



Global Market Advisors

LAS VEGAS DENVER BANGKOK TAIPEI

Research Brief: The Economics of Sports Betting

April 2, 2018

As the United States awaits a decision by the U.S. Supreme Court on the Professional and Amateur Sports Protection Act of 1992 (“PASPA”) in the Murphy v. NCAA case, stakeholders are busy evaluating the size of the sports betting market opportunity and contemplating how to take advantage of the opportunity. Several government stakeholders have already enacted legislation regarding the potential for sports betting, including the most recent legislation passed in Pennsylvania (2017) and West Virginia (2018). Many other state governments have introduced proposed legislation for the new potential market opportunity, including Iowa, Illinois, Michigan, New York, and Connecticut.

These enacted and proposed legislative pieces have begun to shape the potential regulatory framework of a legalized sports betting market in each state, including setting tax rates and licensing fees. Other stakeholders, including the professional sports leagues, have suggested that an integrity (royalty) fee should be levied as well. Unfortunately, some of these proposed taxes and levies do not fit within the economic construct of the sports betting opportunity as the margins achieved in the industry are too slim for the operator to generate enough profit to justify investment.

To educate stakeholders on the basic economics behind the sports betting market and illustrate how some of these proposed regulations would fit within the framework of the market’s economics, GMA prepared the following research brief as an update to its white paper completed in November 2017 entitled, “An Examination of Sports Betting in America & Forecasts of Revenues by State.” This research brief highlights some of the key educational points that legislators should consider on how sports books operate, the impact that additional royalty fees would have on the operation of facilities, how integrity already exists in the game, and the true revenue potential that exists with sports betting.

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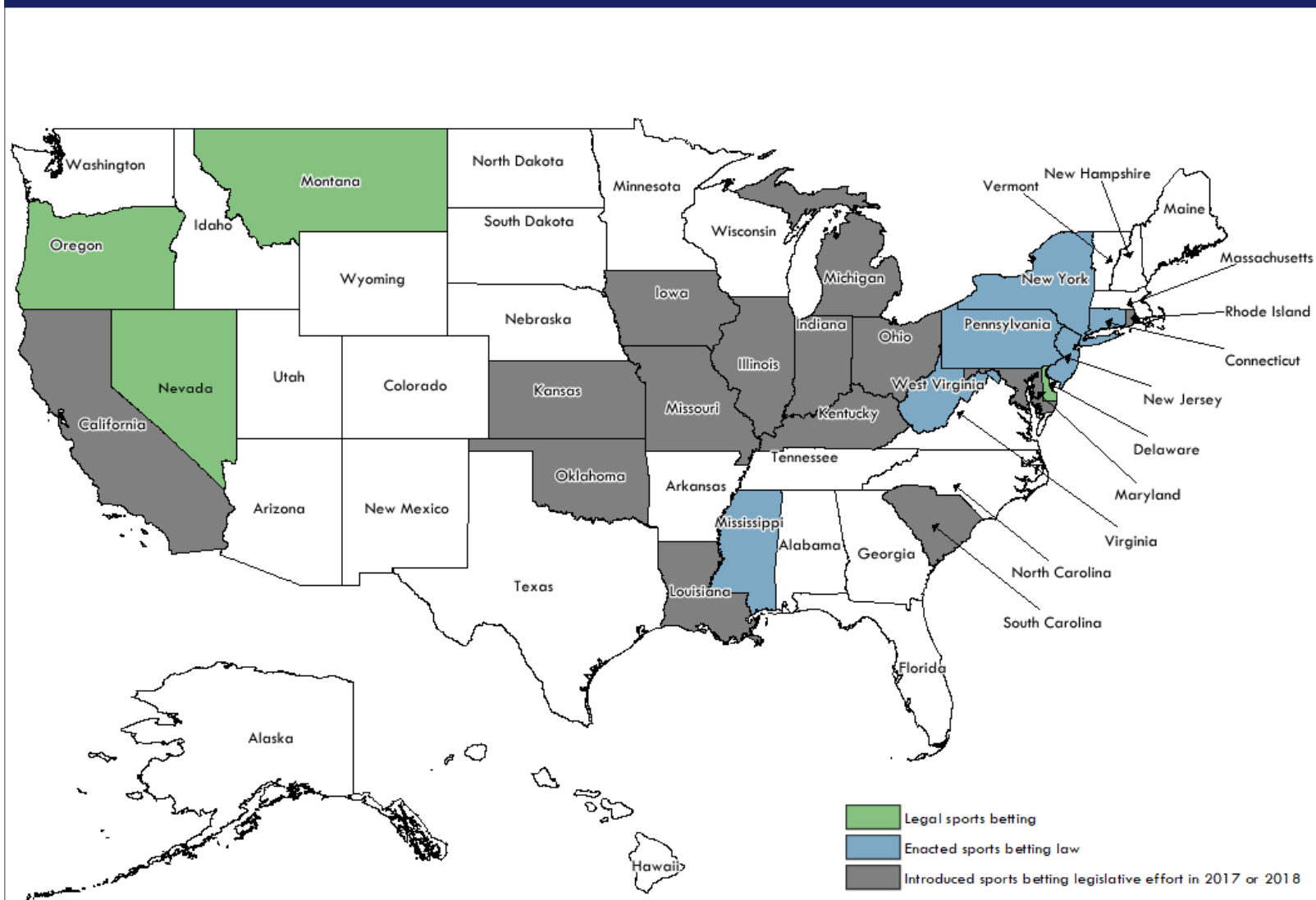
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Sports Betting Legality and Legislative Efforts in the United States



Source: *Legal Sports Report, Global Market Advisors*



THE SPORTS BETTING DOLLAR

As state governments continue to contemplate how to formulate the regulatory framework for sports betting and how they can maximize the benefit to the community in terms of tax revenue and other economic impacts, they should first consider how a bet turns into revenue and how that revenue turns into profit. By understanding the basic economics behind the industry, stakeholders can gain insights into the actual size of the market opportunity and how the characteristics of different regulatory models can hamper or help a sports betting market succeed.

HANDLE TO REVENUE

Several industry pundits have presented their views of the sports betting opportunity by illustrating the market's potential in terms of handle. Handle represents the amount of money wagered on sports betting by market patrons. While this metric is useful in understanding the projected level of market participation in sports betting, it grossly overstates the actual value of the market.

Only a portion of handle is retained by the operators as revenue. On average, operators only hold on to approximately five percent of handle. As such, if a market is projected to generate one dollar in handle, only five cents of that dollar is held by the operators as revenue. The hold percentage generally ranges between 4.5% to 5.5% depending on the type of betting allowed (straight bet, in-game, and prop bets) as well as the operators success in setting lines based on its predictions of the outcomes of future events. Although the sports book operators have become increasingly proficient at setting lines and odds, they still can encounter losses when their predictions go awry. For example, \$159 million was wagered on the Super Bowl in Nevada's sports books in 2018. However, the books only won \$1.1 million, representing a hold percentage of only 0.7%. The green section of the following illustration depicts the slim amount of a sports betting dollar that operators can expect to retain as revenue.



From Handle to Revenue



\$0.95

\$0.05

REVENUE TO PROFIT: EXPLAINING MARKET ECONOMICS WITHIN THE NEVADA MODEL

After garnering revenue, sports book operators must account for operating costs, taxes, and other items before realizing any profit.

OPERATIONAL COSTS

In Nevada, the majority of a sports book's revenue is utilized to service operating costs. The operational costs involved in running a sports book vary depending on the state's laws and the types of sports betting allowed.

For a land-based sports book, an operation's largest expense is often payroll. This expense can be mitigated due to an operation's mix and use of online, mobile, and land-based offerings and the distribution of bets placed via kiosk, online, and over the counter. The marketing and advertising expenses incurred by sports books are also often considerable. These expenses can range from 6.0 to 7.5 percent of revenue. Other expenses incurred by sports books include but are not limited to data expenses, system related expenses, general & administrative expenses, utilities, and lease payments. All of these expenses ensure that the integrity of each game is maintained through strict compliance procedures. On average, a typical sports book's total operating costs account for approximately 48.8 percent of revenue or 2.4 percent of handle. This assumes that the book operates both land-based operations and its bettors can place bets online as well, as is experienced in Nevada.



TAXATION

In Nevada, the regulatory framework has a straightforward tax regime. The state imposes a 6.75 percent tax on gross gaming win (“GGW Tax”). In addition to the state tax, a federal excise tax is imposed which is based on a quarter of every penny wagered. Assuming a five percent hold, this federal tax equates to five percent of revenue. The resulting effective tax rate on sports books in the State of Nevada is approximately 12 percent of revenue.

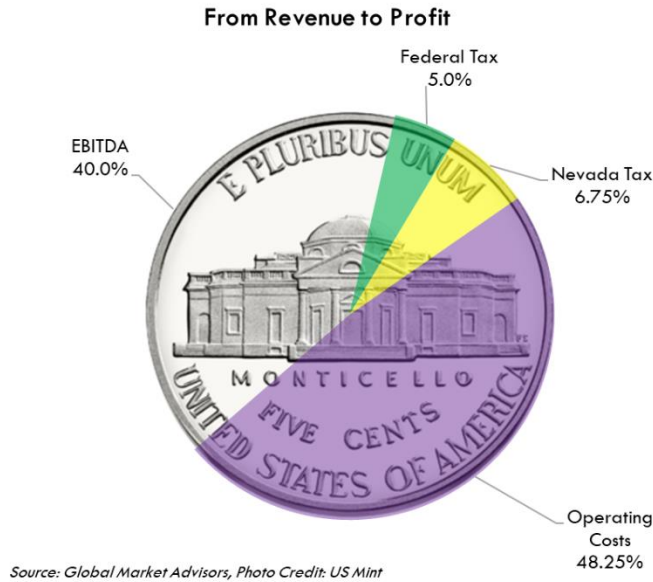
PROFIT MARGINS

After operational expenses, state taxes, and the federal tax, the sports books in Nevada are still able to produce positive levels of profit albeit at thin margins. This modest tax environment allows sports books to appropriately adjust their operations and business strategies to grow revenue and profit, allowing for a greater portion of revenue to flow to the State of Nevada. With this tax model, sports books are still able to adjust marketing campaigns and offer more competitive lines to attract bettors. Any additional fees or taxes would have a detrimental impact on the sports book’s ability to compete against illegal and other legal markets.

Sports book operators generally retain approximately 40 percent of revenue (or two percent of handle) as EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization). However, larger operations, which successfully generate a substantial amount of online wagering, could achieve larger profit margins on revenue. In Nevada, the more mobile the sports betting platform, the higher the margin. From this EBITDA, operations must then outlay the necessary capital to build the sports book, fit out the sports book, buy or lease the land/ building where the book is located, and purchase the necessary computers and servers to effectively operate. In Las Vegas, the amount of revenue earned per square foot of a sports book is far less than the amount of revenue earned from slots and tables per square foot.

If a new jurisdiction were to allow full mobile wagering, including remote registration and in-game wagering, with a limited number of licenses, the jurisdiction could raise tax rates moderately to take advantage of increased profit margins. However, in jurisdictions where sports betting is limited to land-based operations, tax and licensing rates should be lowered to accommodate for reduced profit margins on revenue. Regardless, a state tax any higher than ten percent would make it very difficult for a sports betting operation to compete against illegal operators who do not pay anything in taxes and do not have the burden of paying for land based operations.





AN EVALUATION OF PROPOSED/ENACTED TAX RATES AND FEES BY STATE

As discussed in GMA’s Sports Betting White Paper from November 2017, sports betting in the United States is legally permitted in varying degrees in Nevada, Oregon, Montana, and Delaware. Nevada is currently the only state permitted to offer single-game betting on college and professional sports through licensed bookmakers. As such, other states are currently evaluating what regulatory framework they should employ if sports betting is legalized. Some of these states have relied on regulatory models from other jurisdictions in drafting regulations, while other states have developed entirely new models. The following section evaluates how these proposed models work with or do not work with sports betting economics.

WEST VIRGINIA MODEL

The State of West Virginia followed Nevada’s lead in developing a straightforward taxation schedule. The five existing gaming facilities in West Virginia, including The Casino Club at The Greenbrier, Hollywood Casino at Charles Town Races, Mardi Gras Casino and Resort, Mountaineer Casino, Racetrack and Resort, and Wheeling Island Hotel-Casino-Racetrack would be allowed to offer sports betting for a five-year, \$100,000 licensing fee, renewable at the end of each licensing period. Additionally, gross gaming revenues would be taxed at a rate of 10 percent. This modest taxation rate would allow for the creation of a healthy market, sustainable and attractive tax revenue figures, and still provide desirable profit margins to the operator.

The State of West Virginia put itself ahead of the curve when it ordered a study bill last year to examine the best methods and revenue potential for sports betting with the potential repeal of PASPA. The West Virginia Lottery, which will oversee sporting betting in the state, has stated



that they could be ready 90 days after a decision by SCOTUS. West Virginia did not include an “integrity” fee desired by the leagues in its legislation, which was enacted in March 2018. The Governor has suggested that there could be a special session on the enacted law to discuss the additional fee issue if PASPA is overturned.

PENNSYLVANIA MODEL

New legislation was developed for the State of Pennsylvania. The state imposed a 36 percent tax on gross gaming revenue, a 34 percent tax rate by the state and a 2 percent tax for the local share assessment. This tax rate will prevent operators from entering the market as it would be nearly impossible for a sports book to produce sustainable levels of profit in this high tax environment. This is largely due to the fact that other nearby states and illegal books would be able to offer more competitive bets, odds, and marketing strategies to capture available revenue from the market. In addition, the legislation requires a onetime licensing fee of \$10 million per licensee. As the sizeable tax rate would leave the operators with little to no EBITDA, the required level of investment to enter the market and likely return rates would make investment in the market unjustifiable.

MODELS CONTEMPLATED BY OTHER STATES

There are several other states that have formulated pieces of legislation that vary in their proposed tax rates, whether they include a royalty fee that would distribute a portion of handle to the professional leagues, and where sports betting will be available to potential customers within their respective states (e.g. mobile, online, and land-based). There are currently over a dozen states that are actively undergoing legislative discussions to ready themselves should PASPA be overturned.

The State of Iowa is currently reviewing sports betting legislation. The state is thought to be the next state to pass sports betting legislation should the federal ban be lifted. Iowa adopted a tiered taxation schedule. The first one million dollars will be taxed at a five percent rate, growing to 10 percent for gross gaming revenues from one million to three million dollars. Gross gaming revenues exceeding three million dollars would incur a 22 percent tax. This tax structure is more reasonable than the Pennsylvania model as blended tax rates would be well below 36 percent. However, the blended tax rate observed by most operators would still hamper their ability to offer a competitive product that produces the largest potential amount of taxable revenue to the State of Iowa.

Connecticut continues to debate the sports betting issue and has held several hearings to debate these issues as well as other gaming related issues in this session of the General Assembly. The most recent bill would impose a 15 percent tax on sports wagering gross revenue. Connecticut has been one of many states that has debated the “integrity” fee that is sought after by the



professional leagues. In a recent hearing, several members of the legislature’s public safety and security committee questioned the need for an “integrity” fee by the leagues. The most recent version of sports betting legislation offers the leagues a 0.25 percent fee on all wagers placed on sporting events. This appears to be the leagues latest attempt at a revenue grab. While this figure is lower from the originally shopped amount of one percent of handle in states including Connecticut, New York, Illinois, and others, it still would be equivalent to a five percent royalty on revenue that would cut into the operability of sports books and further facilitate the ability for illegal books to succeed.

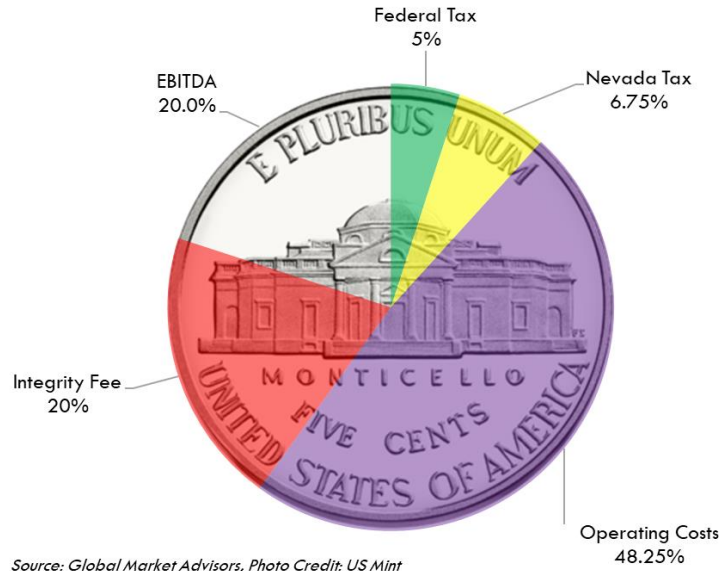
AN EVALUATION OF THE INTEGRITY (ROYALTY) FEE

Several professional sports leagues have proposed that they should receive an integrity fee (equivalent to one percent of handle) should sports betting be legalized. First and foremost, there is not an integrity fee paid to any league in the existing market of Nevada today. The integrity of the game is monitored by operating sports books to ensure that games are fair and held to a high standard. Nevada sports books over the years have been the first to catch any degradation of integrity that may exist in a contest(s).

While one percent of handle may seem like a marginal amount, it is the equivalent of a 20 percent fee on revenue. To illustrate the impact of this fee on sports book operations, the Nevada model was utilized as they tax sports books at a reasonable rate that allows the books to still be profitable. As the average sports book operator in Nevada maintains 40 percent of revenue as EBITDA, a 20 percent fee on revenue would leave the operator with only a 20 percent EBITDA margin. If the effective tax rate on sports betting operations was increased by 20 percent, it would make sports betting operations in any state unfeasible. Ironically, the enactment of an integrity fee of this level would only further facilitate the ability for illegal books to remain in operation, which is unlikely to increase the integrity of the games.



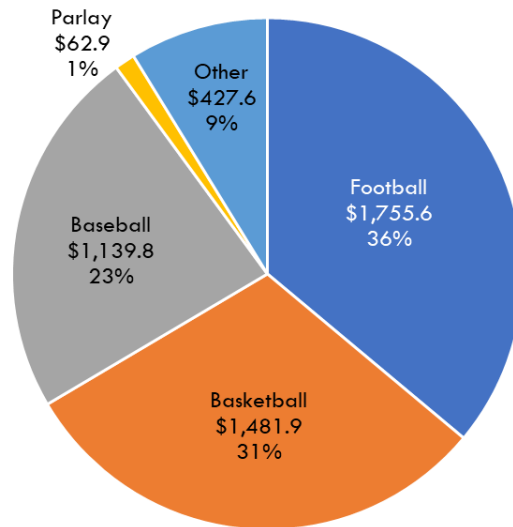
Impact of Integrity Fee



SHOULD ALL SPORTS AND LEAGUES RECEIVE AN EQUAL SHARE OF AN “INTEGRITY” FEE?

In any sports betting market, all leagues, events, and sports are not equally attractive in the eyes of the bettor. In the Nevada market in 2017, wagering on football and basketball accounted for 67 percent of all handle generated in Nevada. Baseball generated approximately 23 percent of handle and other sports accounted for only nine percent of handle in that year.

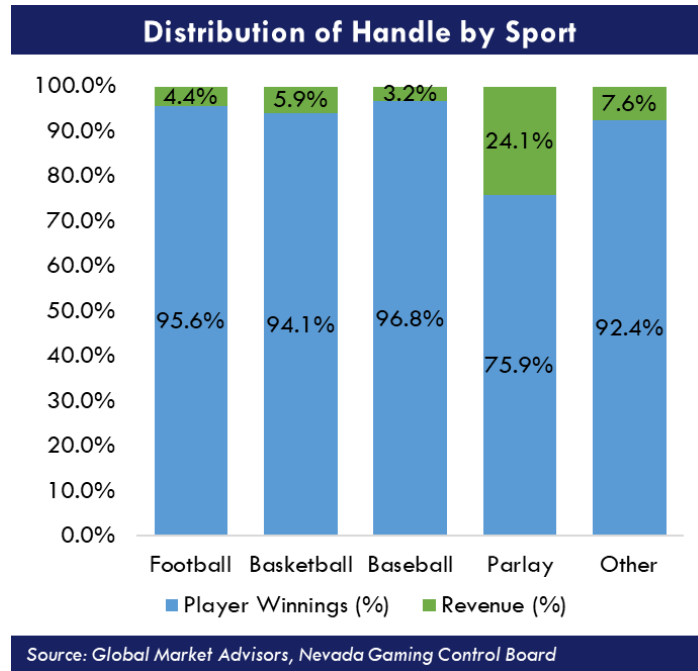
Nevada Sports Book Handle by Sport, 2017 (\$M)



Source: UNLV Center for Gaming Research, GMA



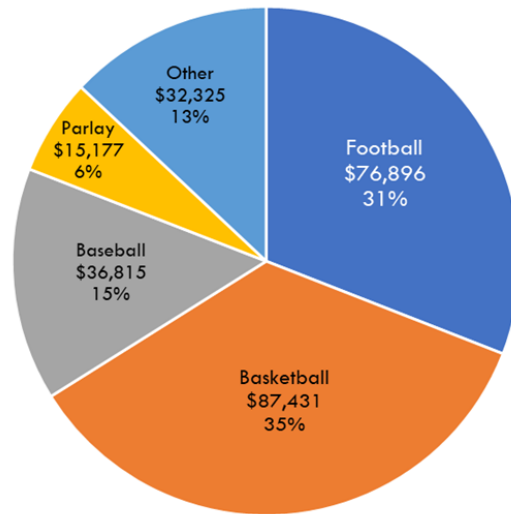
Additionally, sports books garner a different percentage of handle as revenue from each sport. As an example, handle generated from baseball produced a much smaller level of revenue (3.2 percent of handle) than football (4.4 percent of handle) and basketball (5.9 percent of handle) in 2017.



Wagers on football generated approximately 31 percent of Nevada’s sports book revenue in 2017, even though it generated approximately 36 percent of handle in that year. Basketball generated 35 percent of Nevada’s sports book revenue in 2017, despite only accounting for 31% of handle in that year.



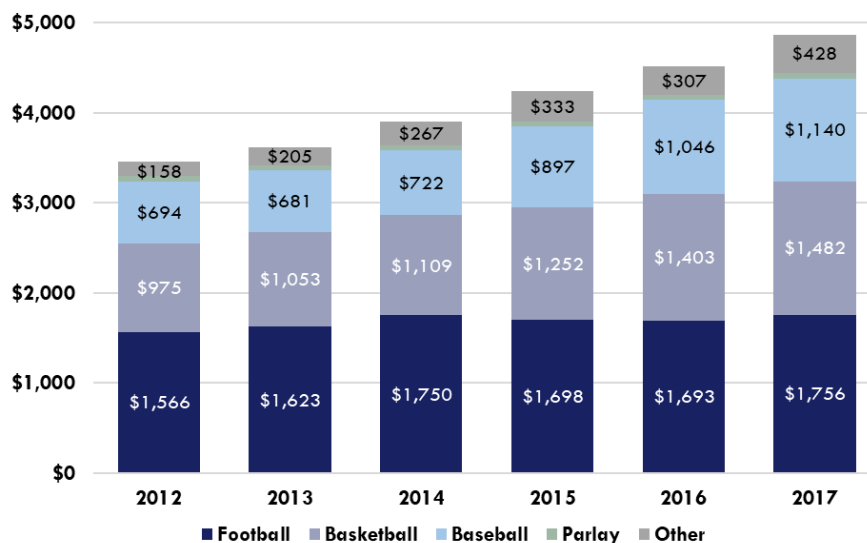
Nevada Sports Book Revenue by Sport, 2017 (\$'000)



Source: UNLV Center for Gaming Research, GMA

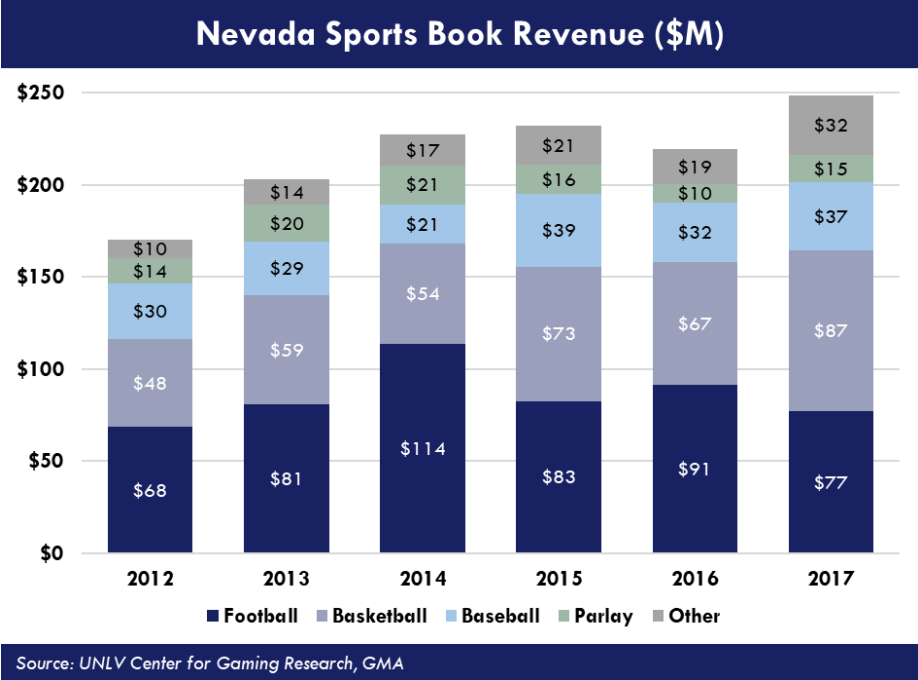
While the revenue for sports betting continues to increase collectively in the State of Nevada, sports betting continues to make up a small percentage (2.5%) of the total gaming revenue for the state. Sports betting is as much of a driver for gaming and non-gaming revenue in food and beverage, hotel operations, and other property amenities as it is for the bottom line itself.

Nevada Sports Book Handle (\$M)



Source: UNLV Center for Gaming Research, GMA





While an “integrity” fee will never materialize in the state of Nevada, one could extrapolate its potential impact on the overall operations of a sports book and the money that it would generate to the professional leagues. Under the current desire to seek one percent of handle, the leagues would have acquired roughly \$50 million in revenue from Nevada based off the nearly \$5 billion that was wagered in 2017. This figure would have equated to nearly three quarters of the amount of tax revenue collected by the State of Nevada on sports betting in 2017.

Through testimony provided in various states, the sports leagues have also made it clear that they only seek the reward involved in sports betting and do not desire to take on any risk that may occur with games and contests. The most recent example occurred with the Super Bowl in Nevada where many of the books lost money on the overall event. If an “integrity” fee were put in place, not only would books lose money on the event they would owe an additional amount to the leagues as well.

NEVADA AS A FRAMEWORK

The State of Nevada has served as a regulatory model for gaming regulators contemplating the right framework for new jurisdictions around the world. Other U.S. States should look to the State of Nevada in crafting their own regulatory structure for sports betting. Specifically, they should evaluate Regulation 22 of the Nevada Gaming Control Board Regulations, which solely deals with race books and sports pools, to understand the tax structure, licensing procedures, and other regulations created to bring integrity to contests.



One issue that states will have to resolve internally is deciding what regulatory board should oversee sports betting as not all states currently have a gaming control board and land-based gaming facilities. In some cases, this may mean that the Lottery Commission (where applicable) should oversee these activities. This approach has even been utilized by states with casinos, like the State of West Virginia, and is currently being considered by the State of Kansas. Each state will also need to decide what locations and platforms can take wagers, the suitability required to garner a license, anti-money laundering procedures, and complying with Title 31 (Bank Secrecy Act).

The level of convenience of wagering that is afforded to players will be key to the success of each market. The State of Nevada offers a great example of how a state can work with operators to make the market more accessible to patrons with the advance of online, mobile, and kiosk technology. These new wagering platforms have evolved over time as geo-location technology has improved from the “wager pager” to the PC to mobile phones (with the assistance of geo-fencing). It will be important for each jurisdiction to consider offering a multitude of wagering options to make their sports betting product more competitive with other legal and illegal offerings. Each state can utilize the State of Nevada as a guide in deciding how to allow for items like initial registration.

The State of Nevada continues to enhance its model by studying other jurisdictions in Europe. As an example, the State of Nevada recently allowed in game play, which has been offered in jurisdictions in Europe for quite some time. While this type of play is still more prevalent in Europe, stakeholders in Nevada have realized its ability to attract new market segments, including a younger group of patrons. The State of Nevada formulated a way to introduce this new product while continuing to conduct the games and contests with the highest level of integrity. They have also expanded the offerings allowed at sports books beyond traditional games to include events such as the Heisman Trophy, NFL Draft, and other sports including esports and the Olympics.

To successfully compete against the illegal market, states will have to offer a reasonable tax regime that allows operators to have some margin of operational success. By bringing in quality operators that monitor games and contests, as the State of Nevada has done for decades, the integrity of the game can be maintained and ensured. Scandals like the point shaving contest that occurred in the 1990s at Arizona State and the referee betting scandal that occurred in the NBA in 2007 were discovered by Nevada sports books and their effective monitoring of games.

The State of Nevada has demonstrated a path to successful sports betting implementation through strict regulation. Integrity exists in the games due to proper regulation and not through a money play by sports leagues. The sports leagues will benefit from the expansion of sports betting due to the increase in viewership and interest that stems from the influx of new sports betting participants should PASPA be overturned.



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