

# An Examination of Sport Fans' Perceptions of the Impact of the Legalization of Sport Wagering on Their Fan Experience

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## **Abstract**

Over the years, professional and collegiate organizations have fought attempts to increase the legalization of sport wagering. One argument presented by those in opposition is that increased legalization would negatively alter the manner in which fans and spectators follow, consume, and react to sporting events (Tuohy, 2013). The current research was designed to examine possible changes in fandom by investigating fans' perceptions of the impact of increasing legalized sport wagering on their fan experience, interest in sport, and sport consumption. Participants ( $N = 580$ ) completed a questionnaire packet assessing demographics, economic fan motivation, fandom, and perceptions of the impact of increased access to legalized sport gambling. Data and analyses indicated that expected impacts were small and generally positive (e.g., a modest increase in interest in sport and consumption) and that these effects were greatest among groups historically active in sport gambling (e.g., persons higher in economic motivation and sport fandom).

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Summarizing the powerful relationship between sport fandom and gambling, Wann, Melnick, Russell, and Pease (2001) concluded that “Sport consumption and gambling go hand in hand” (p. 37). Indeed, figures for sport wagering can be staggering. For instance, it has been estimated that people wager billions of dollars on sport annually, either legally or (mostly) illegally (Claussen & Miller, 2001; Kelly, 2011; McKelvey, 2004). The American Gaming Association (Sports wagering, 2013) reported that, in 2012, \$3.45 billion was wagered legally in Nevada alone.

At issue in the current investigation are the potential impacts of the increased legalization and accessibility of sport gambling (the current work focuses exclusively on sport wagering within the U.S.). In particular, the current work investigated the relationship between various personality and trait variables and perceptions of the potential impacts of increased legalization of sport wagering. The personal traits of interest included sport fandom (the extent to which an individual identifies with the role of sport fan; Wann, 2002) and economic motivation (the extent to which individuals are motivated to follow sport for the opportunity to place sport wagers, Wann, 1995). Increased legalization of sport gambling was viewed as potential changes in gambling laws that would render legalized sport wagering as more readily available (e.g., at casinos and race tracks). That is, opportunities to legally wager on sport would be available beyond the current few locations (such as Las Vegas).

As a result of the 1992 *Professional and Amateur Sports Protection Act*, only a handful of states are permitted to offer legalized gambling (Nevada, Delaware, Oregon, Montana). However, other states have become interested in allowing legalized sport wagering, generally in hope of gaining tax revenue. At the front of this movement has been the state of New Jersey, where law makers attempted to establish legalized sport gambling in 2012. In response, sport leagues/organizations sued the state of New Jersey in an effort to stop state authorities from legalizing sport gambling. These organizations (i.e., National Collegiate Athletic Association, Major League Baseball, National Football League, National Basketball Association, and National Hockey League) traditionally argued that the increased legalization of sport wagering would significantly damage their product. Although they argued multiple points in opposition of legalized sport wagering (e.g., increased game “fixing” on the part of players and others, increased criminal activity, diminished league integrity), one dispute speaks directly to the psychology of the sport fan and spectator (Tuohy, 2013). Specifically, league officials argued that increased legalization of sport wagering would fundamentally change the manner in which fans and spectators follow, consume, and react to sporting events.

Recently, however, certain professional sports leagues have warmed to the idea of sports wagering. In November 2014, the *New York Times* published an op-ed by National Basketball Association (NBA) Commissioner Adam Silver in which he advocated for legalized betting on professional sports events. Silver stated that sports betting has become an accepted part of the sport experience and is now a global phenomenon. He also argued for the regulation of such activities to protect the consumer and their interests (Silver, 2014). While sports leagues have traditionally had a tenuous relationship with sports gambling, Silver’s statements represent one of the first major attempts by a major American sports executive/commissioner to embrace the peripheral activity. Interestingly, Silver’s op-ed was published one day after a partnership was announced between FanDuel.com and the NBA to offer the first official sanctioned one-day fantasy game (FanDuel, 2014b).

## **Empirical Examinations of Sport Gambling**

A number of researchers have examined the issue of sport gambling, as well as investigating persons who report an interest in the activity. This research has targeted potential reasons for sport gambling, the motivation to gamble on sport (i.e., economic motivation), and the similarity between sport gambling and participation in fantasy sports.

**Reasons for sport gambling.** Several authors have suggested reasons that may underlie a fan's decision to place a sport wager (and the impact these factors play in sport consumption). For instance, some authors have suggested that fans wager on sport as a method of "being in the game" (Nelson et al., 2007, p. 273), thus hoping to add excitement by placing a wager (Petry, 2003). Indeed, a small proportion of individuals report that their interest in an athletic event is magnified when they have wagered on the game (Oster & Knapp, 1998). Given that placing a wager can increase a fan's interest in that event, and fans are more likely to consume events they find interesting and entertaining (Wann et al., 2001), it may be that increasing the availability of legalized gambling has the potential to increase sport consumption. This was the conclusion of Funk, Nakazawa, Mahony, and Thrasher (2006), who investigated the impact of a national sports lottery on attendance. They examined Japan Professional Soccer League (J. League) attendance prior to and after a national sports lottery was introduced. Attendance at J. League matches was quite high initially but attendance declined as the novelty of the league began to wane. However, the national sports lottery brought renewed interest to the league. Attendance rose dramatically in the seasons following the introduction of the lottery, increasing by nearly 6,000 people per contest. Although other factors were also likely to have influenced the resurgence in attendance (e.g., Japan hosted the FIFA World Cup in 2002), the authors concluded that the sports lottery could have "served as the socializing agent to create an initial and continued interest in the sport" (p. 280) thereby leading to increased attendance.

Other researchers investigating sport gambling have concluded that sport wagering is simply a complementary activity. That is, gambling on sporting events appears to be an additional activity engaged in by fans, rather than one that excludes other actions. This was the conclusion of Paul and Weinbach (2010) who wrote "Overall, betting on the NBA and NHL appear to be much more about consumption than investment. Sports wagering appears to be a complement to watching sporting events" (p. 137). Similarly, Mahan, Drayer, and Sparvero (2012) concluded that the "correspondence between fans' spending on betting and more traditional purchases perhaps indicates that some fans seek multiple outlets of consumption as opposed to selecting one in favor of the other" (p. 167).

**Economic motivation.** Rather than focus on reasons for engaging in sport gambling, other authors have assessed the extent to which fans are interested in sport wagering. One's interest in wagering on sporting events is often referred to as economic motivation (Wann, 1995) and is defined as one's desire to participate in sport as a fan due to the potential financial gains that could be accrued via sport wagering. Individuals scoring high in economic motivation gamble more frequently and wager greater amounts than fans less motivated by this factor (Wann & Ensor, 1999). Although there is some variation across fans of different sports, levels of economic motivation are generally still low for sports associated with high levels of gambling, such as professional and college football sports (Wann, Grieve, Zapalac, & Pease, 2008). In terms of gender differences in economic motivation, although a few reports have failed to find differential levels of economic motivation between men and women, the majority have found that men report higher levels of this motive than women (Bilyeu & Wann, 2002; Wann, 1995; Wann, Bilyeu, Breenan, Osborn, & Gambouras, 1999; Wann, Schrader, & Wilson, 1999).

Levels of economic motivation may impact level of interest in and consumption of sport, should there be an increase in the accessibility of legalized sport gambling. For instance, persons who are drawn to sport fandom pursuits primarily for the opportunity to place wagers may have their economic motivation increase if legal sport gambling were made more readily available. Further, a small (perhaps very small) proportion of individuals who are not interested in sport may gain interest if legal sport gambling were made more accessible. There is tentative support for this. Specifically, on campuses with a high emphasis on sport, persons with low levels of athletic interest (i.e., persons not classified as an athlete or fan) can become interested in sport via gambling, resulting in higher levels of interest in sport fandom (Nelson et al., 2007).

**Participation in fantasy sports.** A final area of research with potential relevance concerns participation in fantasy sports. Originating with Rotisserie baseball approximately 50 years ago, fantasy sports involve drafting actual players to form a “team.” The success of the team is a function of the actual players’ performances (e.g., if a NFL running back scores a touchdown, the fantasy team owning this player also scores a touchdown; see Lomax, 2006, for an overview of fantasy sports). Fantasy sports have become extremely popular (particularly fantasy football), especially with the move to an automated, electronic platform. Fantasy sports’ popularity exploded when the Internet automated the process of calculating athletic statistics and provided fantasy sports players the opportunity to engage with others around the world (Randle & Nyland, 2008). In fact, estimates suggest approximately 30 million people participate in fantasy sports yearly, generating a potential economic impact of over \$1 billion annually (Dwyer & Kim, 2011; Hollerman, 2006). This figure is likely much larger now as fantasy sports properties continue to gain in popularity and economic power (Brustein, 2013; DraftKings, 2014; FanDuel, 2014a; FanDuel, 2014b)

Although fantasy sports were exempted in the 2006 *Unlawful Internet Gambling Enforcement Act*, it is clear that fantasy sports and sport gambling have a number of similarities (Brustein, 2013; Bernhard & Eade, 2005; Drayer, Dwyer, & Shapiro, 2013; Lee, Kwak, Lim, Pedersen, & Miloch, 2011). For instance, although many fantasy leagues are free to enter, a large number have entry fees and there are often prizes (including monetary) for winning. As a result, Internet-based fantasy sites such as DraftKings.com (DraftKings, 2014) and FanDuel.com have become viable economic properties that have been able to secure large financial backing and strategic agreements. Both organizations have been able to secure partnerships with major sport organizations such as the NBA (FanDuel, 2014b) and National Football League (NFL) teams such as the Denver Broncos and New England Patriots (DraftKings, 2014). Additionally, FanDuel has also entered into agreements with major media partners such as Comcast Ventures and NBC Sports Ventures (FanDuel, 2014a). These agreements represent major steps for fantasy sports as a viable business commodity.

Also similar to sport gambling, success in fantasy sports tends to be a combination of both skill and luck. Through research (i.e., “skill”), fantasy league participants can increase their team’s chances of success, just as sport gamblers utilize research in an attempt to increase their chances of placing successful wagers. However, the outcome for both fantasy sports and sport gambling is also partially luck-based, as no amount of research can guarantee a successful outcome. Additionally, motives for the two activities are quite similar. For instance, as with sport gambling, involvement in fantasy sports may increase one’s interest in the sport and provide additional excitement (Bernhard & Eade, 2005; Drayer, Shapiro, Dwyer, Morse, & White, 2010; Farquhar & Meeds, 2007; Roy & Goss, 2007). There also appear to be a number of demographic and personality similarities between persons playing fantasy sports and those interested in sport gambling, such as gender (men are more common in both activities) and higher levels of sensation seeking (Dwyer & Drayer, 2010; Dwyer & Kim, 2011; Lee et al., 2011). Thus, while fantasy sport is currently not legally viewed as a gambling endeavor (Brustein,

2013; Hollerman, 2006), the two pastimes have much in common. Consequently, it is reasonable and useful to examine participation in fantasy sports as a means of gaining insight into potential consequences of the legalization of sport gambling.

A particularly relevant commonality between sport gambling and fantasy sport participation is reflected in the possibility that involvement in fantasy sport could alter the fandom, identification, and/or spectating behaviors of the players (Hollerman, 2006; Karg & McDonald, 2011). Previously, concerns were raised by sport leagues who argued that fantasy sport players would stop supporting their actual favorite teams and, instead, focus primarily on their fantasy teams (an argument similar to that now being offered as a reason to limit sport wagering). However, a large volume of research refutes this notion (Drayer et al., 2010; Spinda, Wann, & Sollitto, 2012). For instance, compared to persons not playing fantasy sports, Mahan and his associates (2012) found that individuals playing fantasy sports reported higher levels of identification with their favorite team while Karg and McDonald (2011) found that persons playing fantasy sports reported higher levels of attachment to leagues, teams, and players. Dwyer and Drayer (2010) summarized their research by stating “when given a choice, heavy consumers will still choose to associate most strongly with their favorite team instead of their fantasy team” (p. 215).

Furthermore, several investigations have found that participation in fantasy sports predicts sport consumption, including higher levels of game attendance, greater consumption televised sport, and increased consumption via the Internet (e.g., Drayer et al., 2010; Karg & McDonald, 2011; Randle & Nyland, 2008). Nesbit and King (2010a, 2010b) analyzed the impact of fantasy sports participation on NFL attendance and television viewership of NFL and MLB games, finding that fantasy sports participation was significantly and positively related to both forms of consumption. These investigators argued that, because fantasy sports participants have an additional point of attachment to the sport, they may continue to consume sport as a season progresses even if their actual team is performing poorly. Fans of poorly performing teams not involved in fantasy sports may grow disinterested and exhibit declines in consumption. For these and other reasons, it is of no great surprise that media partners such as Comcast Ventures and NBC Sports Ventures would therefore be interested in partnering with fantasy sports providers (FanDuel, 2014a).

### **The current study and hypotheses**

In the current investigation, we expanded on past work by asking fans their perceptions of the impact of legalizing sport gambling. That is, we assessed the extent to which individuals believed their lives and sport fandom would be impacted by legalized sport wagering. Based on the aforementioned literature, we were interested in the impact of three key individual difference variables as predictors of impact: gender, level of sport fandom, and level of economic motivation. The following hypotheses and research questions were examined.

#### **Likelihood of wagering and impact of wagering on fan experience**

*Hypothesis 1:* It was hypothesized that, with the increased legalization of sport gambling, men would report a greater likelihood of wagering on sport than women. The rationale for this hypothesis was based on previous work indicating that men are more likely than women to be involved in sport wagering and fantasy sport (Dwyer & Drayer, 2010; Dwyer & Kim, 2011; Lee et al., 2011) and men often report higher levels of economic motivation (Bilyeu & Wann, 2002; Wann, 1995; Wann, Bilyeu et al., 1999; Wann, Schrader et al., 1999).

*Hypothesis 2:* It was hypothesized that, with the increased legalization of sport gambling, persons reporting greater levels of economic motivation would indicate a

greater likelihood of wagering relative to persons with lower levels of this motive. This expectation was based on work indicating that persons with higher levels of economic motivation do indeed gamble on sport with greater frequency (Wann & Ensor, 1999).

*Hypothesis 3:* It was hypothesized that participants higher in general sport fandom would be more likely to report that their wagering would increase with the legalization of sport gambling, relative to persons with lower levels of fandom. The prediction was based on the previous finding that interest in sport is a potential driver for sport wagering (Wann et al., 2001).

*Research Question 1:* With respect to expectations of the impact of sport wagering on their fan experience, previous research had not adequately examined this issue with respect to the various fan groups targeted in this investigation. Consequently, the development and testing of specific predictions was not warranted. Therefore, this topic was examined within the framework of a research question inquiring: “How do participants expect wagering to impact their sport viewing experience (e.g., add excitement, create a distraction) and do patterns differ among the three individual difference variables (i.e., gender, sport fandom, and economic motivation)?”

### **Impact on interest in sport and sport consumption**

*Hypothesis 4:* It was hypothesized that, with the increased legalization of sport gambling, level of economic motivation would be a significant positive predictor of beliefs that wagering on sport would increase one’s interest in sport. The predicted pattern of effects was based on research indicating that persons who gamble on sport report doing so, at least in part, because wagering increases their interest in and excitement for sporting events (Oster & Knapp, 1998; Petry, 2003).

*Research Question 2:* With respect to gender and level of fandom as predictors of beliefs that wagering on sport would increase one’s interest in sport, research has yet to fully investigate these relationships, rendering specific hypotheses inappropriate. Therefore, this issue was examined within the framework of a research question inquiring: “To what extent do gender and level of sport fandom significantly predict beliefs that wagering on sport would increase one’s interest in sport, should legalized sport gambling become more available?”

*Hypothesis 5:* It was hypothesized that, with the increased legalization of sport gambling, level of economic motivation would be a significant positive predictor of belief that increases in legalized sport gambling would increase one’s sport consumption. The expected pattern was based on prior work indicating that persons who gamble on sport report greater interest in consumption (Funk et al., 2006) and this interest should be magnified for persons motivated by sport wagering (Wann et al., 2001). Additional support comes from prior work indicating that participation in fantasy sports can have a positive influence on consumption (Drayer et al., 2010; Karg & McDonald, 2011; Randle & Nyland, 2008).

*Research Question 3:* With respect to gender and level of fandom as predictors of belief that increases in legalized sport gambling would increase one’s sport consumption, research has yet to sufficiently investigate these relationships, rendering specific hypotheses inappropriate. Therefore, these relationships were examined within the framework of a research question inquiring: “To what extent do gender and level of sport fandom significantly predict belief that increases in legalized sport gambling would increase one’s sport consumption, should legalized sport gambling become more available?”

## Method

### Participants

The original (convenience) sample consisted of 611 students attending one of five U.S. universities. The universities were located in several states in the southcentral, central, northeast, and southeast areas of the United States and all were located in states in which sports wagering was not legal. The athletic teams representing the target universities participated in numerous NCAA Division I and Division II sports. Thus, it is possible to wager on many of the teams competing for the target schools, including both men's basketball and football.

Thirty-one persons returned incomplete protocols and were thus removed from consideration. As a result, the final sample consisted of 580 persons (245 male; 345 female). They had a mean age of 21.25 years ( $SD = 4.12$ ; range = 18 to 53). With respect to race, 71% reported being "European/Anglo American or white," 15% "African American; of African descent," 8% "Latino," 4% "Asian American; of Asian descent," 2% "Biracial", and <1% "Native American" (1% declined to indicate race). Participants were recruited from specific courses or psychology participant pools in which they could chose to participate in many different studies (i.e., their participation in this particular study was not mandatory).

### Materials and Procedure

Subsequent to receiving Institutional Review Board (IRB) approval, participants were tested in group settings in university classrooms. Upon arriving at the testing session and providing their consent, participants were handed a questionnaire packet containing four sections. Section one included demographic items assessing age, gender, and race/ethnicity. The second section contained the three-item economic motivation subscale (ECO) from the Sport Fan Motivation Scale (Wann, 1995). This subscale is designed to assess the extent to which individuals are motivated to follow sport for the opportunity to place sport wagers. Response options ranged from 1 (*this is not at all descriptive of me*) to 8 (*this is very descriptive of me*) and higher numbers indicated greater amounts of economic motivation. A sample item read: "Sports are only enjoyable if you can bet on the outcome." Cronbach's reliability alpha for the current data set = .837.

The third section of the packet contained the Sport Fandom Questionnaire (SFQ; Wann, 2002). This five-item scale assesses the extent to which individuals identify with the role of sport fan. Response options ranged from 1 (*strongly disagree*) to 8 (*strongly agree*) and higher numbers corresponded with higher levels of fandom. A sample item read: "Being a sport fan is very important to me." Cronbach's reliability alpha for the current data set = .955.

The fourth and final section contained nine items specifically developed for this study that were designed to assess the potential impact of the increased legalization of sport wagering. The first two items assessed likelihood of wagering. Specifically, these items asked: "If gambling/wagering on professional and college sporting events were made legal (i.e., you could legally wager on live sporting events at nearby casinos and racetracks), which of the following best represents you?" The first item targeted wagering on sporting events in general. Participants were instructed to circle one of the following six response options: "I would never bet on sporting events," "I would be slightly likely to bet on sporting events," "I would be somewhat likely to bet on sporting events," "I would be likely to bet on sporting events," "I would be highly likely to bet on sporting events," or "I would be certain to bet on sporting events." The second time this item was presented, the focus was specifically on the participants' favorite teams. Thus, the phrase "involving my favorite teams" was added to the end of each of the six response options (e.g., "I would never bet on sporting events involving my favorite teams").

The next item examined respondents' beliefs about the potential impact of sport wagering on their sport viewing experience. Participants read: "If you had placed a legal wager on a team and were watching that contest, how do you think that wager would impact you at a game?" Participants were to circle one of five responses: "it would have no impact," "it would add a bit of excitement of the game," "it would add a great deal of excitement of the game," "it would be a bit of a distraction from the game," or "it would be a huge distraction from the game."

The next two items examined beliefs in the impact of legalized wagering on interest in sport. The first item read: "If gambling/wagering on professional and college sporting events were made legal (i.e., you could legally wager on live sporting events at nearby casinos and racetracks), how do you feel it would impact your interest in sport, in general?" This item was then repeated for participant's favorite teams (i.e., the phrase "impact your interest in sport, in general" was replaced with "impact your interest in your favorite teams"). Response options ranged from 1 (*it would decrease my interest*) to 8 (*it would increase my interest*).

The final four items assessed potential impacts on sport consumption. The first two items targeted direct consumption via attendance at sporting event. This item read: "If gambling/wagering on professional and college sporting events were made legal (i.e., you could legally wager on live sporting events at nearby casinos and racetracks), how do you feel it would impact your attendance at sporting events, in general?" This item was repeated for participants' favorite teams (i.e., the phrase "attendance at sporting events, in general" was replaced with "attendance at sporting events involving your favorite team"). Response options ranged from 1 (*it would decrease my likelihood of attendance*) to 8 (*it would increase my likelihood of attendance*). Thus, higher numbers represented expectations of increased attendance. The next two consumption items focused on indirect consumption via televised sport. The first of these items asked: "If gambling/wagering on professional and college sporting events were made legal (i.e., you could legally wager on live sporting events at nearby casinos and racetracks), how do you feel it would impact your viewing of televised sporting events, in general?" This item was repeated for the participants' favorite teams. Response options to these two items ranged from 1 (*it would decrease my likelihood of watching*) to 8 (*it would increase my likelihood of watching*).

After completing the questionnaire packet (approximately 15-20 minutes), participants were debriefed and excused from the testing session.

## Results

### Preliminary Analyses

Items on the economic motivation subscale (ECO) and general fandom scale (SFQ) were summed to form indices for each scale. Means, standard deviations, and Cronbach's alphas appear in Table 1 (both scales had acceptable reliability). Potential gender differences in responses to the scales were examined via a multivariate analysis of variance (MANOVA). The MANOVA revealed a significant effect for gender, Wilks' Lambda  $F(2, 577) = 42.64, p < .001$ . Univariate tests indicated that men scored higher than women on both economic motivation (ECO) [male  $M = 5.14, SD = 3.93$ ; female  $M = 4.10, SD = 2.51$ ;  $F(1, 578) = 14.99, p < .001$ ] and general fandom (SFQ) [male  $M = 29.59, SD = 11.27$ ; female  $M = 21.92, SD = 10.62$ ;  $F(1, 578) = 69.38, p < .001$ ]. Consequently, gender was included in the analyses below.



Table 1  
Means and Standard Deviations.

Measure	M	SD
ECO	4.52	3.02
SFQ	25.03	11.51
Interest in sport in general	3.95	2.05
Interest in favorite team	4.10	2.10
Attend sporting events in general	3.70	1.99
Attend favorite team's games	3.92	2.06
Watch televised events in general	4.14	2.14
Watch favorite team on television	4.19	2.21

Note: ECO = economic motivation; SFQ = sport fandom.

### Likelihood of Sport Wagering and Impact on Fan Experience

The initial series of analyses examined the items targeting the potential impact of the increased legalization of sport wagering on intentions to wager and the sport viewing experience. Prior to the examination of these questions, a pair of median splits were utilized to classify participants into groups low ( $n = 383$ ;  $M = 3.00$ ;  $SD = 0.00$ ; range = 3 to 3)<sup>1</sup> or high ( $n = 197$ ;  $M = 7.49$ ;  $SD = 4.11$ ; range = 4 to 24) in economic motivation (ECO) and low ( $n = 288$ ;  $M = 14.95$ ;  $SD = 6.90$ ; range = 5 to 26) or high ( $n = 292$ ;  $M = 34.98$ ;  $SD = 4.07$ ; range = 27 to 40) in sport fandom (SFQ). One-way analyses of variance revealed that the high ECO group was significantly higher than the low ECO group in economic motivation,  $F(1, 578) = 456.69$ ,  $p < .001$ , and the high SFQ group was significantly higher than the low SFQ group in fandom,  $F(1, 578) = 1820.61$ ,  $p < .001$ .

**Likelihood of sport wagering.** Participants' expectations of how the increased legalization of sport gambling would impact their likelihood of placing a sport wager were examined via a series of  $X^2$  analyses examining frequencies of responses across men and women, persons low or high in economic motivation, and those low or high in fandom. The first set of analyses examined wagering on sport in general (see Table 2 for percentages). It was hypothesized (H1) that men would report a greater likelihood of wagering on sport than women. The analysis targeting gender revealed a significant effect,  $X^2(5) = 52.16$ ,  $p < .001$ . As depicted in Table 2 and consistent with predictions, men were more likely than women to expect an increase in their sport wagering. Hypothesis 2 stated that persons reporting greater levels of economic motivation would indicate a greater likelihood of wagering relative to persons with lower levels of this motive. The analysis revealed support for this pattern of effects as the frequencies again were significant different across condition,  $X^2(5) = 129.29$ ,  $p < .001$ . Specifically, as revealed in Table 2, individuals higher in economic motivation were indeed more likely to expect an increase in their sport wagering. The third analysis targeted persons low and high in SFQ and was also statistically significant,  $X^2(5) = 25.07$ ,  $p < .001$ . As shown in Table 2, and consistent with Hypothesis 3, persons higher in sport fandom were more likely to expect an increase in their sport wagering. Overall across the whole sample, less than half of the participants reported that they would never wager on sporting events while 58% indicated at least a minimal likelihood of placing a wager. A total of 12% reported an expectation that they would be "likely" to "certain" to bet on sports.

<sup>1</sup> Because of the large numbers of persons (66%) scoring at the bottom of the ECO scale (i.e., 3.00), a true median split was not feasible. Thus, all person who scored 3.00 were placed into the low ECO group while all those scoring 4.00 or higher (i.e., those with at least a slight interest in sport wagering) were placed into the high ECO group.

The next three analyses examined wagering on one's favorite teams (see Table 3 for percentages). Consistent with Hypothesis 1, the analysis examining gender revealed a significant effect,  $X^2(5) = 18.71, p < .005$ . As depicted in Table 3, men were more likely than women to expect an increase in wagering on their favorite teams. As for the second analysis on ECO, the frequencies again were significantly different,  $X^2(5) = 97.60, p < .001$ . Table 3 shows that individuals higher in economic motivation were more likely to expect an increase in their wagering, thus supporting Hypothesis 2. As for SFQ and Hypothesis 3, the third analysis was also statistically significant,  $X^2(5) = 18.26, p < .005$ . As shown in Table 3, persons higher in sport fandom were more likely to expect an increase in wagering. Overall across the whole sample, less than half of the participants reported that they would never wager on their favorite teams while 60% indicated at least a minimal likelihood of betting on favorite teams. A total of 17% reported an expectation that they would be "likely" to "certain" to bet on favorites.

Table 2  
*Likelihood of Wagering on Sporting Events in General if Wagering Were Made Legal (Percentages).*

Group	Likelihood of Sport Wagering					
	never	slightly	somewhat	likely	highly	certain
<i>Gender</i>						
Male	32	31	15	12	6	6
Female	48	35	11	4	1	0
<i>ECO</i>						
Low ECO	54	34	8	3	3	3
High ECO	16	33	22	16	8	6
<i>SFQ</i>						
Low SFQ	50	31	12	4	2	1
High SFQ	33	36	14	11	4	3
Total sample	41	33	13	7	3	2

Notes: ECO = economic motivation; SFQ = sport fandom. Total across rows may not sum to 100 due to rounding.

Table 3  
Likelihood of Wagering on Favorite Teams if Wagering Were Made Legal (Percentages).

Group	Likelihood of Sport Wagering					
	never	slightly	somewhat	likely	highly	certain
<i>Gender</i>						
Male	36	25	17	11	6	6
Female	45	30	13	9	2	1
<i>ECO</i>						
Low ECO	53	28	10	6	2	1
High ECO	18	27	23	18	7	7
<i>SFQ</i>						
Low SFQ	50	25	12	8	3	2
High SFQ	33	30	17	10	5	4
Total sample	41	28	15	10	4	3

Notes: ECO = economic motivation; SFQ = sport fandom. Total across rows may not sum to 100 due to rounding.

**Impact of sport wagering on fan experience.** Next we investigated participants' expectations of how placing a legal wager would impact their experience of watching a contest (Research Question 1). This was accomplished through a series of  $X^2$  analyses examining frequencies of responses across men and women, persons low or high in ECO, and those low or high in SFQ. The analysis focused on gender revealed a significant effect,  $X^2(4) = 21.64, p < .005$ . As depicted in Table 4, women were more likely to report that wagering would have no impact or add a bit of excitement while men were more likely to report that it would add a great deal of excitement or be a distraction. As for the second analysis (ECO), the frequencies were significantly different,  $X^2(4) = 23.87, p < .001$ . Table 4 reveals that individuals lower in economic motivation were more likely to report that wagering would have no impact while those higher were more likely to indicate that it would add a great deal of excitement. Similar responses between ECO groups were found for wagering adding a bit of excitement and for being a distraction. The analysis on SFQ was also significant,  $X^2(4) = 20.84, p < .001$ . As shown in Table 4, persons lower in fandom were more likely to believe that wagering would not impact their sport viewing experience. Those higher in fandom were more likely to feel that placing a wager would either add excitement or be a distraction to their experience. Sample-wide, less than 25% of the participants expected wagering to have no impact on their experience. Although 20% of the sample indicated that wagering would serve as a distraction, over twice as many persons (59%) believed that wagering would increase the excitement of the game. The most frequent response was that placing a sport wager would add a great deal of excitement to the sport consumption experience.

Table 4  
*Impact of Placing a Wager on Experience of Watching the Contest (Percentages).*

Group	Impact on Viewing Experience				
	none	add bit of excitement	add great deal of excitement	be bit of distraction	be huge distraction
<i>Gender</i>					
Male	14	21	40	14	11
Female	27	26	31	8	8
<i>ECO</i>					
Low ECO	27	25	29	10	9
High ECO	12	22	46	11	9
<i>SFQ</i>					
Low SFQ	30	22	32	8	9
High SFQ	14	25	37	13	10
Total sample	22	24	35	11	9

Notes: ECO = economic motivation; SFQ = sport fandom. Total across rows may not sum to 100 due to rounding.

### Predictors of Impact on Interest in Sport and Sport Consumption

The next series of analyses involved an investigation of perceptions of potential impact of the increased legalization of sport gambling on and interest in sport and both direct (event attendance) and indirect (television) consumption. This involved a series of regressions in which gender (coded 1 = male; 2 = female), ECO, and SFQ were utilized as predictors. Means and standard deviations appear in Table 1 while correlations among the variables appear in Table 5.

**Interest in sport.** The first series of regressions examined interest in sport (Hypothesis 4 and Research Question 2). The first regression examined the impact of sport wagering on participants' interest in sport in general. This regression revealed that the combined effect of the three predictor variables was significant,  $F(3, 576) = 33.95$ ,  $p < .001$  ( $R = 0.388$ ;  $R^2 = 0.150$ ; adjusted  $R^2 = 0.146$ ). With respect to independent contributions (see Table 6 for additional regression statistics), ECO ( $t = 6.27$ ,  $p < .001$ ) and SFQ ( $t = 6.09$ ,  $p < .001$ ) each accounted for a significant proportion of unique variance in general sport interest. Specifically, greater estimates of interest were reported by persons with greater levels of economic motivation (thus confirming Hypothesis 4) and persons higher in general sport fandom. Gender ( $t = -1.91$ ,  $p > .05$ ) was not a significant independent contributor.

With respect to interest in one's favorite teams, the regression indicated that the combined effect of the three predictor variables was significant,  $F(3, 576) = 37.79$ ,  $p < .001$  ( $R = 0.406$ ;  $R^2 = 0.164$ ; adjusted  $R^2 = 0.160$ ). With respect to independent contributions, consistent with the previous analysis, both ECO ( $t = 7.19$ ,  $p < .001$ ) and SFQ ( $t = 7.04$ ,  $p < .001$ ) accounted for a significant proportion of unique variance in interest in one's favorite teams. Greater estimates of interest were reported by persons with greater levels of economic motivation (consistent with Hypothesis 4) and persons higher in general sport fandom. Once again, gender ( $t = -0.11$ ,  $p > .90$ ) was not a significant independent contributor.

Table 5  
Correlations among the Measures.

	1	2	3	4	5	6	7	8	9
Gender (1)	--								
ECO (2)	-.16*	--							
SFQ (3)	-.33*	.04	--						
Interest in sport in general (4)	-.20*	.27*	.28*	--					
Interest in favorite teams (5)	-.14*	.29*	.30*	.89*	--				
Attendance sporting events in general (6)	-.20*	.30*	.30*	.77*	.78*	--			
Attendance at favorite teams' games (7)	-.15*	.27*	.28*	.81*	.84*	.87*	--		
Watch sport on television in general (8)	-.20*	.29*	.31*	.86*	.87*	.75*	.77*	--	
Watch favorite teams on television (9)	-.15*	.28*	.30*	.85*	.89*	.75*	.82*	.92*	--

Note: ECO = economic motivation; SFQ = general fandom. \* indicates  $p < .001$

Table 6  
Regression Statistics.

<i>Analysis</i>	<i>B</i>	<i>SE B</i>	<i>Beta</i>
<i>Interest in sport in general</i>			
ECO	0.156	0.025	0.244
SFQ	0.044	0.007	0.247
Gender	-0.329	0.172	-0.079
<i>Interest in one's favorite team</i>			
ECO	0.182	0.025	0.278
SFQ	0.052	0.007	0.284
Gender	-0.018	0.175	-0.004
<i>Attending events in general</i>			
ECO	0.176	0.024	0.284
SFQ	0.046	0.007	0.266
Gender	-0.266	0.164	-0.066
<i>Attending events of favorite team</i>			
ECO	0.165	0.025	0.257
SFQ	0.047	0.007	0.263
Gender	-0.076	0.173	-0.018
<i>Watching televised sport in general</i>			
ECO	0.179	0.026	0.267
SFQ	0.051	0.007	0.276
Gender	-0.291	0.177	-0.067
<i>Watching a favorite team on television</i>			
ECO	0.182	0.027	0.263
SFQ	0.055	0.008	0.284
Gender	-0.051	0.184	-0.011

Note: ECO = economic motivation; SFQ = sport fandom.

**Impact on consumption.** The next series of four regressions examined consumption and focused on Hypothesis 5 and Research Question 3. The first two analyses targeted attendance (at sporting events in general and at events involving a favorite team) while the second pair examined watching televised sport (for sport in general and a favorite team). In terms of attendance at sporting events, for the first regression (attending events in general) the combined effect of the three predictor variables was significant,  $F(3, 576) = 41.73, p < .001$  ( $R = 0.423$ ;  $R^2 = 0.179$ ; adjusted  $R^2 = 0.174$ ). With respect to independent contributions, ECO ( $t = 7.41, p < .001$ ) and SFQ ( $t = 6.66, p < .001$ ) each accounted for a significant proportion of unique variance in likelihood of attending sporting events, in general. Specifically, greater estimates of likelihood were reported by persons with greater levels of economic motivation (supporting Hypothesis 5) and persons higher in general sport fandom. Gender ( $t = -1.62, p > .10$ ) did not.

In terms of attending contests for favorite teams, the combined effect of the three predictor variables was again significant,  $F(3, 576) = 32.54, p < .001$  ( $R = 0.381$ ;  $R^2 = 0.145$ ; adjusted  $R^2 = 0.140$ ). With respect to independent contributions, consistent with the previous regression, ECO ( $t = 6.59, p < .001$ ) and SFQ ( $t = 6.44, p < .001$ ) each accounted for a significant proportion of unique variance as greater estimates of likelihood were reported by individuals with greater levels of economic motivation (confirming Hypothesis 5) and persons higher in general fandom. Also consistent with the previous regression, gender ( $t = -0.44, p > .60$ ) was not a significant independent contributor.

The next pair of regression analyses examined indirect consumption through viewing of televised sporting events. For the first regression (watching televised sport in general), the combined effect of the three predictor variables was significant,  $F(3, 576) = 40.75$ ,  $p < .001$  ( $R = 0.418$ ;  $R^2 = 0.175$ ; adjusted  $R^2 = 0.171$ ). With respect to independent contributions, ECO ( $t = 6.97$ ,  $p < .001$ ) and SFQ ( $t = 6.89$ ,  $p < .001$ ) each accounted for a significant proportion of unique variance in likelihood of watching sport on television in general. Specifically, greater estimates of likelihood were reported by persons with greater levels of economic motivation (as predicted by Hypothesis 5) and persons higher in general sport fandom. Gender ( $t = -1.65$ ,  $p > .05$ ) failed to account for a significant proportion of unique variance.

The final regression to target consumption examined predictors of watching a favorite team on television. This analysis indicated that the combined effect of the three predictor variables was significant,  $F(3, 576) = 38.19$ ,  $p < .001$  ( $R = 0.398$ ;  $R^2 = 0.159$ ; adjusted  $R^2 = 0.154$ ). With respect to independent contributions, consistent with the examination of general viewing of televised sport, both ECO ( $t = 6.79$ ,  $p < .001$ ) and SFQ ( $t = 7.03$ ,  $p < .001$ ) each accounted for a significant proportion of unique variance in likelihood of viewing televised sport of a favorite team. Specifically, greater estimates of likelihood were reported by persons with greater levels of economic motivation (confirming Hypothesis 5) and persons higher in general sport fandom. Once again, gender ( $t = -0.28$ ,  $p > .70$ ) was not a significant contributor.

## **Discussion**

Sport gambling is a lucrative enterprise, with billions of dollars wagered legally (and more illegally) in the United States each year (Sports wagering, 2013). Historically, professional and collegiate organizations have been fervent challengers to the increased legalization of sport wagering. Although these groups have listed multiple reasons for their opposition, one common argument is that increased legalization would fundamentally change the manner in which fans follow, consume, and react to sporting events (Tuohy, 2013). The current research was designed to examine possible changes in fandom by investigating perceptions of the impact of increasing the legalization of sport wagering on likelihood of gambling and its impact of the fan experience, interest in sport, and sport consumption.

With respect to impact on wagering, participants from certain groups believed that the increased legalization of sport gambling would result in increased wagering. Consistent with past work (e.g., Bilyeu & Wann, 2002; Dwyer & Drayer, 2010; Lee et al., 2011), men, persons with higher levels of economic motivation, and persons higher in sport fandom reported that the increased legalization of sport gambling would result in increased gambling. These patterns were found for gambling on sport in general and for wagering on one's favorite teams. Thus, it appears that these groups would be most sensitive and responsive to changes in public policy legalizing sport gambling. However, it warrants mention that, even among these specific groups, increases in legalization were not believed to have a major impact. That is, no more than 30% of respondents from these groups believed that their wagering was "likely," "highly like," or "certain" to increase. Conversely, most persons believed that their wagering would either not increase or only increase "slightly." Thus, in terms of the impact of the increased legalization of sport gambling on tendencies to wager on sport, our data suggest that certain groups would exhibit a modest increase in wagering but, overall, the impact on wagering tendencies would be small.

As for the potential impact on the fan experience, the  $X^2$  analyses revealed differences among the groups. Women, individuals lower in economic motivation, and persons lower in sport fandom were more likely to report that wagering would have no impact on their sport viewing experiences. Conversely, men, participants higher in economic motivation, and those higher in fandom were more likely to indicate that

placing a wager on an event would add a great deal of excitement. Across the entire sample, approximately 75% of respondents indicated that placing a wager would impact their viewing in some manner (i.e., either positively via excitement or negatively via distraction). However, persons were almost three times more likely to report that placing a wager would positively impact their experience than to indicate it would have a negative impact. Therefore, with respect to the impact of the increased legalization of sport gambling on fan experiences, our data suggest that most persons believe it would have an impact, and most of these individuals believe that the impact would be positive via increased excitement (although a fairly sizeable minority believed the impact would be negative by serving as a distraction). Additionally, expectations of a positive impact were magnified among demographic groups who tend to be involved in sport gambling (e.g., men, persons with higher levels of fandom).

As for interest in sport, the results revealed that, as hypothesized and consistent with previous work (Oster & Knapp, 1998), persons with higher levels of economic motivation were particularly likely to believe that the legalization of sport wagering would increase their interest in sport. Persons higher in sport fandom similarly indicated that increasing access to legalized sport gambling would increase interest. No such relationship was found for gender. These patterns of effects were mirrored for interest in one's favorite teams. Thus, our data suggest increasing access to legalized sport wagering would increase the level of interest certain groups have in sport and their favorite teams.

The final series of analyses examined sport consumption. These results were remarkably consistent. Specifically, for both forms of consumption (direct and indirect) and for both targets (sport in general and one's favorite teams), persons with higher levels of economic motivation and individuals with higher levels of fandom reported that the increased legalization of sport wagering would increase their consumption. Additionally, all four analyses indicated that gender was not related to increases in consumption. Thus, our data indicate that increasing access to legalized sport gambling would lead to increased consumption for certain groups and that the consumption would be both general (for sport) and specific (for one's favorite teams).

It was previously noted that fantasy sports and sport gambling share a number of similarities, justifying comparisons between the two activities. Although professional league officials were originally concerned about the potential negative impact of fantasy sports participation, these undesirable effects never materialized. In fact, it appears as though fantasy sports play may be beneficial for leagues and teams as participation is positively associated with higher consumption levels (Drayer et al., 2010; Karg & McDonald, 2011; Randle & Nyland, 2008). It is not surprising then that sport leagues now generally support and encourage fantasy sports participation (FanDuel, 2014b; Hollerman, 2006; Karg & McDonald, 2011). Given the interest and consumption data reported above, it seems reasonable to conclude that the increased legalization and accessibility of sport gambling would result in consequences similar to those for participation in fantasy sports (e.g., increased interest and consumption). For these and other reasons, the op-ed written by NBA Commissioner Adam Silver on the legalization and regulation of sport gambling speaks to the capabilities of sports wagering (Silver, 2014) and fantasy sports (DraftKings, 2014; FanDuel, 2014b) to attract the sport consumer to the product. It will be interesting to see if other professional sports leagues will assume a similar position on sports gambling and fantasy sports in the future. Additionally, future researchers may want to investigate the possible relationship between participation in fantasy sports and perceptions of the impact of the increased legalization of sports gambling. Given that these two activities share many commonalities, it may be that participation in fantasy sports would serve as another significant predictor of perceptions of influence, similar to that of economic motivation and fandom detected in the current work.



In the current research, we focused our attention on economic motivation. However, it may be that other motives would be impacted by the increased legalization of gambling as well. These include entertainment, eustress, and group affiliation motives. Entertainment motivation involves the desire to consume sport because it is an enjoyable activity (Wann, 1995). Increasing the availability of legalized sport gambling would likely increase wagering on events. For those placing wagers, the wager could itself be entertaining (e.g., increase their enjoyment of the event, their perceptions that the event is pleasurable, etc.), and thus, they may be more motivated to be involved as a fan.

A second additional motive that may be impacted by the increased accessibility of legalized gambling is eustress. Individuals motivated by this factor consume sport to experience the excitement and arousal that often accompanies sport spectating. Persons often feel a sense of excitement when gambling and this, along with the element of risk, is often a motivating factor to gamble (Petry, 2003). For fans driven by eustress, placing a wager may increase the excitement and arousal they receive when watching sport. Thus, increasing the availability of legalized gambling may result in higher levels of fandom among persons with high levels of eustress (i.e., the added excitement of having placed a wager enhances the excitement of following sport and, thus, increases consumption).

A third motive of interest involves affiliation, that is, the desire to follow and consume sport because it provides opportunities to socialize and spend time with others (Wann, 1995). Fang and Mowen (2009) found that the desire to be with friends was a key predictor of sport gambling. Similarly, Paul and Weinbach (2010) report that betting volume for NBA and NHL games increases for games played on social holidays, such as Christmas. Increasing the legalization of sport wagering may increase opportunities for persons to socialize via sport (or enhance the social nature of an event), thereby increasing their interest in and consumption of sport.

### **Limitations**

Certain limitations of the current work warrant mention. First, because the current investigation was specifically focused on changes in U.S. legislation regarding sport gambling, we limited our examination to this geographic area. Other factors not studied here could impact perceptions of changes in gambling laws in other countries. Future researchers from other locales should attempt to examine this topic as well, in an attempt to generalize the current findings to additional populations and cultures.

A second limitation involves the fact that the current work was generally focused on in-person wagering. For instance, participants read "(i.e., you could legally wager on live sporting events at nearby casinos and racetracks)" as instructions for the items and we assessed consequences for in-person (i.e., direct) consumption but not for online sport viewing. Given that a great deal of sport wagering could (and does) occur online, future endeavors should examine the manner and extent to which individuals report that increasing the legalization of sport wagering would impact their online betting and their consumption of sport in the Internet.

A third limitation that deserves mention involves the use of a college student convenience sample. University students are frequently utilized as subjects in sport fandom research, a methodological process that is justified by their high levels of interest in sport spectating and fandom (Wann et al., 2001). Furthermore, the use of this target group is substantiated by the fact that college students often report particularly high levels of interest in sport gambling (Layden, 1995). However, the fact remains that our sample was highly homogeneous with respect to age and education level. Given that the average age of our sample was slightly over 21 years, many of our participants were underage for legal gambling and, as a result, may have under-reported their gambling activity. Thus, additional research is needed to replicate the current findings with samples representing other members of the population.

## Conclusion

The potential impacts of the increased legalization of sport gambling have been controversial with state governments, seeking additional revenue streams, pushing for increased access while sport leagues fight to limit sanctioned sport wagering (although some leagues, such as the NBA, appear to be softening their stance on this issue, see Silver, 2014). The current investigation was designed to examine the potential impact of increased legalization on the fan experience. We examined the responses of over 600 university students who completed a questionnaire assessing demographics (e.g., gender), their level of sport fandom, their level of economic fan motivation (i.e., the extent to which they follow sports for the opportunity to wager on events), and items designed to assess the potential impact of the increased legalization of sport wagering. The last items included questions targeting likelihood of wagering, the impact of wagering on the sport experience, the impact on interest in sport, and the impact on sport consumption. Our findings suggest that, in general, the impact of increasing access to legalized sport wagering would likely be low and predominately positive. For example, our findings suggest that increasing legalized sport gambling would lead to small increases in consumption and small increases in interest in sport. Thus, it is likely that the impact would mirror those recently found for persons participating in fantasy sports. However, our findings also revealed that certain individuals were particularly likely to report increases in interest and consumption, should legalized sports wagering become more readily available. Specifically, the greatest effects were found for men, persons with higher levels of economic motivation, and persons higher in sport fandom (e.g., these persons reported that the increased legalization of sport gambling would result in increased gambling).

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