

Sports Betting's Rise and the Line Between Entertainment and Problem Gambling

Key takeaways

Bettors are overoptimistic: in our study, they expect to break even but actually lose 7.5 cents per dollar wagered, with losses on parlays especially underestimated.

Overoptimism is largest among bettors who partake in a complex type of bet known as a parlay. Compared to other forms of betting, parlays are more likely to be driven by bias.

A subset of bettors want to reduce their wagering but struggle to do so, reflecting self-control problems similar to other addictive behaviors.

Current responsible gaming tools — voluntary limits and loss transparency reports — are largely ineffective because they do not address the root behavioral causes of problem gambling.

Since 2018, sports betting has exploded in popularity across the United States. With betting now legal in 39 states, Americans wager more than \$100 billion annually on sports. Many view these wagers as harmless entertainment, but the rapid growth raises concerns about an increase in problem gambling and its effects on consumers.

Advocates for expanding sports betting markets say that people derive enjoyment from betting on sports. They argue that the losses people incur are similar to paying for other forms of entertainment, such as buying a movie ticket. From this perspective, sports betting is a leisure activity in which the cost of participation is well understood and accepted by consumers.

Critics argue that problem gambling can have severe consequences for sports bettors. They claim that sports bettors wager excessively due to behavioral biases, such as overoptimism, self-control problems, or other issues that lead people to bet more than they otherwise would. Behavioral biases can lead to real consequences for bettors and their households, such as high debt loads, bankruptcy, and even domestic violence.

Measuring these possible costs and benefits of sports betting is important because the sports betting market is expanding rapidly while our understanding of its impact on consumers remains limited. Billions of dollars a year flow through sports betting platforms. Moreover, any restrictions on sports betting may encourage illegal gambling, further complicating the matter. Yet there is little empirical evidence to answer these questions.

Furthermore, the lessons to be learned about consumer behavior in sports betting have applications beyond sportsbooks — as the sports betting platforms are known — to other players in the financial industry. Prediction markets and

day trading applications such as Kalshi, Polymarket, and Robinhood allow consumers to place similar speculative bets on a wide range of outcomes. Understanding the behavioral biases that affect sports bettors can help us understand the financial risks consumers face across these growing markets.

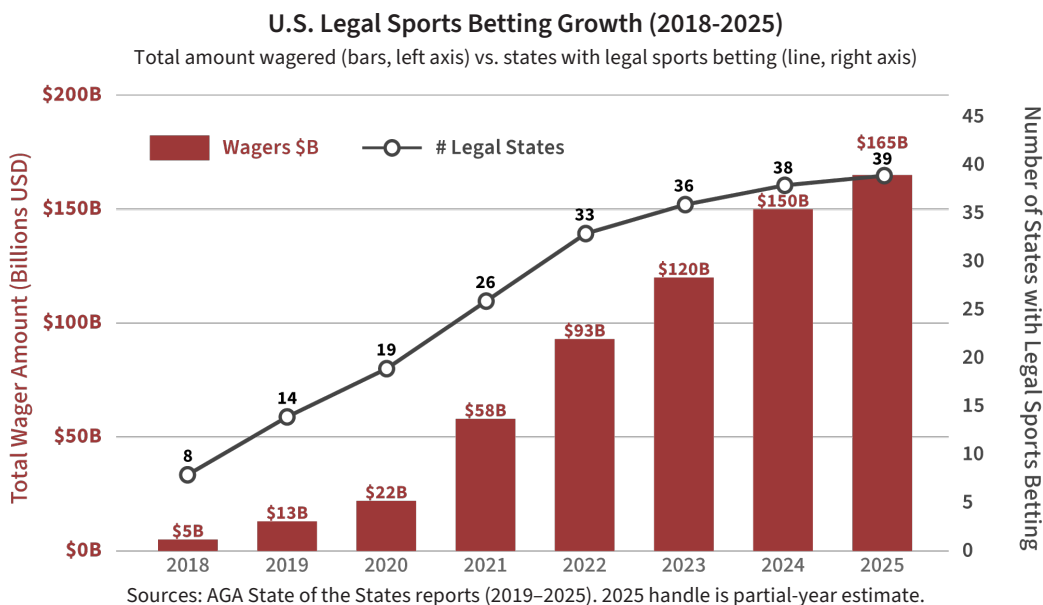
We address these issues in our paper “Do Sports Bettors Need Consumer Protection: Evidence from a Field Experiment,” in which Brown, Grasley, and Guido conducted an experimental survey with 444 high-volume sports bettors. Our research provides a framework and empirical evidence to evaluate the tradeoff between the entertainment value of sports betting and the harms of two prominent behavioral biases: overoptimism and self-control problems.

We begin with an overview of the sports betting industry and its consumers. Then, we address the question of how much of sports betting is driven by entertainment versus problem gambling by collecting a novel dataset that includes both experimental and observational data on consumers’ betting decisions, and by combining these data with an economic model. We also examine two current responsible gambling tools prevalent in the industry and find that they are not well-targeted to counteracting the measured biases. Lastly, we discuss the implications of our findings for both the sports betting and financial industries, as well as directions for future research.

The Sports Betting Industry

Sports betting is a rapidly growing industry. In 2018, the Supreme Court struck down the law prohibiting sports betting nationwide, and as of 2025, 39 states have legalized sportsbooks. In Figure 1, we show the growth in the sports betting industry over time. The total amount of dollars wagered was estimated to be \$165 billion in 2025, a 10% increase from 2024 and 650% increase from 2020 (American Gaming Association). From these wagers, sportsbooks made \$13.7 billion in revenue, and state and local governments received \$3.57 billion in tax revenue in 2024 (USA Facts). Because of the industry’s significant growth potential, sportsbooks, such as DraftKings, FanDuel, and BetMGM, invest heavily to attract and retain consumers, spending \$1.2 billion on advertising in 2024 alone, much of it during sporting events (Nielsen, 2025).

Figure 1. Legalization and industry growth over time.



Increasingly, sportsbooks are facing competition from prediction markets, such as Kalshi, Polymarket, and even Robinhood. These platforms allow consumers to bet on nearly any binary outcome, but in practice, sports predictions account for much of their fee revenue. For example, 89% of Kalshi’s fee revenue comes from sports predictions (InGame, 2025). These firms can legally classify themselves as Designated Contract Markets and are not subject to state laws that prohibit betting, making them legal in all 50 states. These markets have experienced exponential growth; according to an analysis by investment firm Bernstein, Kalshi and Polymarket have seen \$61 billion in total trading volume from January to April 2026, exceeding the \$51 billion total for all of 2025.

The sportsbooks make their money by setting odds such that they receive more in wagers than they disburse in payouts. They offer bets on binary outcomes of sports games, and each bet has odds that indicate how much the consumer wins if the outcome occurs. Their expected profit margin on a particular bet is commonly referred to as the house cut. But the odds are presented in a way that can make it difficult for bettors to determine how much of a cut the sportsbook is receiving per bet, showing payout amounts if a bettor wins rather than the actual probabilities and the sportsbook’s projected cut.

Bettors can also string together multiple outcomes, in what are called parlays. For example, a bettor for the Super Bowl could have bet that the Seahawks won the game, that the total points scored were over 45.5, that the Patriots quarterback had over 2.5 interceptions, and so on. In the unlikely event that all outcomes occur, the bettor receives a large payout from the parlay. However, parlay odds highly favor the sportsbooks. In a handful of states that report separate data on parlays, parlays account for 60-75% of sportsbook revenue but only 25-35% of the money wagered (Washington Post, 2025).

Demographics of Sports Betting

Table 1. Typical Demographic Profile: Overall Population Vs. Weekly Sports Bettors.

	U.S. Population	Weekly Sports Bettors
Age (mean)	51.59	41.47
White (%)	66	59
Male (%)	46	69
Bachelor’s degree or higher (%)	34	50
Graduate degree (%)	13	19
Household income (\$1,000s)	68	101

Source: Grubbs and Kraus (2023)

Bettors tend to be college-educated young men.

In Table 1, we show that, in a representative sample of the U.S. population, weekly sports bettors are much more likely to be male, young, and more educated than the general population. Some 17.8% of individuals aged 18-34 bet weekly, according to the Siena Research Institute. They also have much higher incomes than the general population, earning an average of \$101,000.

It is worth noting that these differences may matter when considering the potential harms of sports betting. Sports bettors have extra income to protect themselves against sports betting losses, and higher levels of education may reduce mistakes while betting. However, because sports bettors are on average younger, there could be long-term consequences for their financial habits.

Problem Gambling and Sports Betting

For the scope of this brief, we define problem gambling as any betting behavior that a rational consumer would not engage in. This can include psychiatric addictions to betting, as well as other forms of behavioral bias that make people irrationally bet. These biases cause consumers to bet more than they otherwise would, leading to financial losses above and beyond those justified by their enjoyment of sports betting.

Problem gambling is a major concern among the public. Attention is often focused on severe forms of psychiatric addiction among all gamblers, which is estimated to be 0.4-1.0% of the population (Diagnostic and Statistical Manual of Mental Disorders, 5th Edition). However, many sports bettors may be susceptible to other forms of behavioral biases that do not classify as psychiatric addiction but still adversely impact their financial condition and lives. The pre-existing literature has little measurement of the scope and severity of these other biases.

Our research goal is to measure two hypothesized behavioral biases that contribute to problem gambling. First, sports bettors may be overoptimistic, that is, they may think they are more skilled at choosing winning bets than they actually are. This can lead sports bettors to wager more than they otherwise would because they think they will lose less on these bets than they do. Second, sports bettors may have self-control problems that lead them to be tempted to bet more in the moment than they otherwise would if they thought through how much they want to bet. These self-control problems could be severe, like psychiatric addiction, or milder forms of temptation. Both of these behavioral biases can cause people to bet more money on sports betting than they rationally desire.

Adverse Financial Effects of Sports Betting

One major concern is that problem gambling leads to adverse financial outcomes for sports bettors. Existing studies found that sports betting negatively affects household savings and finances. Baker et al. (2024) found that individuals in states that legalized sports betting experienced a larger decrease in how much they saved than those in states that did not legalize sports betting. They identified that financially constrained households were especially harmed, with increases in credit card debt and overdrafts. Hollenbeck et al. (2026) found additional negative effects on other aspects of consumer financial health. They found that online sports betting decreases credit scores by an average of 12 points and increases bankruptcy rates by about one per 10,000 at-risk adults per quarter.

These results support concerns that problem gambling in sports betting markets may worsen consumers' financial conditions. Identifying whether behavioral biases lead consumers to wager too much, and the specific biases that drive this, is important for understanding the scope of the issue and how we may address problem gambling in sports betting markets. Any poor financial habits developed through gambling could reduce savings in other financial investments and lead consumers to treat other financial markets as they do gambling.

Existing Tools to Address Problem Gambling

To address problem gambling, sportsbooks employ tools they say promote “responsible gaming”. We study a subset of these tools, which we group into two main types. The first tool allows users to place voluntary limits on their betting. The idea is that users who know they cannot control their gambling will voluntarily opt to limit their future betting, for

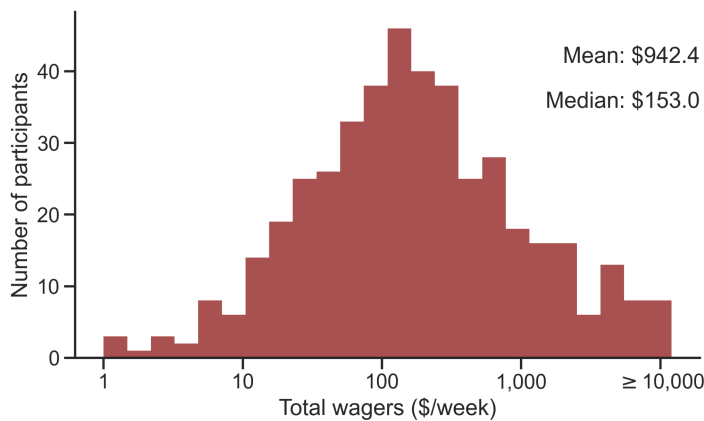
instance, by setting weekly limits on the amount wagered, losses, or time spent on the app. The second type of tool informs users about their past wins and losses. For example, DraftKings provides users with reports of their previous wins and losses to “help customers evaluate their play and make informed choices.”

Two things matter for whether these tools curb problem gambling. First, the gambling must be problematic. Consumers must be betting more than they would want to if they were making informed, rational decisions. Second, these responsible gaming tools must be effectively used by gamblers to address their problem gambling. Otherwise, these tools may go unused or fail to stop harmful betting. In the next section, we show how our research addresses both the scale of problem gambling and the effectiveness of tools in addressing it.

What We Find About the Extent of Problem Gambling

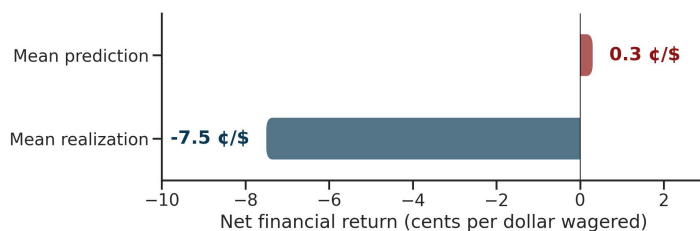
In our research, we collected novel experimental and observational data that allowed us to quantify how much of sports betting was entertainment versus problem gambling. We then developed an economic model that allowed us to evaluate the trade-off between entertainment and problem gambling as well as the effectiveness of different interventions. In our model, sports bettors derived entertainment from betting, but they may also have behavioral biases that led them to wager more than they intended. These biases include overoptimism about their future winnings and self-control problems.

Figure 2. Distribution of sports betting wagers among study participants



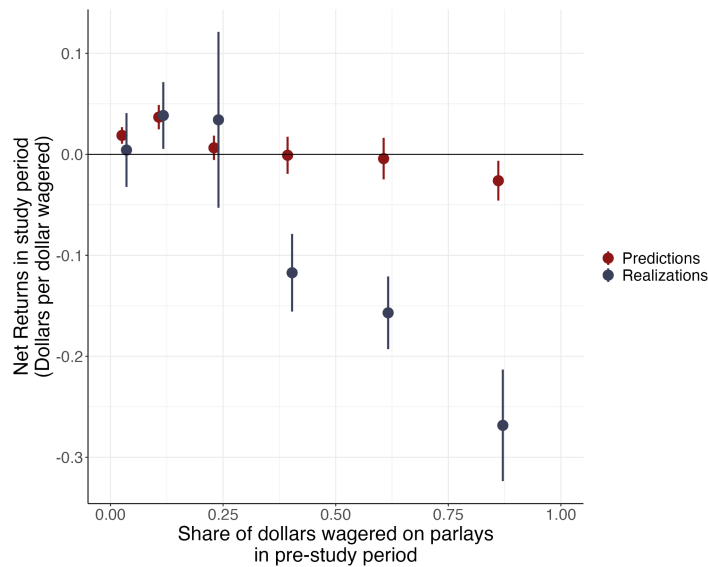
Using online ads, we recruited a sample of 444 sports bettors who bet at least \$100 in the month before our study. We obtained consent from participants in our sample to scrape the transaction histories of their sports betting accounts, allowing us to observe their betting behavior with high accuracy and precision. In Figure 2, we show the typical amount that they bet on sports each week. As shown, most bettors bet moderate amounts, but there was a small number of extreme volume bettors. We then measured whether participants in our survey were overoptimistic about their chances of winning and whether they were unable to control how much they bet. Here is what we found:

Figure 3. Participants’ predicted net winnings versus their actual realized net winnings



Bettors think they will roughly break even, but they actually lose 7.5 cents per dollar wagered. In Figure 3, we show what people predict they would win per dollar wagered (red bar) versus what they actually win (blue bar). We find that people are overoptimistic about their future chances of winning and internalize virtually none of their losses.

Figure 4. Participants with higher parlay share had higher gaps between their predicted and realized net winnings



Another important finding is that bettors do not understand the price of parlays. In Figure 4, we show how overoptimism is associated with the share of a participant’s wagers placed on parlays. We find that while these parlay bettors predict slight losses, they vastly mispredict the actual returns to parlays. In fact, we find that, on average, these bettors incur losses that match the amount the sportsbook makes on these types of bets. In other words, parlays are very advantageous to the house.

A subset of bettors would prefer to bet less than they do. 20% of bettors in our sample reported that they bet on sports too much. Going beyond their self-reported desire to reduce betting, we quantified the degree to which they bet more than they would like to by measuring how much they valued incentives to curb their future consumption. For example, imagine

you wanted to stop swearing. You might create a swear jar, where you charge yourself for each swear. We essentially created a swear jar for betting by paying bettors for each dollar that they reduced their wagering by in the future. We used this “swear jar” to measure how much bettors wanted to bet less. We found that the average bettor in our sample would pay 0.7 cents to reduce their betting by a dollar. Note that this is much smaller than the bettors’ overoptimism bias of 7 cents per dollar, leading us to conclude that, in our sample, overoptimism is the leading form of bias.

Do Responsible Gaming Tools Address Problem Gambling?

We tested whether the two responsible gaming tools discussed earlier work in practice. First, we tested whether people would use limits on their wager amounts to address any self-control problems. Intuitively, if participants routinely set limits below their typical weekly wager amounts, that would be evidence that limits are an effective tool at stopping problem gambling.

Second, we tested whether showing people their past net winnings helped correct overoptimism about the future financial returns of sports betting. Intuitively, if participant overoptimism stemmed from a misunderstanding of past wins and losses, then this intervention would correct it.

We find that, among the sports bettors in our sample, the tools we tested do not prevent problem gambling.

While promising at first glance, we found these tools fail because of how problem gambling works:

- Our study participants did not want to set limits on their gambling mainly because they were uncertain about how much they wanted to bet in the future. In other words, it’s difficult for bettors to predict how much entertainment value they will receive from future sporting events and their accompanying bets.

- Our study participants already remembered their past losses; they just thought the future would be different. If people already know how much they lost in the past, making wins and losses transparent likely has no effect.

This does not mean that we think responsible gaming tools do not have a place; rather, those that are currently being favored are ineffective. We believe we need more research to study these biases and to test interventions that address them effectively.

Where Do We Go From Here?

Our findings point to several promising directions for research and industry practice to improve consumer outcomes in sports betting markets.

Educate the public, especially sports bettors, about the potential harm of sports betting. We show that bettors do not understand the actual costs of sports betting, which is especially dangerous given that many bettors are young. This is increasingly concerning as prediction markets and day-trading applications rise in popularity, since these products may have similar issues. We recommend that educators and financial advisors carefully teach their students or clients about the differences between long-term investing and speculative betting. In the same way we teach consumers about the expected returns of saving for retirement, they should be educated on how overoptimism and self-control problems may lead them to bet more than they intend. Given that sports bettors are generally college-educated, colleges and universities have a role in adding these topics to personal finance courses.

Charge clear, explicit taxes that raise the price of wagering. In various settings, taxes have been shown to reduce overconsumption by raising the price of goods. The same may be true in the sports betting context. Currently, states already tax sports betting, but the odds make it unclear how this affects the price that consumers pay. We propose that states require sportsbooks to report an explicit tax, or fee, on each dollar wagered. This would allow states to fund beneficial government programs through sports betting taxes, while also helping sports bettors reduce their overconsumption of sports wagers.

Research how to better design parlays to allow consumers to make informed choices. We find that bettors are especially uninformed about what they will lose on average when they bet on parlays. This is accompanied by copious amounts of advertising on parlay bets during sports games (Nielsen, 2025). We recommend additional research on how consumers understand the costs of these bets, and also how to design parlays to allow consumers to make informed choices about their betting.

Develop more research on problem gambling and solutions to address it. We still do not fully understand the solutions that will target those at risk of problem gambling. Here are the future areas of research that we believe can have a high impact on policy:

1. Effective financial education interventions that help consumers internalize the potential behavioral biases of sports betting
2. Research on how other growing speculative investments may share similar behavioral biases to sports betting markets.

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