 – 16 hours
 - i. 16 – 18 hours
 - j. 18 – 20 hours

- k. Over 20 hours
6. Have you ever bet on sports?
- a. Yes
 - b. No
7. What sports have you bet thus far in life?
- a. Football
 - b. Baseball
 - c. Hockey
 - d. Basketball
 - e. Nascar
 - f. Soccer
 - g. Boxing
 - h. MMA
8. What sports do you currently bet on?
- a. Football
 - b. Baseball
 - c. Hockey
 - d. Basketball
 - e. Nascar
 - f. Soccer
 - g. Boxing
 - h. MMA
9. How often do you bet on Sports?
- a. Daily
 - b. Weekly
 - c. Monthly
 - d. Sometimes but not consistent
 - e. Rarely
 - f. Never
10. Do you play Fantasy sports for the sole purpose of winning money?
- a. Yes
 - b. No
11. Why or Why not – Follow up to # 10
12. What Motivates you to play Fantasy sports
- a. Open Ended

13. How did you get started playing Fantasy Sports? (select all that apply)
- a. Friends
 - b. Family
 - c. Work
 - d. Bar
 - e. Public
 - f. Daily fantasy games (draft kings)
14. How did you get started betting on Sports?
- a. Friends
 - b. Family
 - c. Work
 - d. Location (like living in vegas)
 - e. Or _____
15. Did you play Fantasy sports or Bet on Sports first?
- a. Fantasy
 - b. Bet On Sports
16. Do the current types of sports betting appeal to you? (i.e. types of wagers like Point spread or money line)
- a. Yes
 - b. Sometimes
 - c. Unsure
 - d. No
 - e. N/A
17. To what degree do you agree or disagree with the current types of sports betting appeal to you?
- a. Strongly Agree
 - b. Agree
 - c. Uncertain
 - d. Disagree
 - e. Strongly disagree
18. What motivates you to bet on sports?
- a. Open ended
19. Have you played the Daily Fantasy games like draft kings?
- a. Yes

- b. No
20. How important were the following factors in your decision to play DFS?
- a. Weekly option
 - b. Commitment
 - c. Didn't like it
 - d. Fairness
 - e. Expense
 - f. Want to but haven't yet
 - g. Complicated
21. Would you rather bet on sports or play daily fantasy games?
- a. Bet on sports
 - b. Daily fantasy
22. Why?
- a. Open ended
23. What would make sports betting more attractive?
- a. Open ended

Demographics

24. Gender
- a. Male
 - b. Female
25. What Is Your Ethnicity?
- a. African American
 - b. Asian
 - c. Hispanic
 - d. Pacific Islander
 - e. White
 - f. Prefer not to answer
26. What is your age?
- a. 18 to 21 years
 - b. 21 to 30 years
 - c. 31 to 40 years
 - d. 41 to 50 years
 - e. 51 to 60 years
 - f. Age 65 or older

27. What is your education level?
- a. Completed some high school
 - b. High school graduate
 - c. Completed some college
 - d. Associate degree
 - e. Bachelor's degree
 - f. Completed some postgraduate
 - g. Master's degree
 - h. Ph.D., law or medical degree
 - i. Other advanced degree beyond a Master's degree
28. What is your marital status?
- a. Single (never married)
 - b. Married
 - c. Separated
 - d. Widowed
 - e. Divorced
29. What was your total household income before taxes during the past 12 months?
- a. Less than \$25,000
 - b. \$25,000 to \$34,999
 - c. \$35,000 to \$49,999
 - d. \$50,000 to \$74,999
 - e. \$75,000 to \$99,999
 - f. \$100,000 to \$149,999
 - g. \$150,000 to \$199,999
 - h. \$200,000 or more
30. Who is your TV service provider?
- a. Open ended

Appendix B

Field study track sheet

Location						Wayman Wittman	
Day							
Time						Track Sheet	
How much time do they spend in the sports book?							
Do they Bring in materials?							
How do they use those materials?							
Do they use their phone?							
Do they drink?							
Do they eat?							
Do they walk into mian casino floor?							
Do they play other games Slots, tables, keno?							
How many trips to the betting window?							
How many bets?							
Sports or Race?							
Race							
Sex							
appereance							
Other Observations							

Appendix C

Field Study Guide

- Arrive at assigned Casino
- Check in with point person via phone or text or email prior to entry
- Enter the sportsbook be sure not to draw attention to your self
- Please have your thing organized in an easy to use and access manner prior to arrival
- Once situated start with the 4 person to enter after you are ready to track.
 - Pay special attention all items on track sheet.
- Track until patron leaves sports book
- Goal is 5 to 15 tracks in a shift.
- If you use short hand for notes be sure to leave a translations guide for research team
- Place all completed track sheets in envelope provided and deposit in designated secure drop box.