



MARKET AND POLICY ANALYSIS:

Legal Sports Betting in Puerto Rico

Prepared for Puerto Rico Fiscal Agency and Financial Advisory Authority

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Executive Summary

The Commonwealth of Puerto Rico, through the Fiscal Agency and Financial Advisory Authority (“AAFAF” or “Client”), retained Spectrum Gaming Group (“Spectrum,” “we” or “our”) to undertake a study that (a) projects the revenue potential of legal sports betting and (b) provides key insights into the policy and regulatory considerations that are critical when developing sports betting legislation.

A. Projections and Findings

Spectrum estimates that full sport betting in Puerto Rico could generate between \$44 million and \$62 million of gross gaming revenue annually. This projection encompasses both the retail (physical location) and digital (internet/mobile) components.

Projected sports betting gross gaming revenue for Puerto Rico

Puerto Rico Demographics		
Total Population (million)	3.2	
Adult Population (million)	2.6	
Average Household Income	\$19,775	
Gross Gaming Revenue Estimate	Low	High
GGR/Adult	\$17	\$24
Total GGR (million)	\$44	\$62
Retail (million)	\$15	\$21
Digital (million)	\$29	\$41

Source: Spectrum Gaming Group, US Census Bureau

The high end of Spectrum’s estimated range, at \$62 million, is achievable, in part because we have developed conservative, relatively low estimates for any retail offering.

Assumptions for retail sports betting include offering it at casinos, a racetrack, densely populated and touristic areas (via self-service betting terminals, or “SSBTs”) and other retail outlets such as former cockfighting venues and off-track betting venues. Our estimates are that retail would account for approximately one-third of sports-betting GGR. Notably, we can anticipate that the widespread availability of retail sports betting could lead to revenues that exceed that conservative estimate.

Results in US states – all of which limit retail sports betting to casinos and racetracks – show that sports betting does not cannibalize casino revenue, but rather has proven to be complementary. Major gaming companies with properties in Mississippi, New Jersey and West Virginia report significant increases in gaming and non-gaming revenues since the introduction of sports betting at their casinos in those states. In Las Vegas, the effects of sports betting are more pronounced during major events such as the Super Bowl and NCAA Final Four, when hotel-room and food and beverage revenues spike.

Casinos can ensure that they capitalize on sports betting by linking it to their existing player loyalty programs, as well as by creating special rooms or areas for their sportsbooks – spaces that would include multiple big-screen television monitors showing different live sports; large-format digital boards displaying the latest odds and game results; comfortable, lounge-style seating; and food and beverage service that may include table or seat service. The idea is to provide a special, enticing and sociable

atmosphere for sports bettors that would encourage them to not only visit the casino just to place a wager but to stay for the duration of a sports contest and spend in other areas of the property.

B. Policy Insight

For the purposes of our analysis, Spectrum assumed that Puerto Rico would have a highly competitive tax rate – 15 percent or lower – that would allow its sports betting operators to offer the most attractive options to bettors. Lower rates would not materially improve the performance of, or participation in, sports betting and would only serve to reduce fiscal receipts to the Commonwealth. On the other hand, a tax rate higher than this range is likely to result in worse odds and fewer promotions for bettors, thus making the activity less attractive for players – while potentially not offering a sufficiently attractive alternative to the illegal sports-betting market.

Critical decisions will need to be made regarding the scope and locations for authorized sports betting and the regulatory agency that will oversee sports betting operations. One alternative with respect to the locations is to limit, at least initially, sports betting to the licensed casinos and the racetrack. Another option is to allow sport betting at venues apart from the casinos.

Spectrum notes that there is no precedent among the newly active US sports betting states for a broad rollout of legalized sports betting; each is taking similarly careful, stepped approach by limiting sports betting to the licensed casinos and, in many cases, racetracks. All seven states with state-regulated sports wagering at this time have each tasked their respective casino regulators with the responsibility of regulating sports wagering.

As discussed herein, there is considerable merit in having a single regulatory agency for sports betting. The regulatory agency selected must be entrusted with broad oversight responsibilities to ensure public confidence and trust in the integrity of the regulatory process and sports betting operations.

Based on our understanding of the Government’s thinking, such distribution beyond casinos could include:

Digital: Offering sports betting in digital format would make the activity easily accessible to the vast majority of its citizens. A possible model consistent with the Commonwealth’s goals would be to permit each licensee to contract with a maximum number of defined retailers (such as off-track betting venues and cockfighting venues) for operation of satellite venues. Such a system would place the onus on casino licensees to ensure its satellite operations are in strict conformity with applicable regulations lest violations impact its plenary gaming license. Both casino licensee and (licensed) satellite retailer could derive a benefit from integrated brands. Another possible consideration would be similar to Delaware’s model, in which plenary sports wagering is offered only at casinos, with retail outlets able to offer versions limited in amount and scope.

- **Public zones:** Spectrum understands that the Government envisions certain heavily trafficked zones, such as the convention center area in San Juan, being available for sports betting. Such areas could be served by SSBTs and/or indoor-outdoor bars/restaurants that feature large-format odds boards and multiple television monitors featuring live sports.
- **Off-track-betting venues:** As these are sometimes small, even tiny, facilities, such venues may be served by SSBTs.

- **Cockfighting venues:** The venues for cockfighting, which is being outlawed, could be repurposed as designated sportsbooks, perhaps subject to minimum investment, employment and/or food and beverage service requirements. Such facilities, however, would compete against sportsbooks within the casinos, as they would presumably provide a similar sociable, entertaining experience.

With respect to any retail option, SSBTs are an attractive component. For novice bettors especially, such unmanned terminals remove the uneasiness of acknowledging to a human clerk that one is unfamiliar with how to place a bet. Spectrum thus believes SSBTs to be a viable and valuable potential channel for sports betting, located within both existing, and any new, retailer outlets.

Sports wagering brings complexities not found in traditional land-based casino gaming, including but not limited to dynamic betting lines (or odds), the necessity for real-time geolocation confirmation to prevent extra-jurisdictional mobile or online wagering, and ensuring electronic transactions for wager placement and payment are secure, auditable, and address federal Bank Secrecy Act Know Your Customer mandates. Such matters must be addressed in any enabling legislation and the ensuing regulations.

In terms of determining the qualifiers for sports betting applicants, the same rules governing casino gaming licensees in Puerto Rico should extend to the sports betting operators and the other entities participating in the sports betting operations.

Spectrum believes that, with respect to sports betting service providers, Puerto Rico should strongly consider accepting licensing by another gaming jurisdiction that has been determined by regulators to adhere to similar licensing requirements as evidence the applicant satisfies the sports betting service provider licensing requirements. We note that West Virginia successfully implemented a similar licensing provision.

There are three broad sports-betting operating model options available to an operator or jurisdiction seeking to offer sports betting to consumers, with differing risk profiles. They include:

- **White Label:** Operating model in which the client provides the marketing and, typically, an existing database of consumers, but the entire sportsbook function and supporting services is provided, and managed by, a licensed third-party. Risk is usually borne entirely by the third party.
- **Managed Services:** Operating model in which the client provides marketing and manages the resultant data base of consumers, but a wide range of operational functions, such as trading, risk-management, customer support and management reporting is provided by a licensed third party. Risk is typically shared between the parties.
- **In-House:** Operating model where the client provides the marketing, manages the database of consumers, and operates the entire sports-book function itself, using licensed third-parties for selected support activities. Risk is entirely borne by the client.

Deciding which of these operating models is optimal for the Commonwealth will depend on a variety of individual circumstances, but essentially it will depend upon the outcome of a critical assessment of two key criteria: control and risk vs. reward.

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Introduction

On May 14, 2018, the United States Supreme Court struck down the Professional and Amateur Sports Act (“PASPA”), a federal law that banned sports betting in most states. This decision enabled states to decide whether to legalize sports betting. According to the American Gaming Association (“AGA”) approximately \$150 billion is wagered illegally on sports in the US, generating approximately \$7.5 billion to \$9 billion of gross gaming revenue (“GGR”).¹ Given the size of the illegal market estimates, we believe the legal regulated market will be substantial. It is well known that sports betting has taken place illegally for many years and has historically been controlled by organized crime. States and the regulated gaming industry, led by the AGA, have cited the desire to remove the illegal elements as one reason for legalizing sports betting at the state level.

As the government of Puerto Rico already offers other forms of legalized gambling – including casino games, lottery, and pari-mutuel wagering – the Commonwealth through the Fiscal Agency and Financial Advisory Authority (“AAFAF” or “Client”) seeks to understand the revenue potential of legal sports betting and to understand the policy and regulatory considerations that are critical when developing sports betting legislation. As such, on March 1, 2019, it retained Spectrum Gaming Group (“Spectrum,” “we” or “our”) to undertake this study.

In this chapter we make reference to certain terms that are relevant to sports betting, including:

- **Handle** – The total amount of money wagered
- **Hold percentage** – The percentage of money the bookmaker or house holds onto after all bets have been settled
- **Gross gaming revenue (“GGR”)** – The amount of money players wager minus the amount players win ($\text{Handle} \times \text{Hold}\% = \text{GGR}$)
- **Retail** – Betting in person at a physical location, such as a casino or other authorized facility
- **Digital** – Betting on sports via mobile devices or online

Several states were preparing for the repeal of PASPA and legalized sports betting in advance, with the intention of a summertime rollout. Seven states have commenced sports betting since the Supreme Court decision:

- Delaware
- Mississippi
- New Jersey
- New Mexico (at tribal casinos only)
- Pennsylvania
- Rhode Island
- West Virginia

¹ Gross gaming revenue is the amount wagered minus the winnings returned to players. Also termed “gross win.”

Another 20 states have proposed various forms of legislation pertaining to the legalization of sports betting, and we expect momentum to continue in 2019.

Per our discussion with the Client and other representatives of the Puerto Rico Government, Spectrum's sports betting revenue estimates assume that sports betting would be offered in the commonwealth's 10 casinos, at Hipódromo Camarero near San Juan, in half of the island's roughly 450 off-track-betting venues ("OTBs") and half of the 70 cockfighting venues.

Cockfighting has been outlawed by Congress and the Commonwealth views sports betting as an alternative use for these locations. The Commonwealth is also considering making sports betting available in districts where masses of people tend to congregate, such as the Condado Beach area, the convention center area, near San Juan, and possibly a facility in Ponce. All of these venues collectively comprise what the retail market for sports betting in Puerto Rico. Separately, we developed estimates for digital sports betting.

To estimate potential sports betting revenue in Puerto Rico, we reviewed the following data for insight:

- Sports betting data from the top 10 markets in Europe, where sports betting is long established
- Sports betting performance metrics from US states
- A review of the illegal sports betting estimates for the US market

We relied on the aforementioned data points to project sports betting GGR per adult across the total United States. We related these estimates to Puerto Rico, by adjusting for various factors including adult population and household income.

I. Analysis of Other Markets

A. Europe

Sports betting in many large European countries has been a regulated activity for more than a decade. We analyzed the largest mature markets for insight into the potential size of the US market and, in turn, state-by-state potential. Additionally, many of these markets established digital betting when internet usage became more widespread during the late 2000s. The impact and size of the US business is likely to grow significantly faster given that markets are developing during a much more advanced digital environment.

For purposes of this analysis we reviewed the top 10 sports betting markets by gross gaming revenue (“GGR”) to draw insight. The table below illustrates various metrics we will apply throughout this section to derive insight into the size of the US market, for both retail and digital sports betting.

Figure 1: Top betting markets in Europe, 2017

Jurisdiction	Sports Betting GGR (M)			Land-Based Casino GGR (M)	GDP (\$B)	Adult Pop. (M)	Land-based GGR/GDP (%)	Tax Rate Ret./Dig.	GDP	Per Adult Land-Based Casino GGR	Annual Sports Betting Per Adult	Sports-Betting Per Adult Adjusted for GDP ⁽²⁾
	Retail	Digital	Total									
United Kingdom	\$1,026	\$2,089	\$3,115	\$5,835	\$2,659	55	0.22%	15%	\$48,472	\$106	\$57	\$84
France	597	550	1,147	2,661	2,661	54	0.10%	8.5%	\$49,481	49	\$21	\$31
Italy	1,178	663	1,840	13,022	1,993	52	0.65%	18%/22%	\$38,430	251	\$35	\$66
Germany	93	1,290	1,383	8,966	3,805	73	0.24%	20%	\$52,289	123	\$19	\$26
Sweden	110	624	734	295	514	8	0.06%	NA ⁽¹⁾	\$62,999	36	\$90	\$102
Spain	352	448	800	4,072	\$1,351	38	0.30%	25%	\$35,156	106	\$21	\$42
Greece	397	207	604	361	206	10	0.18%	35%	\$21,657	38	\$63	\$209
Denmark	126	255	381	319	334	5	0.10%	20%	\$72,157	69	\$82	\$81
Belgium	195	168	363	573	\$508	9	0.11%	11%	\$55,436	63	\$40	\$51
Ireland	125	161	287	427	341	4	0.13%	15%	\$78,774	99	\$66	\$60
United States	NA	NA	NA	73,700	18,227	255	0.40%	NA	\$71,351	289		
						Low	0.06%	8.5%	\$35,156	\$36	\$19	\$26
						Median	0.17%	15.0%	\$52,289	\$99	\$40	\$60
						High	0.65%	25.0%	\$78,774	\$251	\$90	\$82 ⁽²⁾

(1) Adjusted for GDP/Capita using US as the index
 (2) Greece and Sweden are excluded as "outliers"

Source: H2 Gambling Capital, Spectrum Gaming Group

The sports betting landscape in Europe has similar characteristics to the existing and ongoing rollout across US states. The top 10 European markets have tax rates ranging from 8.5 percent in France to as high as 35 percent in Greece. Comparably, the six newly active US sports betting states have tax rates from 8.5 percent to 61 percent. Proposed legislation across approximately 20 states has tax rates ranging between 6.25 percent and 30 percent.²

A review of the land-based gaming industry in the United States compared to European markets suggests that US gamblers have a higher propensity to gamble, as measured by the ratio of land-based GGR to gross domestic product (“GDP”). The median GGR/GDP percentage for Europe is 0.17 percent and the US ratio is 0.40 percent, more than double that of Europe. Land-based GGR for the US was about \$74 billion (both commercial gaming and Native American)³ in 2017, or \$289 per US adult. Higher propensity to gamble in the United States can be attributed to the widespread availability of land-based gaming at

² Spectrum Gaming Capital. <http://www.spectrumgamingcapital.com/us-sports-betting/>

³ State Gaming Commissions, National Indian Gaming Commission.

about 1,000 casinos of all types in 42 states. By comparison, the largest land-based casino market in Europe is in the United Kingdom with about 150 land-based casinos serving 54 million adults.⁴ We note that the United Kingdom has approximately 8,000 betting shops, but compared to the land-based casinos throughout the United States these are much smaller and less attractive entertainment venues. When analyzing land-based casino spending in the United States one key conclusion is that if gambling, and in turn sports betting, is made widely available, the spend/adult is likely to outpace European markets.

As adjusted for GDP per adult, the top 10 sports betting markets in Europe generate a wide range of sports betting GGR per adult – between \$26 and \$82. That would translate to a very wide range of \$6.6 billion to \$20.9 billion of sports betting GGR for all of the United States (approximately 255 million adults). Given the higher propensity to gamble in the United States, we believe sports betting GGR per adult will be at the higher end of the range, at least \$50-\$70 per US adult.

We note that both Sweden and Greece are generating significantly higher sports betting GGR per adult at \$102 and \$209, respectively; however we classify these two countries as outliers because the land-based gaming options there are limited. Greece has only nine land-based casinos serving a population of 10 million; Sweden has only four serving a population of 8 million. Sports betting has become a popular alternative to casino gaming in these two countries.

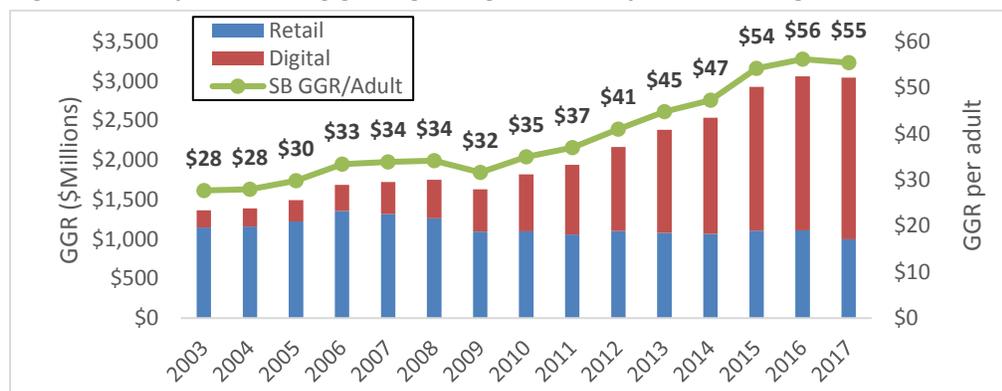
1. United Kingdom Provides Deeper Insight

The United Kingdom is the largest sports betting market in Europe and is considered the most comparable European jurisdiction to the United States. The highly regulated UK market bears similar overall characteristics to the US market. The UK Gambling Commission has encouraged a free market to develop, leading to a highly competitive environment. Consumer betting choice is wide, and competition has prompted innovations such as in-play betting and cash-out functionality.⁵ The UK Gambling Commission has strong powers applicable when licensees transgress rules and regulations, such that there is virtually no illegal betting market. Lastly, there is more detailed and publicly available information from which to gain insight. Many of the largest operators in the United Kingdom are either active in the United States or have plans to be, including: William Hill, BetStars/SkyBet, GVC, Bet365, and Paddy Power Betfair, among others.

⁴ H2 Gambling Capital.

⁵ Cash-out functionality allows players to either lock in a profit or mitigate a loss on an in-play bet.

Figure 2: UK sports betting gross gaming revenue by retail and digital, 2003-2017



Source: H2 Gambling Capital

Figure 2 above illustrates GGR from retail and digital as well as GGR per adult from 2003-2017. GGR/adult peaked at \$56 in 2016. From 2003-2009, digital betting accounted for just about 20 percent of total GGR. Since 2010, however, GGR from digital betting has grown significantly such that it now accounts for two-thirds of total sports betting GGR. The introduction and proliferation of mobile devices enabled the digital sports betting market to outpace the retail market. In US states where digital betting will be legalized, it is likely that digital will account for at least two-thirds of total GGR and could account for an even higher share.

B. Analysis of Active US States

Six states offer sports betting as an added amenity to their existing gaming industry. Delaware and New Jersey were the first states to roll-out, commencing in June 2018. Mississippi was the next state to activate, followed by West Virginia, Rhode Island and Pennsylvania.⁶ Each state operates with differing business models and under varying tax rates. We view adult population size, household income and number of local professional sports teams as the key influencing characteristics to estimate the potential size of the sports betting industry in each state. As Figure 3 shows, state tax rates in active states range from 8.5 percent to as high as 61 percent. *It is important to note that all US states are also required to pay a federal excise tax of 0.25 percent of sports betting handle, which is equivalent to 5 percent of GGR.*

Figure 3: Summary of demographics, regulations and tax rates – newly active states

State	Adult Pop. (M)	Household Income	Modality	Start Date		Tax Rate	
				Retail	Digital	Retail	Digital
New Jersey	7.0	\$76,475	Retail & Digital	Jun-18	Aug-18	8.5%	13%
Delaware	0.8	\$63,036	Retail Only	Jun-18	NA	61%	
Mississippi	2.3	\$42,009	Retail Only	Aug-18	NA	12%	
West Virginia	1.4	\$44,061	Retail & Digital	Sep-18	Jan-19	10%	10%
Rhode Island	0.9	\$61,043	Retail Only	Nov-18	NA	51%	
Pennsylvania	10.1	\$56,951	Retail & Digital	Nov-18	TBD	36%	36%

Source: State gaming commissions

⁶ Excludes New Mexico, where only tribal casinos offer retail sports betting; results are not disclosed.

The jurisdictional tax rate on sports betting GGR can have significant influence on sports betting volumes, although this is difficult to quantify – especially at such an early stage in the expansion of US sports betting:

- Sports betting operators in high-tax-rate jurisdictions are less likely to offer players higher odds/higher winning percentages and are less likely to offer players attractive promotions; conversely,
- Low-tax-rate environments do allow for more attractive odds/higher winning percentages and more aggressive promotional activity, which attracts players.

A review of Nevada, which is the longest-running active sports betting state, shows that football and basketball (college and professional) drive the most betting volume and overall activity. Football accounts for 42 percent of the handle and basketball accounts for 28 percent. Baseball is in third position at 22 percent, with parlay,⁷ hockey and other sports, such as tennis, accounting for the remaining 8 percent.⁸

The states that activated sports betting in time for the start of football season – early September – are performing very well. As illustrated in Figure 4, New Jersey and Delaware are already generating \$25 and \$27 of GGR per adult, or half the low range of our estimates for the United States as a whole. Mississippi and West Virginia are generating \$16 and \$14 per adult, which is likely due to their later start date. A review of handle, which is a measure of overall betting volume, shows that once football season started, handle either doubled or tripled. We believe these betting volumes will continue to grow through at least March during the “March Madness” college basketball tournament. After reviewing and analyzing these numbers, we remain confident in our estimate of \$50 to \$70 GGR per adult, which might even be conservative considering the market is in its very early stages.

⁷ A parlay is a single bet that links together two or more individual wagers and is dependent of all the wagers winning together.

⁸ Source: *Nevada Gaming Control Board-Revenue Reports*. <https://gaming.nv.gov/index.aspx?page=149>

Figure 4: Sports betting performance for newly active states

	June	July	Aug	Sept	Oct	Nov	Dec	Jan	YTD
New Jersey (7M Adults)									
Retail	3.5	3.8	6.1	11.4	2.8	6.8	6.2	3.2	43.8
Mobile	0.0	0.0	3.1	12.6	8.8	14.4	15.5	15.5	70.0
Total GGR(\$M)	3.5	3.8	9.2	24.0	11.7	21.2	21.7	18.8	113.8
Handle (\$M)	16.4	40.7	95.6	183.9	260.7	330.7	319.2	385.3	1,632.6
Hold %	21%	9%	10%	13%	4%	6%	7%	5%	7%
GGR/Adult, annualized	\$11	\$6	\$15	\$42	\$20	\$37	\$36	\$31	\$25
Delaware (0.8M Adults)									
Total GGR(\$M)	1.0	0.5	0.8	3.6	0.5	1.3	2.5	1.6	11.8
Handle (\$M)	7.0	8.2	7.7	16.8	14.7	16.4	16.1	11.9	98.9
Hold %	14%	6%	10%	21%	3%	8%	15%	14%	12%
GGR/Adult, annualized	\$27	\$8	\$16	\$56	\$10	\$25	\$38	\$32	\$27
Mississippi (2.3M Adults)									
Total GGR(\$M)			0.6	5.5	1.2	1.7	6.2	2.8	18.0
Handle (\$M)			7.7	31.8	32.8	44.5	40.8	35.2	192.8
Hold %			8%	17%	4%	4%	15%	8%	9%
GGR/Adult, annualized			\$3	\$29	\$6	\$9	\$33	\$15	\$16
West Virginia (1.4M Adults)									
Total GGR(\$M)				2.1	1.0	0.6	2.8	1.7	8.3
Handle (\$M)				7.3	9.7	12.6	16.8	22.4	68.8
Hold %				29%	10%	5%	17%	8%	12%
GGR/Adult, annualized				\$19	\$8	\$6	\$23	\$15	\$14
Pennsylvania (10M Adults)									
Total GGR(\$M)						\$0.5	\$2.0	\$1.2	\$3.8
Handle (\$M)						\$1.4	\$16.2	\$25.2	\$42.7
Hold %						36%	12%	5%	9%
GGR/Adult, annualized						\$1	\$2	\$1	\$1
Rhode Island (0.9M Adults)									
Total GGR(\$M)						\$0.1	\$1.0		\$1
Handle (\$M)						\$0.7	\$13.1		\$14
Hold %						11%	7%		7%
GGR/Adult, annualized						\$1	\$13		\$7

Source: State gaming, lottery commissions

1. Insight from New Jersey

The most insight on the impact of sports betting can be derived from New Jersey because the state legalized both retail and digital betting the earliest. Additionally, New Jersey's adult population is relatively high, at 7 million adults, and that number is augmented as a result of the large New York metropolitan population that can place bets when they physically cross the border into New Jersey. Also, household income is \$76,000, much higher than the US average of \$57,000. Therefore, despite the newness of the sports betting industry, New Jersey provides the most robust data at this early stage.

New Jersey legalized sports betting at the state's casinos and pari-mutuel racetracks, thereby enabling accessibility of retail sports betting throughout the state. New Jersey's casinos are all located in Atlantic City, which is easily accessible for residents of the southern part of the state, but a two-hour drive from the densely populated New York City and Northern New Jersey area.

By allowing sports betting at racetracks including the Meadowlands, which is in northern New Jersey, and Monmouth Park, which is more centrally located, more of the population could access retail sports betting. Figure 5 illustrates the market share results and impact of making retail sports betting

more accessible to more of the population. Through eight months of operations, the Meadowlands plus Monmouth Park generated 61 percent of retail GGR, while all eight Atlantic City casinos combined, only accounted for 38 percent. We expect that during the peak summer season, when the number of visitors to Atlantic City increases significantly, its share of retail GGR will increase. However, during the peak season for sports betting – fall and winter – retail locations in the middle and northern part of the state performed well. This suggests that accessibility and convenience of sports betting, just like casino gaming, has a direct impact on GGR results.

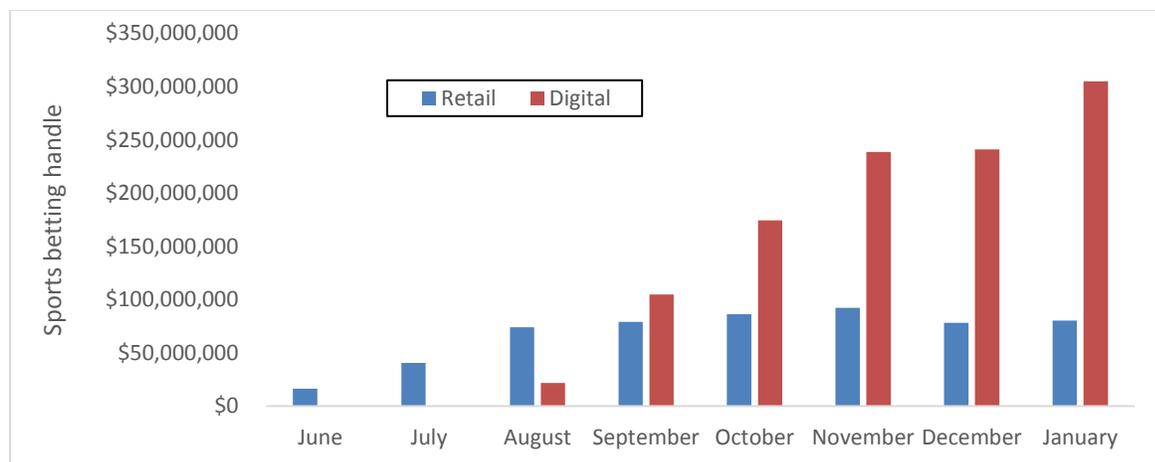
Figure 5: Retail sports betting gross gang revenue in New Jersey, June- January

(\$M)	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Total
Meadowlands	0.0	1.4	3.1	4.4	1.1	2.6	3.6	1.2	17.3
Monmouth Park	2.3	0.9	0.9	2.1	0.6	1.2	1.0	0.8	9.8
Atlantic City Casinos	<u>1.2</u>	<u>1.6</u>	<u>2.1</u>	<u>4.9</u>	<u>1.1</u>	<u>3.0</u>	<u>1.6</u>	<u>1.2</u>	<u>16.7</u>
Total Retail	3.5	3.8	6.1	11.4	2.8	6.8	6.2	3.2	43.8
Retail Share									
Meadowlands	0%	36%	51%	38%	39%	38%	58%	36%	39%
Monmouth Park	66%	22%	15%	19%	21%	17%	17%	26%	22%
Atlantic City Casinos	34%	42%	35%	43%	40%	45%	25%	38%	38%

Source: New Jersey Division of Gaming Enforcement

Although retail betting in New Jersey commenced in the middle of June, digital did not go live until August. Since its start, digital betting is continuing to outpace the growth of retail significantly. To date, retail has generated a total of \$550 million in wagers over eight months, and digital generated almost \$1.1 billion in just over six months. Since sports betting started, digital continues to account for an increasing share of GGR and through January accounted for 62 percent of total GGR in New Jersey. We believe across the US states that legalize digital betting, the outcome will be similar to what we are seeing in New Jersey (and Europe). Total New Jersey sports betting handle for retail and digital results are graphically illustrated in Figure 6 below.

Figure 6: Analysis of retail vs. digital sports betting handle in New Jersey

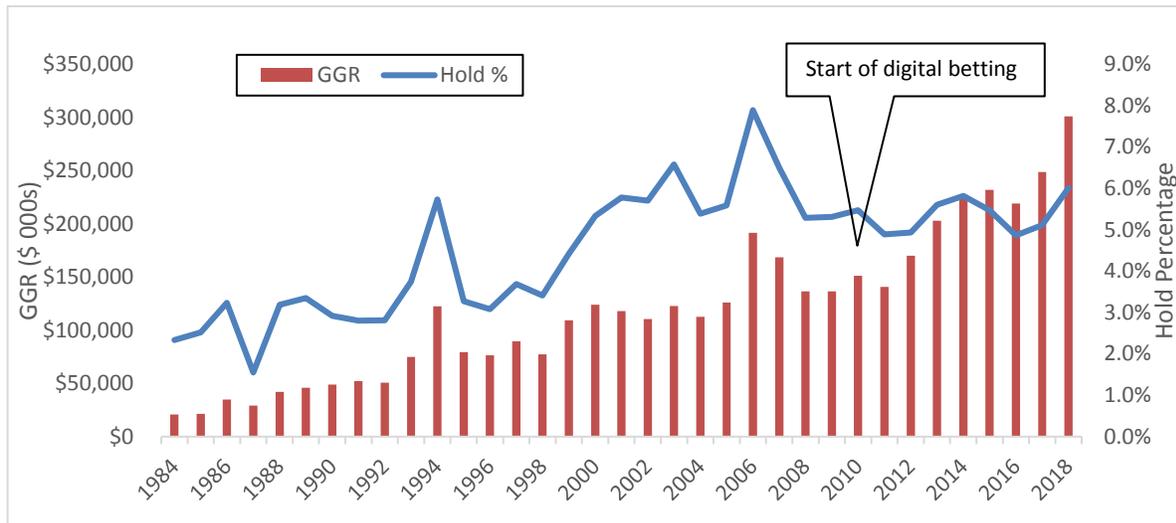


Source: New Jersey Division of Gaming Enforcement

2. Insight from Nevada

Although Nevada has offered sports betting for decades, it is a very small part of the state's overall gaming business, and most operators have made it clear that sports-betting largely serves as a marketing vehicle that can help attract interest in other forms of gaming and non-gaming attractions. In 2018, sports betting generated just \$300 million of GGR compared to statewide casino GGR of \$11.9 billion, or just 2.5 percent of the total. The business is small and there are wide fluctuations in hold percentage from year to year. As illustrated in Figure 7, hold percentage from 1984-2018 ranged from as low as 2.3 percent to as high as 7.9 percent. The variability in hold percentage is an indicator of how revenues from sports betting can fluctuate so significantly from year to year.

Figure 7: Nevada sports betting gross gaming revenue and hold percentage, 1984-2018



Source: Nevada Gaming Control Board

Another important insight from Nevada is the significant uptick in GGR following the introduction of digital betting in 2010. Over the five-year period from 2005-2009, sports betting GGR averaged \$150 million. Over the next five years, 2010-2014, sports betting GGR averaged \$180 million, an increase of 20 percent. From 2015-2018, sports betting GGR averaged \$250 million. We believe the most significant catalyst to this growth was the introduction of digital betting. Moreover, digital betting in Nevada is somewhat cumbersome because to create an account initially, one must visit a land-based casino – essentially defeating the purpose of mobile wagering. Despite this relative inconvenience, the impacts of digital betting are significant on overall sports betting GGR.

GGR per adult is very high in Nevada at \$130 per adult. However, we consider these results an outlier because Nevada is a destination market. Consider that Las Vegas generated 42 million visits, more than 18 times the resident population, in 2018, which is why sports betting GGR per adult is so high.

3. Impact of Daily Fantasy Sports in Sports Betting

The most prominent providers of digital betting in New Jersey are the leading daily fantasy sports (“DFS”) operators, DraftKings and FanDuel. Each DFS operator is new to the sports betting business, but

through their significant databases of sports enthusiasts who have “wagered” on sports,⁹ they have performed better than their casino competitors. Although not reported publicly, through Spectrum’s channel checks we estimate that DraftKings has a DFS database of more than 10 million users and FanDuel has more than 8 million users. Although these users consist of players across the United States, the results in New Jersey clearly reflect the strength of these two brands and the crossover between DFS and sports betting.

Figure 8 illustrates GGR performance of FanDuel, which operates using the Meadowlands license, and DraftKings, which operates using the Resorts Digital license.¹⁰ Combined, FanDuel and DraftKings are generating more than 80 percent of New Jersey’s statewide digital GGR through January. Both companies are targeting casino companies in prospective sports betting states to be their sports betting provider. DraftKings is operational in West Virginia and Mississippi, and FanDuel plans to enter the New York market when it goes online¹¹.

Figure 8: New Jersey gross gaming revenue via digital, June through January

Digital GGR - NJ (\$M)	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Total
Meadowlands (FanDuel)	0.0	0.0	0.0	2.9	2.4	4.4	5.5	5.9	21.1
Resorts Digital (DraftKings)	0.0	0.0	3.0	8.5	5.1	7.2	6.7	6.9	37.3
Others ¹	0.0	0.0	0.2	1.2	1.3	2.8	3.3	2.8	11.6
Total Digital	0.0	0.0	3.1	12.6	8.8	14.4	15.5	15.5	70.0
Digital Share									
Meadowlands (FanDuel)			0%	23%	27%	31%	36%	38%	30%
Resorts Digital (DraftKings)			95%	68%	58%	50%	43%	44%	53%
Others ¹			5%	10%	15%	20%	21%	18%	17%
Total			100%	100%	100%	100%	100%	100%	100%

Source: New Jersey Division of Gaming Enforcement. ¹ Atlantic City casinos plus Monmouth Park

The DFS companies might play an important role if Puerto Rico were to legalize sports betting. Their involvement might bode well for the Commonwealth, especially in terms of generating higher betting volumes.

C. Projected Tax Receipts for Active States

To estimate states’ sports betting GGR at stabilization, we applied the \$50 to \$70 per adult estimate across the United States and adjusted for each state’s level of household income. For example, average US household income is \$57,600, so for states that have household income above the US average, GGR per adult will be adjusted higher than \$50 to \$70 range, and vice versa. Next, we adjusted the GGR estimate for states that do not offer digital betting (Delaware, Mississippi and Rhode Island) by reducing GGR per adult by half. In a full-sports-betting scenario, we would assume digital accounts for two-thirds

⁹ Daily fantasy sports is a subset of fantasy sports, in which players compete against other (for real money) by building a team of pro athletes and earning points based on those athletes’ statistical performance.

¹⁰ In New Jersey, each land-based licensee (casinos or racetracks) is permitted to avail up to three digital skins to third-party operators.

¹¹ FanDuel partnered with Tioga Downs Casino Resort, which is in Nichols, NY.

of total GGR, however in cases where retail is the only sports betting option, we assume it would achieve 50 percent of our estimates. The results of our analysis are illustrated in the table below.

Figure 9: Projected sports betting GGR and tax revenue at stabilization, at \$50-\$70 per adult, newly active states

State	Population (M)		Household	GGR/Adult		Total GGR		Est. Tax
	Total	Adults	Income	Low	High	Low	High	Rev (mdpt.)
New Jersey	9.0	7.0	\$76,475	\$66	\$93	\$466	\$652	\$64
Delaware	1.0	0.8	\$63,036	\$27	\$38	\$21	\$29	\$15
Mississippi	3.0	2.3	\$42,009	\$18	\$26	\$41	\$58	\$6
West Virginia	1.8	1.4	\$44,061	\$38	\$53	\$55	\$77	\$7
Rhode Island	1.1	0.9	\$61,043	\$26	\$37	\$23	\$32	\$14
Pennsylvania	12.8	10.1	\$56,951	\$49	\$69	\$501	\$701	\$216
Total US Retail + Digital	325.7	252.1	\$57,652	\$50	\$70	\$12,605	\$17,647	

Source: Spectrum Gaming Group, US Census Bureau

D. Other Impacts Resulting from Legalized Sports Betting

Beyond the direct GGR, sports betting can introduce a new, younger demographic to casinos, a cohort that does not typically have a high propensity to gamble at traditional casino games. For sports gamblers who do so digitally, land-based casinos have the opportunity to incentivize players to visit the casino by offering complementary rooms or meals. Assuming these players are not existing customers, any revenue generated while at the casino will be incremental. Figure 10 illustrates our methodology for estimating incremental revenue via comping of sports bettors, using New Jersey as an example.

Figure 10: Illustration of casinos' incremental revenue via sports betting

Assumptions – New Jersey	
SB GGR/Adult	\$50
% of Total Adults that Bet	15%
% of Bettors that are New Gamers	50%
Casino Promotions Reinvestment Rate	20%
Land Based Capture Rate (New Gamers)	15%
Induced LB GGR	\$125
Induced LB Non-Gaming	\$100
Incremental Revenue Illustration	
NJ Adults	7,100,000
Total SB GGR	\$355,000,000
Number of Bettors	1,065,000
# of New Players	532,500
GGR/Player	\$333
Promotional Investment	\$67
Land Based Capture of New Gamers	79,875
Induced LB GGR - Total	\$9,984,375
Induced LB Non-Gaming-Total	\$7,987,500
Total Incremental Revenue	\$17,971,875
Incremental Revenue/Total SB GGR	5%

Source: Spectrum Gaming Group

There are more pronounced impacts during the major sporting events such as the Super Bowl and college basketball Final Four, during which room and food and beverage revenue tends to increase. We spoke with a major casino resort operator in Las Vegas who estimated food and beverage revenue

increases 10 percent to 12 percent and room revenue 10 percent to 15 percent¹² during those events. Another company that owns and operates regional casinos highlighted the positive impacts that retail sports betting can generate on Saturdays and Sundays during football season. Specifically, players who are accustomed to staying home to watch football games might instead prefer to go to the casino in order to place bets.¹³

E. Sports Betting Can Complement Casino Revenue

Major casino companies have recently commented during their fourth-quarter earnings conference calls on the impact that sports betting is having on their casinos. For the first full month of sports betting in West Virginia, Penn National Gaming said its Hollywood Casino at Charles Town Races experienced almost 10 percent growth in both table games and poker GGR compared to the prior period, suggesting that sports betting is bringing new players into the casino. Caesars Entertainment, which operates sports betting in New Jersey and Mississippi, believes that the introduction of retail sports betting resulted in an increase of between 10 percent and 20 percent of revenue across bars, restaurants and casino gaming.¹⁴

Although the impact of sports betting will vary across different states and jurisdictions, most of the prominent land-based casino operators are benefitting because sports betting is additive to the overall casino offering. We believe part of the reason that sports betting is complementary and not cannibalistic to casino gaming is that it represents a very different experience than casino gaming.

Most sports bets are placed before the sporting event begins and are largely dependent on the event outcome. This differs from casino gaming, in which patrons might sit in a casino and place multiple wagers continuously. There is also the element of prior knowledge, skill and interest in sports that is required for sports betting, whereas casino gaming requires no such prior knowledge or skill set. Because the two activities are so different, the player demographics are inherently different. Therefore, we believe that sports betting is likely to be more complementary, and less cannibalistic, to land-based casinos.

Casinos can ensure that they capitalize on sports betting by creating special rooms or areas for their sportsbooks – spaces that would include multiple big-screen television monitors showing different live sports; large-format digital boards displaying the latest odds and game results; comfortable, lounge-style seating; and food and beverage offerings that may include table or seat service. The idea is to provide a special, enticing and sociable atmosphere for sports bettors that would encourage them to not only visit the casino just to place a wager but to stay for the duration of a sports contest – or more than one. Such stays by the sports bettors would result in additional spending on food and beverage and, in many cases, additional spending on:

- Wagers on multiple sports contests

¹² As told to Spectrum Gaming Capital by Robert Goldstein, Chief Operating Officer of Las Vegas Sands.

¹³ As told to Spectrum Gaming Capital by Jacob Oberman, Senior Vice President of Business Development at MGM Resorts International.

¹⁴ Earnings commentary of Penn National and Caesars Entertainment for the fourth quarter of 2018.

- Table-games or slot play in the casino
- Overnight stays

Telsey Advisory Group said in a March 26, 2019, note to investors that the sportsbooks in Atlantic City casino properties drove significantly higher hotel room rates and non-gaming revenues due to the start of NCAA men’s basketball tournament:

We spent the first and second rounds of the NCAA tournament in Atlantic City last weekend (Thursday to Sunday). This was the first year with legal sports wagering outside of Nevada. In our opinion, Atlantic City was completely overwhelmed with the increased visitation for the supply of hotel rooms, restaurants, bars, table games, and sportsbook seats. Once again, it isn’t necessarily the handle that will come from the NCAA games. It is the fact that hotels were priced higher than summer weekends, every seat in restaurants was essentially full the entire weekend, and at night it was difficult to find an open table game. When Ocean Resort runs out of beer on Friday evening, we are guessing it had something to do with the crowd there for March Madness. We spoke to numerous groups of people who visited Las Vegas in the past and now are planning to make the easier trip to Las Vegas. We think days like last Thursday and Friday could be viewed to volumes seen on weekend days. We also heard of strong results in other sports betting markets such as Mississippi, West Virginia, and Pennsylvania.¹⁵

The Press of Atlantic City also reported that sports betting on the NCAA men’s basketball tournament was further driving additional spending on other casino games, food and beverage at the host casinos:

“There is a lot of ancillary business that occurs. People are eating, drinking, they’re doing some gambling. We’ve seen a nice uptick at our tables,” [Mark Giannantonio, president and CEO of Resorts Atlantic City] said. “So, we’re pleased.”

In the Marina District, Borgata Hotel Casino & Spa put together a large viewing area upstairs complete with a full bar and tellers to accommodate the huge number of sports gamblers.¹⁶

Puerto Rico’s casino are already well suited to generate such spinoff revenues from sports betting because of the Commonwealth’s minimum-investment requirements that effectively require them to be part of a hotel.¹⁷ As such, the island’s casinos already have in place a variety of food and beverage options and amenities; in fact, many of the casino properties are bona fide resorts for which a well designed sportsbook would be a welcome and, in Spectrum’s opinion, accretive amenity. The presence of sportsbooks within the casinos would provide bettors with an experience that could not possibly be replicated by placing wagers online. In Puerto Rico, casinos could schedule special events around sporting events including “travel and play” packages that would help to attract tourists.

¹⁵ “Sports Betting Update: Sports Betting Still Doesn’t Matter? Au Contraire Mon Frere!,” Telsey Advisory Group investor note, March 26, 2019.

¹⁶ David Danzis, “Atlantic City sportsbooks ‘buzzing’ during first March Madness,” *The Press of Atlantic City*, March 22, 2019. https://www.pressofatlanticcity.com/news/press/casinos_tourism/atlantic-city-sportsbooks-buzzing-during-first-march-madness/article_444c2cf5-7b47-59e8-8826-77801c385b67.html

¹⁷ Casinos are subject to the following minimum development requirements, as amended by the Commonwealth in 2015: A Zone 1 casino (San Juan area) must have at least 300 hotel rooms or a minimum \$50 million investment; a zone 2 casino (everywhere except San Juan area) must have at least 200 hotel rooms or a minimum \$40 million investment; and a Zone 3 casino (San Juan historic area) must have at least 125 hotel rooms or a minimum \$10 million investment.

Just as significant, land-based casinos offer loyalty programs that identify and reward casino customers, based on such factors as the frequency of their play, the amount of time spent at the casino, as well as the level of spending. As such loyalty programs are a powerful marketing tool, land-based casinos in New Jersey and other markets that presently offer sports betting are increasingly viewing this new vertical as an opportunity to:

- Identify a different demographic
- Reward those players for their sports-betting spending
- Encourage them to spend money in other areas, including other casino games as well as in non-gaming attractions

In June 2017, Spectrum published a white paper that offered a variety of findings, including the suggestion that sports-betting, if structured properly and marketed effectively, can enhance land-based revenues. The paper noted what we view as permanent characteristics of human behavior:

- People are hard-wired to enjoy games of chance and to take reasonable risk, regardless of the decade in which they were born.
- People are also hard-wired to enjoy social settings, and to seek entertainment experiences with other adults.¹⁸

All of that said, the development of non-casino sports-betting venues in the same markets as casinos as could, in fact, cannibalize casino revenue if they were to offer a similar entertainment environment. That is, if the non-casino venues were to develop specially created sportsbooks that included the amenities (as noted above) that would be also beneficial to casino sportsbooks: big-screen television monitors showing different live sports; large-format digital boards displaying the latest odds and game results; comfortable, lounge-style seating; and food and beverage offerings that may include table or seat service. In effect, the non-casino sportsbooks would be offering the same experience as casinos and thus be direct competitors.

¹⁸ “Online Gaming from a Land-based Perspective,” Spectrum Gaming Group, June 2017, p. 2-3.
<http://spectrumgaming.com/spectrum-presentations-testimony-webinars-and-white-papers/>

II. Projections of Sports Betting in Puerto Rico

In this chapter, Spectrum analyzes the potential size of the sports betting market in Puerto Rico. Our analysis and assumptions substantially rely on benchmarking Puerto Rico’s demographics against what is observed in other mature markets. We also included analysis as to the size of the illegal market in the United States and extrapolate those to Puerto Rico. In addition to our local market estimates we projected potential sports betting revenue that could be generated by the top tourism feeders to Puerto Rico.

A. Assessing the Puerto Rico Market

We tabulated the estimates for the size of the US illegal market, which ranges from \$2.8 billion to \$10.4 billion of GGR, to estimate illegal GGR currently generated in Puerto Rico, as a baseline. These estimates are sourced from various industry experts and were issued in 2016 and 2017. Perhaps the most notable of these is that of the American Gaming Association, which estimates approximately \$150 billion of handle, which equates to \$8.25 billion in GGR (based on 5.5 percent hold percentage).

The average of the four estimates is \$127 billion in handle, which equates to approximately \$7 billion of GGR or \$28 of GGR per US adult. This per-adult estimate compares to \$289 GGR/adult for legal land-based gaming, or about 10 percent. Applying this estimate to the adult population of Puerto Rico and adjusting for household income against the US average (\$19,775 vs. \$57,652) suggests \$24 million of GGR is currently generated from unregulated sports betting. For purposes of this analysis \$24M will serve as a baseline for sports betting estimates in Puerto Rico.

Figure 11: Summary of illegal sports betting estimates for total US

US Adult Population (M)	252				
Household Income	\$57,652				
Illegal Sports Betting Estimates					
Projection Author	Eilers	E&Y	AGA	H2GC	Avg.
Illegal Sports Betting Handle	\$55,000	\$107,000	\$150,000	\$196,000	\$127,000
Hold Percentage	5.0%	6.0%	5.5%	5.3%	5.5%
Sports Betting GGR	2,750	6,420	8,250	10,388	6,952
Sports Betting GGR/US Adult	\$11	\$25	\$33	\$41	\$28
Casino GGR					
Commercial Casinos	41,200				
Native American	32,500				
Total US	73,700				
GGR/Adult	\$292				
Illegal SB Estimates – Puerto Rico					
Total Population	3.2				
Adult Population	2.6				
Household Income	\$19,775				
Sports Betting GGR per Adult	\$9				
Illegal Sports Betting GGR	\$24				

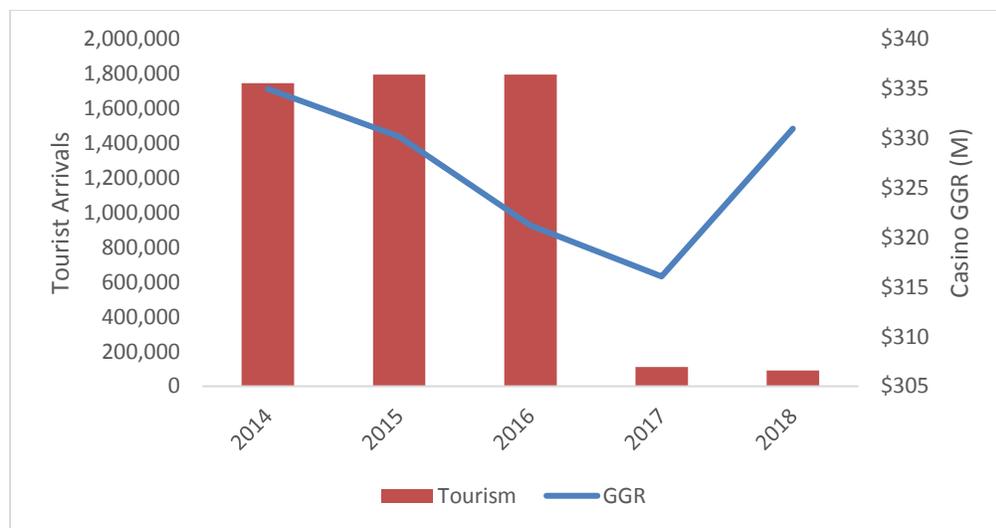
Source: American Gaming Association, Eilers & Krejcik, H2 Gambling Capital, Spectrum Gaming Group

As part of our analysis we reviewed Puerto Rico’s tourism trends for insight into whether the substantial tourism market could be an additional source of revenue for sport betting. According to the Puerto Rico Tourism Authority, from 2009-2016 an average of 1.6 million tourists visited the island

annually. About 90 percent of the tourists come from the US, and of those roughly one-third are sourced from New York, New Jersey and Florida.

In 2017 and 2018 there was a substantial decline in tourism arrivals to Puerto Rico, primarily attributed to the devastation caused by natural disasters and hurricanes in October and December 2017. These natural disasters occurred right before the peak tourist season, which lasts from December through May.¹⁹ Figure 12 illustrates the significant drop-off in tourism arrivals along with the noteworthy absence of significant drop-off in annual slot revenue.

Figure 12: Tourism arrivals and casino gross gaming revenue GGR for Puerto Rico, 2014-2018



Source: Puerto Rico Tourism Company

Over the last five years land-based GGR averaged \$327 million and stayed relatively consistent even in 2017 and 2018. This suggests that Puerto Rico’s casinos are mostly frequented by locals as opposed to tourists. We believe this is due to the fact that regional gaming supply is so widespread across the US that tourists are not as likely to gamble while visiting Puerto Rico. As it relates to sports betting, we assume that just like land-based GGR is mostly generated by locals, the same will be true for sports betting.

B. Projected Sports Betting Gross Gaming Revenue: \$44M to \$62M

We adjusted the GGR per adult estimate across the United States of \$50 to \$70 for Puerto Rico’s lower household income (“HHI”) and adult population to arrive at this range of estimates. If the Puerto Rico market were to behave like New Jersey thus far, and European markets generally, digital betting would account for at least two-thirds of total GGR. For additional context, sports betting GGR in Puerto

¹⁹ N’dea, Yancey-Bragg, “Puerto Rico Leaders Hope to Lure Tourists Back by Christmas,” *USA Today*, November 1, 2017. <https://www.usatoday.com/story/travel/destinations/2017/11/01/puerto-rico-leaders-hope-lure-tourists-back-christmas/773754001/>

Rico could be between 13 percent and 19 percent of land-based gaming, in line with other states. The results of our analysis are illustrated in Figure 13.

Figure 13: Projected sports betting gross gaming revenue for Puerto Rico

Puerto Rico Demographics		
Total Population (M)	3.2	
Adult Population (M)	2.6	
Household Income	\$19,775	
Gross Gaming Revenue Estimate	Low	High
GGR/Adult ¹	\$17	\$24
Total GGR (\$M)	\$44	\$62
Retail (\$M)	\$15	\$21
Digital (\$M)	\$29	\$41

Source: Spectrum Gaming Group. ¹ US range of \$50-\$70 adjusted downward to reflect lower household income in Puerto Rico.

Sports betting GGR could be closer to Spectrum’s \$62 million estimate, mainly because our retail estimates are conservative by design. Assumptions for retail sports betting include offering it at casinos, a racetrack, densely populated and touristic areas (via self-service betting terminals) and other retail outlets, such as former cockfighting venues. The widespread availability of retail sports betting could produce higher retail GGR than the current projections of one-third of overall sports betting revenue.

For the purposes of our analysis, Spectrum assumed that Puerto Rico would have a highly competitive tax rate – 15 percent or lower – that would allow its sports betting operators to offer the most attractive options to bettors. A tax rate lower than that amount would not result in a materially more attractive sports betting operation.

Sports betting could receive a marginal increase as a result of tourist participation. We analyzed the largest tourism feeder states to Puerto Rico over the last 10 years. We used the 10-year average so as not to heavily weight the last two years of low visitation on account of natural disasters.

Next, we made assumptions as to the capture rate of tourist to Puerto Rico that would participate in sports betting. We assigned a 5.0 percent capture rate for states that do not offer sports betting and a 2.5 percent capture rate for states residing next to a state that offers sports betting and for states that currently offer sports betting. Next, we applied spend per adult estimates for total US on an adjusted basis for each state to arrive at sports betting projections from the main tourism market. The results of our analysis are illustrated below. The GGR output from 11 states is between \$1.7 million and \$2.4 million.

Figure 14: Projected sports betting revenue from top tourist feeder states to Puerto Rico

State	Peak Visitation	10-Year Average	Percent/Total	SB Legal?	Capture Rate	Sports Bettors	HHI	Spend/Person		Sports Betting GGR	
								\$50	\$70	Low	High
New York	263,613	191,376	17%	√	2.5%	4,784	\$62,765	\$54	\$76	\$260,436	\$364,610
Florida	247,672	182,759	16%	X	5.0%	9,138	\$46,710	\$41	\$57	\$370,182	\$518,254
New Jersey	129,331	98,784	9%	√	2.5%	2,470	\$76,475	\$66	\$93	\$163,795	\$229,313
California	91,332	66,903	6%	X	5.0%	3,345	\$67,169	\$58	\$82	\$194,869	\$272,816
Texas	86,572	63,745	6%	X	5.0%	3,187	\$57,051	\$49	\$69	\$157,701	\$220,781
Illinois	89,334	58,679	5%	X	5.0%	2,934	\$61,229	\$53	\$74	\$155,800	\$218,121
Georgia	62,541	47,739	4%	X	5.0%	2,387	\$52,977	\$46	\$64	\$109,670	\$153,538
Pennsylvania	57,694	41,980	4%	√	2.5%	1,049	\$56,951	\$49	\$69	\$51,836	\$72,571
Massachusetts	57,866	40,167	3%	X	2.5%	1,004	\$74,167	\$64	\$90	\$64,591	\$90,427
Washington	55,952	28,829	3%	X	5.0%	1,441	\$66,174	\$57	\$80	\$82,727	\$115,817
Connecticut	40,083	28,637	2%	X	5.0%	1,432	\$73,781	\$64	\$90	\$91,620	\$128,268
Total			74%			33,172				\$1,703,227	\$2,384,518

Source: Puerto Rico Tourism Company, Spectrum Gaming Group. HHI = household income

C. Esports Betting could Generate Incremental Interest

Esports, or competitive video gaming, has been widely recognized as a new form of entertainment, especially popular with Millennials (i.e., those born, at the widest range, between 1976 and 2004). Several esports leagues have been formed for specific, popular games including League of Legends, Overwatch, and Fortnite, similar to the way the NBA formed for basketball, MLB for baseball and NFL for football.

Wagering on esports events was legalized in Nevada in May 2017. Casino operators in Nevada have made small investments in facilities to accommodate esports, including a 15,000-square-foot, 200-seat esports arena on Fremont Street in Downtown Las Vegas, a Millennial playground called Level Up at the MGM Grand on the Las Vegas Strip, and a dedicated video gaming lounge at the Downtown Grand casino with live tournaments every Friday and Saturday night.²⁰

Esports wagering has not made a significant impact in terms of revenue in Nevada thus far. Speaking at the UNLV Gaming and Hospitality Education Series in March 2019, Sandra Douglas Morgan, Chairwoman of the Nevada Gaming Control Board, said the regulator had received only four requests to offer esports wagering since 2017. “There seems to be a public interest in esports but not a significant demand from licensees to offer wagers on esports events. We believe that esports must become more mainstream in order to generate material demand for esports wagering,” she said.²¹

Spectrum understands that Nevada regulators are also concerned about the integrity of betting on esports, namely the need for a robust sanctioning body that has dispute-resolution procedures firmly in place, as the outcome of wagers could depend on decisions made by the sanctioning body.

In New Jersey, regulators have interpreted the state’s sports-betting law to allow for wagering on esports. However, betting on esports has yet to be offered. David Rebeck, Director of the New Jersey Division of Gaming Enforcement, told Spectrum on March 27, 2019, that the state’s gaming regulators and operators are concerned about the integrity of esports from a betting perspective. Rebeck said New Jersey will be watching how this activity unfolds in Nevada before considering such a market. He said betting on esports eventually will happen in New Jersey, but for now both the state’s regulators and operators are content to have esports offered strictly as a non-betting entertainment option.

It is important to note that esports today appeals predominantly to the younger generation – many of whom are below the usual legal gambling age of 21. As reported in a 2017 national survey:

In the sample of adults, 78% said they preferred the live sporting event, with only 15% choosing the live esports competition. Interestingly, among teens/young adults (ages 14-21), a majority (65%) also chose the live sporting event, but a larger proportion of the sample (35%) chose a live esports competition. Even more notable is that this number is even higher (41%) among the youngest respondents in the survey – those 14-

²⁰ David Sheldon, “E-sports Betting Now Fully Recognized Under Nevada Law, Gov. Sandoval Signs Parimutuel Bill,” Casino.org, May 30, 2017. <https://www.casino.org/news/esports-betting-now-fully-recognized-under-nevada-law-gov-sandoval-signs-parimutuel-bill>

²¹ Matthew Enderby, “Nevada Regulator: Esports Betting Yet to Match Public Interest,” *Gambling Insider*, March 2019. <https://www.gamblinginsider.com/news/6806/nevada-regulator-esports-betting-yet-to-match-public-interest>

17. This appears to represent a fairly considerable difference in the sports viewing preferences among American teenagers.²²

In the United States, esports may one day prove to be a popular offering for sports bettors as the core generation of esports participants and viewers ages, but Spectrum believes it is too early to factor this activity into our forecasts for sports betting revenues.

On a global scale, however, wagering on esports is more robust. The *Washington Post* last year reported:

[G]lobal wagering on esports was projected at \$6.7 billion for 2018 in a report by software analytics company Narus and research firm Eilers & Krejcik Gaming. That same report expected the total to approach \$13 billion by 2020.²³

²² “Esports and Competitive Video Gaming: Results from Two Surveys,” UMass Lowell Center for Public Opinion in conjunction with the *Washington Post*, March 9, 2018. https://www.uml.edu/docs/esports-highlights_tcm18-288117.pdf

²³ Noah Smith, “Esports bookmaking? Globally, it’s already a billion-dollar gambling industry,” *Washington Post*, April 6, 2018. https://www.washingtonpost.com/sports/esports-bookmaking-globally-its-already-a-billion-dollar-gambling-industry/2018/04/06/be89c282-2b99-11e8-8688-e053ba58f1e4_story.html?noredirect=on&utm_term=.5f76b7476c1d

III. Policy and Regulatory Considerations

One of the fundamental differences between operating casino or lottery games, and sports betting, is the element of risk that exists in sports betting. In the sports betting industry, the risk management skill of the operator is pitted against the forecasting skill of the player. The ultimate result of the sports event is out of the control of both operator and player. The operator weighs the statistical probability of sporting contest outcomes along with other factors to set odds – an expression of probability – that theoretically allow the operator to make money over the long term and encourage as many players as possible to place a wager. In that context, there will be both individual events and patterns of events that may result in the operator losing money.

While the sports betting industry is different to casinos, where the Law of Large Numbers applies in generating a long-term return, the higher the volume of sports wagers taken over time the higher the probability a skilled sports-betting operator will successfully manage its risk and generate positive gross gaming revenue. Here, the policy decision is how much, if any risk, does the Commonwealth of Puerto Rico want to bear. If it wants to bear some risk, then it will share in the earnings, and sometime losses, of a sports betting operation.

Thus, the implementation of legal sports betting in any jurisdiction requires an understanding of the key policy and regulatory factors that serve to determine, among other aspects, how and where the activity takes place, how it will be regulated, and how it will be provided to patrons. In this chapter, Spectrum provides critical insights on key aspects that jurisdictions must take into consideration when developing sports-betting policy.

A. Distribution Channels

As noted in the Introduction of this report, the primary distribution channels for sports betting are as follows:

- **Retail**, in which players attend a physical location within a jurisdictional boundary and access betting via such methods as over-the-counter (“OTC”), kiosk or self-service betting terminal.
- **Digital**, in which players access betting by utilizing online websites accessed via desktop, laptop or mobile devices, irrespective of their physical location within a jurisdictional boundary.

1. Retail Options

Over-the-Counter System

A modern, integrated over-the-counter (“OTC”) system will enable fast, and accurate, bet transactions to be taken directly from customers, both via customer call-over and written betting slips, or “mark-sense” cards. Frequently featuring secure electronic point-of-sale (“EPOS”) tills, an OTC system will possess an ability to handle multiple customers simultaneously and be able to take/pay-out cash from/to the player, plus offer other card-based payment options. Directly linked to a supporting Customer

Management System, an OTC system should be able to offer the same range of bets as available through other distribution channels and have an ability to identify individual customers via any loyalty schemes in place.

While a potentially viable option for the operator, and convenient to a range of sports betting customers, successful OTC systems require staffing, physical space and secure locations. They also require significant investment, in real-estate, TV screens and retail-environment infrastructure and often need extended opening hours to maximize turnover and revenue. In terms of return on investment (“ROI”), OTC systems should thus be closely examined in conjunction with alternative distribution channels, both retail and digital, before investment decisions are made.

Self-Service Betting Terminals

Self-service betting terminals (“SSBTs”) are defined as terminals that enable the consumer to self-select and strike sports bets through a networked-system typically consisting of a touchscreen, barcode scanner, under-counter unit housing a contactless card reader, cash acceptor and receipt printer. With the ability of SSBTs to offer and support a wide variety of bet types and markets – and do so in multiple-languages and with a variety of payment mechanisms – operators typically find gross win margins (or hold percentage) from bets struck on SSBTs to be well above average due to the nature of player betting patterns, and above-average selection of higher-margin multiple/parlay bets by the player.

Since the introduction of its SSBTs in New Jersey in late 2018, one provider has seen its operator-clients recording a 15 percent gross win margin, contrasting the more-normal 6 percent experienced through alternative betting channels.²⁴ For novice bettors especially, SSBTs remove the uneasiness of acknowledging to a human clerk that one is unfamiliar with how to place a bet. Spectrum thus believes SSBTs to be a viable and valuable potential channel for sports betting, located within both existing, and any new, retailer outlets.

On a global basis, the main SSBT provider to date has been Austrian-based BGT, founded in 2005; BGT was acquired in 2016 by Playtech and now operates as Playtech BGT Sports. Existing US-facing suppliers with alternative offerings are currently operating within Nevada and New Jersey, including Golden Entertainment/William Hill and SBTech/Resorts Atlantic City Casino Hotel. To date, most SSBTs operated by sportsbook operators are located in Europe, with UK, Eastern Europe and Greece being the most densely populated markets.

Operationally, SSBTs typically require the following to function within a retail environment:

- Power supply
- Internet connectivity
- 6 square feet to 7 square feet of floor space, where approximately 60 percent is needed for the SSBT and 40 percent the standing-room needed for the consumer

²⁴ John Brennan, “Exec Says Slow Pace of MLB Play Makes It Perfect for In-Game Betting,” NJ Online Gambling, October 15, 2018. <https://www.njonlinegambling.com/exec-says-mlb-perfect-in-game-betting/>

- Ability to securely fix a unit within the retail environment

Other operational features typically include:

- Cash/coins/debit card payment-in options
- Loyalty card (tap-to-ID) function
- Ticket-out, cash-in at retailer cashier/pay-out function

The following is a summary of typical contractual arrangements, prevalent in Europe, relating to the supply and operation of SSBTs:

- Units supplied on a rental basis, with a typical rental period of three years
- Revenue-share model, in which 15 percent to 20 percent of net gaming revenue generated by SSBT is paid to supplier, covering notional rental cost and profit contribution
- Usually subject to minimum revenue levels
- Volume-related discounts commonly available

Although existing penetration of SSBTs is currently low within the US, Spectrum’s channel checks, undertaken in October 2018 at the Global Gaming Expo in Las Vegas and in February 2019 at the ICE expo in London, indicate that SSBT suppliers are adopting similar contractual arrangements within the US, which all suppliers see as a valuable market-expansion opportunity.

2. Digital, Including Mobile

Sports betting offered on a mobile platform is commonly regarded as the ideal channel to create and retain customers, due to its convenience, consumer preference and prevalence-of-ownership by sports bettors. In other developed sports betting markets, mobile devices can take up to 70 percent of all bet volumes and revenues; in other markets, for some consumer segments, it is their chosen default channel, and they choose not to use any other, whether retail or digital.

Research shows that younger, educated, urban and higher-income groups – all attributes to be found in the leading Puerto Rico inbound visitor states (see table below) – have the highest ownership and usage patterns of smartphones,²⁵ devices ideally suited to the preferred usage patterns of sports-betting players in other developed sports-betting markets.²⁶

It should also be noted that the leading Puerto Rico inbound visitor states – in which five states generate almost 50 percent of total US visitation – possess “significantly higher” smartphone adoption and usage rates than many other US states.

²⁵ “Mobile Fact Sheet,” Pew Research Center, February 5, 2018. <https://www.pewinternet.org/fact-sheet/mobile/>

²⁶ *Online Gambling Quarterly*, Winter 2018 Edition. <https://view.publitas.com/mecn/online-gambling-quarterly/page/1>

Figure 15: Visitors to Puerto Rico, top five states and share of total US visitors, 2017-2018

State	Total Visitors	Share of 2017-2018 US Total
Florida	10,972	14.98%
New York	10,097	13.78%
Texas	6,690	9.13%
New Jersey	4,358	5.95%
California	4,205	5.74%
Total	36,322	49.58%

Source: Puerto Rico Tourism Authority

Spectrum thus recommends the availability of a mobile sports-betting application, with a full range of betting products and markets, be available to both Puerto Rico inhabitants and visitors.

B. Gaming-Tax Rate

For the Commonwealth of Puerto Rico, the tax rate and the associated overall regulatory structure of sports betting should be deemed reasonable by *both* the gaming operators and their suppliers to allow for the development of a sustainable industry in that the supplier/provider can earn money over time. When a supplier/provider is bearing all the risk, a sustainable commercial model requires a reasonable tax rate *and* for the supplier/provider to be incentivized to perform through a reasonable commercial return.

The following table provides a profitability analysis for selected existing US state sports-betting operations that went live in 2018, plus the projected District of Columbia operation (operated by the DC Lottery), which expected to commence this year. It shows that operating expenses generally account for 60 percent of GGR for a sportsbook that offers digital and retail channels. These operating expenses include all overhead costs including staffing, marketing costs and vendor/technology fees.

Note that this table assumes a constant hold percentage (of GGR) and operating expenses for all the identified markets; the key variable is the state tax rate.

Figure 16: Profitability analysis, tax rate impact on sports-betting profit and loss, selected states

	DC	NJ	MD	PA
State Tax Rate	10%	13%	20%	36%
Gross Revenue	\$1,000	\$1,000	\$1,000	\$1,000
Gross Win Percentage	5%	5%	5%	5%
GGR	\$50	\$50	\$50	\$50
State Tax	(\$5)	(\$6.50)	(\$10)	(\$18)
Net GGR	\$45.0	\$43.5	\$40.0	\$32.0
Operating Expense	\$30	\$30	\$30	\$30
EBITDA*	\$15	\$13.50	\$10	\$2
EBITDA Margin	30%	27%	20%	4%

Source: State gaming commissions, Spectrum Gaming Group *EBITDA = earnings before interest, taxes, depreciation and amortization, a widely-used measure of profit

By way of comparison, and as demonstrated in the table above, for every \$1,000 wagered on sports in Washington, DC, at the Lottery’s planned 10 percent tax rate, and assuming a payout rate of 95 percent, the operator will earn \$15 in expected earnings before interest, taxes, depreciation and

amortization (“EBITDA,” a widely used measure of profitability), at an EBITDA margin of 30 percent, deemed sustainable by any reasonable businessperson contemplating market entry.

By contrast, the same \$1,000 wagered in Pennsylvania, with its 36 percent tax rate on sports betting GGR, will earn the operator \$2 in expected EBITDA, at margin of 4 percent, deemed wholly unsustainable on its own (but worthwhile for at least some Pennsylvania casino operators because the sports betting may offer a significant ability to attract new customers and generate visitation to the overall property).

Spectrum’s analysis suggests that higher tax rates – characterized as more than 15 percent of GGR – will force operators to make difficult decisions: either accept a lower return on investment or offer less competitive odds. The latter choice would certainly hinder efforts to take market share from the illegal market. Spectrum thus believes there is evidence for a working assumption that a reasonable tax-rate for sports betting be within the 10 percent to 15 percent range, and such a proposed tax-rate range on GGR in Puerto Rico will help enable a competitive, and sustainable, sports-betting industry to be established. As noted in Chapter I of this report, states are also required to pay a federal excise tax of 0.25 percent of sports betting handle, which is equivalent to 5 percent of GGR.

Spectrum understands that the Commonwealth of Puerto Rico may consider a two-tier tax-rate scheme in which GGR from bets placed at a physical casino (i.e., retail) would be taxed at 6.0 percent, whereas GGR from digital bets would be taxed at 11.5 percent. In the following table, we calculate the blended tax rate assuming different splits of retail/digital wagering.

Figure 17: Blended sports betting GGR tax rate at various channel share, retail and digital

Retail Share (@ 6% Tax Rate)	Digital Share (@ 11.5% Tax Rate)	Blended Tax Rate
25%	75%	10.125%
50%	50%	8.750%
75%	25%	7.375%

Source: Spectrum Gaming Group

1. Royalty Fee

Professional sports leagues such as the National Basketball Association and Major League Baseball have lobbied for states to include a “royalty fee” when legalizing sports wagering in their respective jurisdictions. While the argument was made that expanded sports wagering will increase league administrative costs associated with ensuring games are conducted fairly and without criminal influence, the Commissioner of the NBA recently suggested that the premise – which was originally presented as an “integrity fee” – may be better described as a “royalty fee” to compensate the leagues for producing the product upon which the wagering is based. Professional sports leagues initially advocated a fee of 1 percent on handle, which would approximate to 20 percent of adjusted gross gaming revenue. Leagues have since decreased their ask to 0.25 percent, but despite strong lobbying efforts no state has included an integrity fee in enacted legislation.

Adamantly opposed to the concept of such fees, certain gaming companies individually have instead entered into mutually beneficial agreements on with sports leagues regarding sports wagering. For example, MGM Resorts International and the NBA have reached an agreement wherein MGM became

the official gaming partner of the NBA, with co-branding, mutual media promotion, and data integration aspects to the agreement. Such agreements between professional sports leagues and gaming operators will likely supplant the (to-date) unsuccessful quest for legislatively mandated integrity fees.

C. Jurisdiction

On May 14, 2018, the Supreme Court of the United States issued its decision in *Murphy, Governor of New Jersey, et al. v. National Collegiate Athletic Assn., et al.*, empowering all states, commonwealths and territories with the discretion to authorize sports wagering. Finding an unconstitutional violation of state's rights, the decision invalidated the federal Professional and Amateur Sports Protection Act ("PASPA") which had confined legalized sports wagering only to the four states (Nevada, Delaware, Oregon, Montana) that had some form of legalized sports wagering in place as of January 1, 1994. Of those states, only Nevada had full-fledged sports wagering. In the months since the Supreme Court decision, states have moved rapidly in pursuit of the economic benefits of legalized sports wagering; live single game sports wagering is now legally offered in eight states (Nevada, Delaware, New Jersey, Mississippi, West Virginia, Pennsylvania, Rhode Island and New Mexico [at tribal casinos only]). It is instructive to examine the varied approaches the latter six newly active states with state-regulated sports-betting have taken in implementing, delivering, regulating and taxing this form of wagering.

1. Delaware

On June 5, 2018, Delaware ended Nevada's sports wagering monopoly and became the first state to initiate full-scale sports wagering since the Supreme Court's decision overturning PASPA. Delaware already had legalized sports parlay wagering²⁷ that had been grandfathered in under PASPA. With the legalization of single-game wagering, the Delaware sports wagering market morphed into two distinct delivery systems: (1) full-scale sports wagering permissible at the three existing racetrack/casino facilities, and (2) parlay wagering (only) at over 100 sports lottery retailer locations such as bars, restaurants, liquor, and convenience stores. The Delaware Lottery, which regulates casinos gaming and all legalized sports wagering in the state, recently reported a marked difference in the amounts wagered, with casino-based full-scale sports wagering averaging \$51 per wager, while parlay wagering outlets (sports lottery retailers) averaging \$11.

Delaware does not require additional licenses for either tier of sports wagering outlets in most circumstances. Licensed casinos ("Video Lottery agents" under Delaware law) need not apply for a separate sports lottery license, and licensed retail lottery agents (sellers of lottery tickets) likewise need not apply for a sports lottery license. A retail establishment that is not a licensed lottery agent may apply for a sports lottery license. Standards are moderate. For example, conviction of a felony, a crime of moral turpitude, or a crime involving gambling, will act as a bar to a retailer's license if only within 10 years of the filing date of the application.

Delaware does license technology providers of sports lottery systems that consist of sports wagering products, risk management (bookmaking), operations and support services, and has the ability

²⁷ In Delaware parlays must consist of three or more single wagers, and all must win for the wager to be paid.

to select one or more to provide such services to the Delaware Lottery. Currently, Scientific Games acts as Delaware Lottery's single-platform technology provider of sports lottery systems, which it then distributes to all outlets. Service companies – defined in part as a vendor offering goods and services relating to the manufacture, operation, maintenance, security, distribution, service or repair of sports lottery machines – are licensed in accordance with key employee standards. Delaware law requires that the risk manager of the sports lottery must be a bookmaker currently licensed to operate – and operating – in the United States and the sports lottery technology provider must be licensed to operate lotteries in the United States. Licensing by those other jurisdictions may negate the necessity of a complete licensing investigation if the foreign jurisdiction's processes and standards are comprehensive and otherwise acceptable to Delaware regulators.

Unlike legislation found in West Virginia, Delaware does not explicitly bar licensure of a company or individual who had been directly employed by any illegal or offshore book that serviced the United States, or otherwise accepted such wagers from individuals located in the United States (known as a “bad actor” provision, also found in internet gaming laws in certain states). However, its licensing criteria is broad enough to permit discretionary denial in such circumstances.

The minimum gambling age is 21, and although legal, mobile or digital wagers are not yet accepted. Wagers on sporting events that involve a Delaware college, university, amateur or professional teams are not permitted.

Delaware's computation of a sports wagering tax is novel. For full-scale sports wagering outlets (casinos), after winners are paid, the technology provider (Scientific Games) receives 12.5 percent. From the remainder, the State's share is 50 percent, the casino receives 40 percent, and approximately 10 percent goes to supplement horse racing purses. For sports lottery tickets sold through retail lottery agents, the agents receive a commission of 5 percent.

2. West Virginia

The West Virginia Lottery Commission²⁸ permits a statewide total of five sports wagering licenses, one for each existing gaming facility (4) and racetrack video lottery facility (1). Each applicant must pay a \$100,000 application fee, with the same fee upon every five-year renewal. Sports wagering may occur at bricks-and-mortar locations and through a mobile application or other digital platforms as approved by the Lottery Commission.

West Virginia has four license tiers applicable to sports wagering. The Sports Wagering license is held by the existing gaming facility or racetrack. The holder of a Sports Wagering license may contract with an entity to conduct sports wagering on its behalf, and that entity must obtain a Management Service Provider license, which carries a \$1,000 application fee, renewable annually. Licensing by another jurisdiction may be acceptable to West Virginia. Supplier licenses are required of those persons selling or leasing sports wagering equipment, systems or other related items. Provisional licenses are permitted. A

²⁸ The State of West Virginia does not use the term “casino” in descriptions of its gaming facilities or its regulatory commission. Although its four gaming facilities offer traditional casino games such as blackjack, craps, and roulette, they are referred to as lottery games.

supplier license carries a \$1,000 application fee, renewable annually. All persons employed to be directly engaged in sports wagering activities or otherwise conducting or operating sports wagering must obtain an occupational license, subject to a \$100 annual fee.

In addition to the standard licensing criteria, West Virginia contains a “bad actor” provision and bars licensure of a company or individual who had been directly employed by any illegal or offshore book that serviced the United States, or otherwise accepted such wagers from individuals located in the United States.

The minimum gambling age is 21, and all mobile or digital wagers must originate in the state. The West Virginia Act does allow agreements with other sports wagering jurisdictions. No gaming facility employee may place a sports wager at the employer’s facility or through mobile/digital means; and no Lottery Commission employee may knowingly wager or be paid a prize at any licensed gaming facility (in-state) or any facility out of state owned by a licensee. All professional and collegiate sports are wagerable, with no wagering restrictions on in-state collegiate teams.

The sports wagering tax is 10 percent of the licensee’s adjusted GGR receipts. The West Virginia Lottery Commission is responsible for all regulatory oversight of sports wagering.

3. Pennsylvania

Pennsylvania restricts sports wagering to licensed casinos, which may operate sports wagering upon the authorization of the Pennsylvania Gaming Control Board (“PGCB”), as evidenced by the awarding of a Sports Wagering Certificate (renewable every five years). There is a one-time Sports Wagering Authorization fee of \$10 million.

The holder of a Sports Wagering Certificate may contract with an entity to conduct sports wagering on its behalf, and that entity must obtain a Sports Wagering Operators license, which carries a \$50,000 application fee, subject to review every five years. A manufacturer license is required for any person that a licensed casino operator contracts with to assist in the offering of sports pool wagering by providing or support a sports wagering device or related equipment. A manufacturer license carries a \$10,000 application fee, renewable every five years. Pennsylvania gaming licensing standards applicable to principals, key employees, and gaming employees apply to sports wagering. The Pennsylvania Gaming Control Board is responsible for regulatory oversight of sports wagering.

Sports wagering may occur at casino locations, through mobile applications, or through online platforms as approved by the PGCB. The minimum gambling age is 21, and all mobile or digital wagers must originate in the state. All professional and collegiate sports are wagerable, and Pennsylvania has not finalized any wagering restrictions on in-state collegiate teams. Pennsylvania State University has lobbied for a wagering ban on in-state collegiate teams. The Pennsylvania law does allow agreements with other sports wagering jurisdictions.

The sports wagering tax is 36 percent of the licensee’s adjusted gross sports wagering receipts (34 percent to the state, 2 percent as a “local share assessment”).

4. Rhode Island

The state of Rhode Island presents a unique model; a state-operated sports wagering system hosted only by its two casinos overseen by the state lottery. Rhode Island's sports wagering law empowers the Rhode Island Lottery to "implement, operate, conduct and control" sports wagering in its two licensed casinos. IGT acts as the "sports wagering vendor." Mobile gaming is permissible only within the casino premises (although there is pending legislation that may enlarge that footprint). The law provides that no additional licenses are necessary to conduct sports wagering.

Rhode Island's small entry into the legalized sports wagering industry comes with the nation's highest tax rate to date. The State receives 51 percent of adjusted GGR from sports wagering. The technology provider/operator (IGT) receives 32 percent, with the remaining 17 percent to the host casino. The two towns where the casinos are located will each receive \$100,000 annually for compensation as host communities. Of note, under Rhode Island law payments for winning wagers, marketing expenses related to sports wagering, federal excise taxes, and the annual host community fees are first deducted from gross gaming revenue before the distributions are made.

Consistent with policy in several other jurisdictions, wagering on any Rhode Island collegiate team is prohibited, regardless of where the contest occurs. Similarly, no wagers may be made on any collegiate game occurring in Rhode Island, regardless of the team identity. The Rhode Island enabling statute did not address potential inter-jurisdictional agreements.

The Rhode Island Lottery is responsible for regulation of sports wagering. The minimum gambling age is 18.

5. New Jersey

New Jersey restricts sports wagering to licensed casinos and racetracks (including defined former racetracks), currently nine casinos and four racetracks. Sports wagering may occur at those locations, through a mobile application, or online. Each holder of a sports wagering license may operate up to three individually branded sports wagering websites.

New Jersey's regulatory oversight of sports wagering is partially, but only temporarily, bifurcated. The Division of Gaming Enforcement ("DGE") is tasked with issuing sports wagering licenses to casinos, while the Racing Commission issues initial sports wagering licenses to racetracks. However, the DGE is tasked with handling all renewals of sports wagering licenses, whether casino or racetrack-based. Aside from the licensing bifurcation, by statute the DGE is generally responsible for regulation of sports wagering statewide. Each applicant for a sports wagering license must pay a \$100,000 application fee, with a five-year renewal "reasonable fee" based upon expenses of renewal, enforcement, and gambling addiction programs.

New Jersey has multiple license tiers. The Sports Wagering license is held by the existing casino gaming facility or racetrack. The holder of a Sports Wagering license may contract with an entity to conduct online sports wagering on its behalf, and that entity must obtain a Casino Service Industry Enterprise license, which carries a \$5,000 application fee, subject to review every five years. Vendor licenses or vendor registration is required of those persons selling or leasing sports wagering equipment,

systems or other related items. All persons employed to be directly engaged in sports wagering activities or otherwise conducting or operating sports wagering must obtain either a Key Employee license or be registered as a casino employee, at the DGE's discretion. At least one key employee must be on the sports wagering premises during business hours.

The minimum gambling age is 21, and all mobile or digital wagers must originate in the state. Self-service kiosks are permitted only within the licensee's facility, and each licensee must have a "bricks and mortar" sports wagering lounge on its premises. The New Jersey Act does allow agreements with other sports wagering jurisdictions. All professional and collegiate sports are wagerable, except those involving New Jersey college teams (wherever played) or New Jersey college venues (with limited exceptions). Wagers on high school sports, esports, and competitive video games are not permitted. Servers or related equipment used to accept wagers must be located in state.

New Jersey has wide ranging restrictions on sports wagering involvement by those associated with organized sports. N.J.S.A. 5:12-11 2(f)1 provides that:

Any person who is an athlete, coach, referee, or director of a sports governing body or any of its member teams, a sports governing body or any of its member teams, a player or a referee personnel member, in or on any sports event overseen by that person's sports governing body based on publicly available information, a person who holds a position of authority or influence sufficient to exert influence over the participants in a sporting contest, including but not limited to coaches, managers, handlers, athletic trainers, or horse trainers, a person with access to certain types of exclusive information on any sports event overseen by that person's sports governing body based on publicly available information, or a person identified by any lists provided by the sports governing body to the division and the racing commission shall not be permitted to have any ownership interest in, control of, or otherwise be employed by an operator, a sports wagering licensee, or a facility in which a sports wagering lounge is located or place a wager on a sports event that is overseen by that person's sports governing body based on publicly available information.

New Jersey's sports wagering tax is 8.5 percent of the licensee's adjusted gross sports wagering receipts, except that Internet sports wagering is taxed at 13 percent. Casinos pay an additional investment alternative tax of 1.25 percent for tourism and marketing programs in Atlantic City. Racetracks pay an additional tax of 1.25 percent for distribution to local municipal/county host governments.

6. Mississippi

Mississippi restricts sports wagering to licensed casinos, which may operate sports wagering with "permission from the Executive Director" of the Mississippi Gaming Commission ("MGC"). No fee related to sports wagering has been identified in addition to the existing \$5,000 annual casino licensing fee. Mobile gaming is permissible only within the casino premises. There is no provision for online sports wagering. A person or entity that a licensed casino operator contracts with to assist in the offering of sports pool wagering by providing operational, technical or other associated support is required to obtain a manufacturer license and/or a distributor license from the MGC, which in form and substance is equivalent to the licensing standards for a gaming license. A manufacturer license and a distributor license each carries a \$1,000 application fee, renewable annually. Each facility must "employ or engage the services of a sports wagering manager, or similar employee, with experience and expertise in the operations of a sports book."

The sports wagering tax is 12 percent of the casino licensee’s adjusted gross sports wagering receipts. The minimum gambling age is 21. All professional and collegiate sports are wagerable, and there are yet no restrictions for wagering involving Mississippi college teams (wherever played) or Mississippi college venues.

The MGC is responsible for all regulatory oversight of sports wagering.

D. Regulatory Model

The seven states with operational legalized sports wagering regulated at the state level at this time have all primarily (if not exclusively) integrated sports wagering into existing casino properties. These decisions seem rooted in purposeful public policy decisions to support existing gaming establishments. This is evident even in Delaware, wherein the state authorized three existing casino properties to operate full-fledged sports wagering while simultaneously permitting storefront retail lottery outlets to participate by offering limited wagers only on sports parlays.

The approach in Delaware is relatable to Nevada’s bifurcated system of restricted and non-restricted gaming licenses, which permits a limited number of slot machines (usually 15) in establishments such as bars, gas stations and convenience stores only if gaming is incidental to the primary business of that establishment. In such cases in Nevada, a “restricted” license is required; a “non-restricted” license allows full casino gaming operations, a category reserved for businesses who have met the myriad and costly requirements for plenary casinos. Underlying Nevada’s stance is the principle that the amount of gaming allowed is proportionate to the investments made, and obligations required, under Nevada law. While Nevada law prohibits a sportsbook (or racebook) at a restricted location, a few years ago it dealt with a policy issue whether self-service sports wagering kiosks were permissible in restricted license locations or whether they were an unacceptable erosion of the line between restricted and non-restricted licenses. Ultimately, a strong casino industry lobby was sufficient for the Nevada legislature to pass a 2013 law banning sports betting kiosks in establishments holding a restricted license. Restricting plenary licensure to those who have made substantial investments in gaming operations within the licensing jurisdiction protects the existing industry. From a regulatory compliance perspective, sports wagering operators with land-based casinos have a significant incentive to conduct business in compliance with all applicable regulations, as the ultimate sanction could foreclose the licensee’s ability to operate both sports wagering and its other casino games.

Assumptions provided to Spectrum by Government officials indicate that the Commonwealth of Puerto Rico desires to make sports wagering as accessible as possible, offered not only in existing casinos but in half of the off-track betting venues and cockfighting venues. An equally important goal shared by the Commonwealth is to ensure casino revenues will not be cannibalized by any such expansion. To date there is no precedent for such a broad roll-out of legalized sports wagering; none of the seven states with full-fledged, state-regulated sports wagering has permitted full sports wagering at locations other than

casinos or casino/racetracks or via mobile or digital means.²⁹ Delaware’s model, which allows lottery retailers to offer parlays (while reserving full sports wagering for the three existing casinos), appears to be successful for all involved, although this model has only been in existence for less than a year.

One possible model that is consistent with the Commonwealth’s goals would be to permit sports wagering licenses to existing casinos while permitting each licensee to contract with a maximum number of other defined retailers (OTBs, cockfighting venues) for operation of satellite venues. Such a system – dependent largely on whether the projected revenues would justify such an arrangement – would place the onus on casino licensees to ensure its satellite operations are in strict conformity with applicable regulations lest violations impact its plenary gaming license. Both casino licensee and (licensed) satellite retailer could derive a benefit from integrated brands. Another possible consideration would be similar to Delaware’s model, wherein plenary sports wagering is offered only at casinos, with retail outlets able to offer versions limited in amount and scope.

All seven states with state-regulated sports wagering at this time have not only integrated sports wagering into existing casino properties but have each tasked their respective casino regulators with the responsibility of regulating sports wagering. New Jersey is the single outlier in permitting licensure by two separate authorities, allowing the Racing Commission to issue the initial five-year sports wagering license to qualified racetracks while licensure of casinos remains the purview of the New Jersey Division of Gaming Enforcement (“DGE”). This bifurcated system of sports wagering licensure is temporary, as the New Jersey Casino Control Act mandates that all renewals of racetrack sports wagering licenses will be handled by the DGE and has explicitly tasked DGE from the outset with all regulatory responsibilities concerning sports wagering, whether casino or racetrack-based.

Regulation of sports wagering encompasses familiar casino regulatory concepts such as licensing, game testing, inspection, auditing, enforcement, and adjudicatory processes for regulatory violations. Sports wagering transactions by casino licensees triggers the same anti-money-laundering federal Bank Secrecy Act reporting and recordkeeping requirements applicable to all casino operations. Problem-gambling issues, including self-exclusion lists, integrate as well. Sports wagering also brings complexities not found in traditional land-based casino gaming, including but not limited to dynamic betting lines (or odds), the necessity for real-time geolocation confirmation to prevent extra-jurisdictional mobile or online wagering,³⁰ and ensuring electronic transactions for wager placement and payment are secure, auditable, and address federal Bank Secrecy Act Know Your Customer mandates.

Utilizing the jurisdiction’s existing casino gaming regulator (Puerto Rico Tourism Company Gaming Division) to oversee all sports wagering is a possible option considering the licensing, oversight and enforcement overlap between sports wagering and casino gaming. Further, the statutory and regulatory

²⁹ Although not yet operational, the District of Columbia Lottery is moving forward with an ambitious plan to offer single-game sports betting directly through its network of Lottery retailers. However, there is no concern over market cannibalization as there are no existing or planned casinos in the District of Columbia.

³⁰ Extra-jurisdictional mobile or online sports wagers are barred by the federal Wire Act, 18 U.S.C. § 1084. We have included a discussion on the Wire Act in this Report, *infra*.

framework for gaming licensing, regulatory oversight and enforcement is already in place; creating a parallel system would be superfluous.

In any event, Spectrum believes a single regulatory agency, such as the Puerto Rico Tourism Gaming Division, should be selected for the regulation of all sports betting on the island. A system of separate regulation of the same conduct would pose substantial challenges to ensuring consistent licensing decisions, uniform regulatory oversight, and equitable impositions of sanctions for violations. Absent a compelling need that outweighs these concerns, we do not consider a dual regulatory system as a viable option.

The overriding purpose behind the consideration of legalized sports wagering is to protect and promote the interests of the Commonwealth of Puerto Rico, which include advancing the existing gaming industry, tourism, employment opportunities they provide, along with enhancing the overall gaming tax revenue stream. With that paramount goal in mind, the sports wagering regulatory model chosen should undergird that policy by conserving governmental resources through focused efficiency, while avoiding any unnecessary redundancy.

1. Regulatory Issues Presented by Sports Wagering

Mobile and online sports wagering, like mobile and online versions of casino games (“igaming”), bring regulatory concerns not present in traditional land-based casino play. Regulations must be in place and enforced to ensure all patrons of mobile and online sports wagering are of legal gaming age, accurately identified, and otherwise qualified to take part in legalized gaming. Creation of a mobile or online gaming account, with verifiable personal identification protocols, is usually the first step in the process in determining authorized players. Mobile or online sports wagering patrons must be present within the defined jurisdictional boundaries when wagering. Regulations must require confirmation of the geographic location (“geolocation”) upon every initial logon, and at select intervals thereafter. Should the geolocation verification system detect presence outside the jurisdictional boundaries, verifiable mechanisms must be present to disable the account until the player returns to the jurisdiction. Procedures for depositing funds in a mobile or online sports wagering account, the withdrawal of such funds from such accounts, the suspension of account activity for security reasons, the termination of accounts and disposition of proceeds therein, and the disposition of unclaimed amounts in dormant accounts are all regulatory necessities.

Socially responsible gaming protocols should extend to sports wagering. This may include mechanisms by which persons participating in mobile or online sports wagering may place limits on the amount of money being wagered at any one time or during any specified time period, or the amount of losses incurred during any specified time period. It is industry best practices to include on mobile and online wagering sites an advertisement for and link to additional information for services for the treatment, education and assistance of compulsive gamblers and their families.

Best practices also require procedures for the security and reliability of mobile and online sports wagering accounts, systems, software, hardware, and other equipment used, and procedures to prevent tampering by unauthorized persons.

These and related technical standards are an important component of sports wagering regulation. To avoid the costly process of generating its own technical standards for geolocation, player account/identity verification, data retention, wagering controls, security, anti-collusion protocols, payment systems, and other issues related to mobile and online sports wagering, based on the PRTC Gaming Division’s existing relationship with Gaming Laboratories International (“GLI”) as its testing laboratory, we suggest GLI-33 Event Wagering Systems be considered for baseline technical standards related to mobile and online sports wagering. GLI reports that the West Virginia Lottery, Mississippi Gaming Commission, and Rhode Island Lottery have adopted or accepted certifications to this sports wagering standard.

2. The Federal Wire Act

The 1961 federal law commonly known as the Wire Act prohibits – with notable exceptions – utilization of wire communications in furtherance of sports wagering. It directly impacts the manner in which the Commonwealth may legally receive wagering information (such as odds) from a risk management contractor, and the jurisdictional scope of sports wagering:

18 U.S.C. § 1084 (a):

Whoever being engaged in the business of betting or wagering knowingly uses a wire communication facility for the transmission in interstate or foreign commerce of bets or wagers or information assisting in the placing of bets or wagers on any sporting event or contest, or for the transmission of a wire communication which entitles the recipient to receive money or credit as a result of bets or wagers, or for information assisting in the placing of bets or wagers, shall be fined under this title or imprisoned not more than two years, or both.

18 U.S.C. § 1084 (b):

Nothing in this section shall be construed to prevent the transmission in interstate or foreign commerce of information for use in news reporting of sporting events or contests, or for the transmission of information assisting in the placing of bets or wagers on a sporting event or contest from a State or foreign country where betting on that sporting event or contest is legal into a State or foreign country in which such betting is legal

The “safe harbor” provisions of § 1084 (b) permit the transmission in interstate or foreign commerce of information assisting in the placing of bets or wagers on sporting events or contests (such as betting odds), only if such betting is legal in both the sending and receiving jurisdiction. Notably, the transmission of wagers themselves on sporting events or contests is not covered by the safe harbor provision even if legal in both sending and receiving jurisdictions. Under § 1084 (e), the Commonwealth of Puerto Rico is included in the Wire Act’s definition of a “State.”

Considering the plain language of the Wire Act, there has been little doubt about the prohibition on interstate sports wagers. However, the last eight years have seen the issuance of two contradictory United States Department of Justice (“DOJ”) opinions on whether the scope of the Wire Act extends beyond sports wagering. Designed for utilization against organized crime bookmaking operations, since its 1961 enactment the Wire Act was expansively interpreted by the DOJ to criminalize interstate online gaming. In fact, in a letter dated August 23, 2002, the DOJ advised the Nevada Gaming Control Board that despite its 2001 legislation permitting igaming, federal law (the Wire Act) pre-empted the state statute.

However, a decade later the DOJ remarkably narrowed its interpretation of the reach of the Wire Act. In 2009, the states of Illinois and New York were each considering plans to market lottery tickets to adults within their respective states. Both states planned to utilize the internet to do so, and importantly sought to use out-of-state transaction processors to facilitate the sales. New York planned to route transaction information to data centers in both New York and Texas through networks controlled in Nevada and Maryland; Illinois admitted that although its plan was intrastate, packets of relevant data might be routed across state lines via the Internet. Recognizing the interstate implications, and thus the applicability of the Wire Act under existing DOJ interpretation, both states took the position that the Wire Act did not apply to non-sports wagering. New York and Illinois asked DOJ for an advisory opinion as to “whether the Wire Act ... prohibit[s] state-run lotteries from using the Internet to sell tickets to in-state adults (a) where the transmission over the Internet crosses state lines, or (b) where the lottery transmits lottery data across state lines to an out-of-state transaction processor.”

After evaluation of the issue, the DOJ released its September 20, 2011, advisory Memorandum Opinion on those questions. Based upon an analysis of the text of the Wire Act, its legislative history, and the wordings of other federal anti-gambling bills, the DOJ significantly narrowed its interpretation of the Wire Act to be only prohibitory of online sports wagering, and not other forms of gambling. Specifically, it then held that “Interstate transmissions of wire communications that do not relate to a ‘sporting event or contest’ fall outside of the Wire Act,” and “Because the proposed New York and Illinois lottery proposals do not involve wagering on sporting events or contests, the Wire Act does not prohibit them.” While the DOJ opinion did not have the force of law of a judicial opinion, it was a clear signal that DOJ would not pursue criminal prosecutions at odds with its interpretation. With the Wire Communications Act now confined to interstate sports wagering under the 2011 DOJ interpretation, states were suddenly free to legalize other forms of interstate gaming, such as online poker.

The 2011 DOJ opinion narrowing the scope of the Wire Act was relatively short-lived. In the face of political pressure to revisit the 2011 opinion, on November 2, 2018, the DOJ reevaluated its viewpoint and issued another opinion reverting to its pre-2011 stance that the Wire Act applies “also to non-sports related betting or wagering.” Essentially, the 2018 opinion disagreed with the legal analysis underlying the 2011 version. The 2018 opinion originally had an effective date of April 15, 2019, but is now delayed until June 14, 2019. The New Hampshire Lottery Commission has filed suit challenging this reinterpretation, and other interested states have joined the litigation.³¹ While this latest change of position does not impact the clear prohibition against sports wagering, it does throw other forms of interstate gaming (such as lottery and poker) into flux. DOJ recognized the upheaval that would be triggered by its latest opinion in States that relied on the 2011 opinion to expand gaming offerings, noting that Congress could change the law if it chose to. In the event modifications to the Wire Act are sought, it is difficult in the current politically charged environment to predict whether a relaxation on the prohibition against interstate sports wagering would be included in any proposed amendments.

³¹ Dustin Gouker, “New Hampshire Lottery Takes DOJ To Court To Stop Enforcement Of Wire Act Opinion,” *Legal Sports Report*, February 21, 2019. <https://www.legalsportsreport.com/29238/nh-lottery-lawsuit-wire-act/>

E. Licensing

The overriding regulatory interest that permeates all effective legislative schemes for authorized sports betting operations is the recognized need to engender public confidence and trust in the integrity of the regulatory process and gambling operations. To this end, regulatory agencies worldwide are charged with the responsibility of ensuring that unsavory and nefarious influences are prohibited from infiltrating the authorized gambling industry. This mandate is especially important for an industry that historically has been susceptible to corrupt influences. The linchpin of effective regulation is to have a comprehensive licensing process designed to ferret out unsuitable persons and entities from participating in this highly lucrative industry. In order for the regulatory apparatus to succeed, it is imperative that licensure be limited to those persons and entities that are able to demonstrate conclusively their suitability. Accordingly, sports betting operators should be subject to the same level of probity review that is applicable to casino operators in Puerto Rico.

A cornerstone of sports betting regulation is that those involved in the control and operation of sports betting must affirmatively establish their suitability for licensure. Just as in other forms of gaming, a license should be considered a privilege earned by those who affirmatively meet the obligation of demonstrating their good character, honesty and integrity.

In those jurisdictions where sports betting has been authorized, such as New Jersey and West Virginia, the entities operating sports betting are required to be licensed to the highest standards. In this regard, an entity applicant for a sports betting operator license is required to establish the qualifications of the applicant and all of its natural person and entity qualifiers by clear and convincing evidence. This extends to the parent companies of the entity applicant. In addition, the sports betting service providers and suppliers of equipment used in the operation of sports betting must obtain the requisite license. Finally, the employees who are directly engaged in sports betting operations are required to be licensed.

Findings of suitability are based on established criteria: good character, honesty and integrity, and financial stability, integrity and responsibility. Notably, it is the affirmative obligation of all applicants to demonstrate their qualifications by clear and convincing evidence. In addition, there may be specific statutory disqualification criteria pertaining to the commission of certain criminal activity, in most cases, convictions for felonies as well as convictions for crimes involving fraud, moral turpitude, and illegal gambling activity will preclude a finding of suitability.

One affirmative licensing criterion involves a demonstration of financial stability, integrity and responsibility. This standard encompasses all financial aspects of the applicant, including managing, preserving and enhancing the assets of the individual or entity. In addition to a showing of basic financial solvency, the standard includes honesty and forthrightness in business practices.³² In *re Resorts Casino License Application*, 10 N.J.A.R. 244 (1979). The entity must demonstrate that it possesses the financial resources and business acumen to develop, construct and operate a casino establishment.

³² See *In re Resorts Casino License Application*, 10 N.J.A.R. 244 (1979).

A second affirmative licensing criterion relates to good character, honesty and integrity. This necessarily entails a showing of trustworthiness. The “whole man” is evaluated to assess whether the applicant has established his qualifications for licensure. Essentially, it is a predictive judgment as to how an applicant will conduct himself in the future based on evidence of prior conduct.³³

This affirmative license standard also includes personal and business associations which may reflect upon a person’s suitability. Whether a particular association negatively impacts on suitability depends upon many factors including the time of the association, its duration, its purpose, its intensity, its attenuation through third parties, the character of the associate, the associate’s reputation, the applicant’s knowledge of the associate’s reputation or character, the applicant’s exercise of reasonable efforts to determine the suitability of his associates, termination of the association and the reasons for termination of the association. In evaluating the impact of a business association with unsuitable persons or entities the paramount concern is whether there is an appreciable risk of influence over any aspect of business operations by an unsuitable person or entity.³⁴ It is imperative to ensure that unsavory influences are not permitted to participate in the sports betting gaming industry in order to preserve and foster public confidence and trust in the regulatory process and to achieve the lofty goals of the enabling legislation. Clearly, ties to organized crime figures or other nefarious individuals will adversely impact upon a person’s suitability.

The commission of criminal acts, whether they resulted in convictions or not, will be a significant and relevant factor in determining suitability. In this regard, the regulatory agency will consider such matters as whether the applicant engaged in fraudulent activity, committed bribery, or exhibited dishonesty in business practices. As noted, a felony conviction will be a disqualifying event. The prevention of money laundering activity is also a relevant factor in assessing suitability for licensure.

Casino gaming regulatory agencies routinely examine a gaming license applicant’s conduct in other gaming jurisdictions as part of its evaluation of the applicant’s good character, honesty and integrity. Historically, problems that surface in the conduct of gaming in one jurisdiction will have a negative impact upon an applicant’s ability to demonstrate its suitability elsewhere. In the initial New Jersey casino license proceeding in 1978 involving Resorts International, it was that company’s gaming experience in the Bahamas that framed the hearing. Resorts was forced to defend itself amidst allegations of widespread bribery and other corrupt practices relating to gaming activity in that foreign jurisdiction. For MGM Resorts International, it was that company’s willingness to partner with Pansy Ho in Macau that resulted in the company’s departure from the Atlantic City casino market. In Nevada, there is a specific statute holding a casino licensee responsible for the commission of acts in foreign jurisdictions that may adversely impact upon the stated public policies of the state’s gambling legislation.³⁵

³³ In re Bally’s Casino License Application, 10 N.J.A.R. 356, 366 (1982).

³⁴ See In re Resorts Casino License Application, *supra*, 10 N.J.A.R. at 251.

³⁵ NRS 463.720.

A critical aspect of the licensing and investigative process³⁶ involves a determination by the regulatory agency regarding the identity of the qualifiers of the gaming license applicant. Generally, the persons and entities that have the ability to exercise significant control, direction or influence over the business operations and decision-making of the gaming licensees and applicants are subject to strict regulatory scrutiny and oversight as qualifiers. In this regard, owners, officers, directors, and principal employees are classified as qualifiers of the applicant. The Chief Executive Officer, Chief Operating Officer, Chief Financial Officer and Chief Technology Officer of the applicant and its parent company would definitely be included as qualifiers for entity applicants.

An overriding regulatory concern is the determination of beneficial ownership. The decision regarding the identity of qualifiers varies in different jurisdictions. For example, in New Jersey, beneficial ownership extends to all shareholders holding over 5 percent of the equity securities of a public corporation, whereas in Nevada, the threshold for designation as a qualifier is 10 percent. In addition, the rules pertaining to institutional investors may vary among the states. In terms of determining the qualifiers for sports betting applicants, the same rules governing casino gaming licensees in Puerto Rico should extend to the sports betting operators and the other entities participating in the sports betting operations.

There are four distinct categories of licensure for sports betting operations. The first is applicable for the licensed owner of the facility where sports betting will take place. For sports betting, the general rule being adopted in various jurisdictions is to require a sports betting operator license for the entity ultimately responsible for sports betting operations. Accordingly, casino licensees in New Jersey are required to obtain a sports wagering license to operate sports betting at their casino facilities.³⁷ In the event that sports betting is authorized for the licensed casinos in Puerto Rico, the licensed casinos will be eligible to obtain a sports betting operator license to operate sports betting at their facility. The same holds true for the licensed off-track betting parlors in the country if sports betting is permitted at those locations.

Generally, the sports betting operator will contract with a third party to be the sports book service provider. That third-party entity would be responsible for setting the betting odds, collecting wagers and making payoffs. This third-party entity would also need to be licensed, giving rise to the second category of licensure. Such entities are being required in other gaming jurisdictions to obtain a vendor license. Thus, for example, in New Jersey, the companies that operate the sports books at the various casinos are required to obtain a casino service industry license.³⁸ In order to obtain the vendor license, the applicants need to demonstrate their good character, honesty and integrity, as well as their financial stability, integrity and responsibility. The license period would be the same as for vendors supplying goods and services to the casinos.

³⁶ In Puerto Rico, the Commissioner of Financial Institutions conducts casino licensing investigations.

³⁷ N.J.S.A.5:12A-11.

³⁸ N.J.S.A.5:12A-11g.

A third category of licensure pertains to the vendors that supply equipment used for sports betting operations. These entities should also be required to be licensed gaming vendors. The license period should be equivalent to that for vendors providing goods and services to the casinos.

The fourth category of licensure pertains to the employees engaged in sports betting operations. These employees should be required to be licensed, in similar fashion to the license requirements for employees of the casinos. The license should be required for all employees working in the designated gaming area where sports betting is conducted, and for all employees who perform services related to sports betting operations. Supervisory employees should require casino key employee licenses, and all other employees directly involved in wagering activities should be licensed as casino employees. The license periods should be the same as for employees of the casinos.

If sports betting is authorized outside of the casinos, the same principles and guidelines for licensing should apply. Hence, with respect to sports betting outside of the casinos, the sports betting operators, the sports betting service providers, the vendors supplying services and equipment for sports betting operations, and the employees who are directly engaged in sports betting operations would all need to be licensed as set forth above. In addition, each entity would be responsible for demonstrating the suitability of all of its natural person and entity qualifiers, as set forth above.

Each person required to be licensed to engage in sports betting operations should submit an application for licensure and be subject thereafter to a background investigation. Upon completion of the background investigation, a determination will be made by the regulatory agency regarding suitability for licensure.

Spectrum believes that, with respect to sports betting service providers, Puerto Rico should strongly consider accepting licensing by another gaming jurisdiction that it specifically determines to have similar licensing requirements as evidence the applicant satisfies the sports betting service provider licensing requirements. We note that West Virginia implemented a similar licensing provision.³⁹

F. Selection of Sports Betting Supplier

There are three broad operating model options available to an operator or jurisdiction seeking to offer sports betting to consumers, with differing risk profiles. These are summarized here, with some scope to adopt features within competing models via a hybrid approach.

- **White Label:** Operating model in which the client provides the marketing and, typically, an existing database of consumers, but the entire sportsbook function and supporting services is provided, and managed by, a licensed third-party. Risk is usually borne entirely by the third party.
- **Managed Services:** Operating model in which the client provides marketing and manages the resultant data base of consumers, but a wide range of operational functions, such as trading, risk-management, customer support and management reporting is provided by a licensed third party. Risk is typically shared between the parties.

³⁹ §29-22D-7b of Article 22D, West Virginia Lottery Sports Wagering Act.

- **In-House:** Operating model where the client provides the marketing, manages the database of consumers, and operates the entire sports-book function itself, using licensed third-parties for selected support activities. Risk is entirely borne by the client.

The table below examines these competing models, providing additional insight to an operating-model decision-making process using the following factors:

- **Volatility:** The direct impact, whether positive or negative, of sporting results and betting patterns upon business-plan expectations of gross win/profits
- **Profit/ROI:** The overall retained share of gross-win profit after any revenue-share arrangements with third-parties
- **Flexibility:** The ability to adapt the consumer offer, introduce new products, bets, markets or sports, or integrate third-party content
- **Management:** The overall burden of required management, headcount, supporting staff, internal structure and function

Figure 18: Operating model summary comparison

Operating Model	Volatility	Profit/ROI	Flexibility	Management
White Label	Lower	Lower	Lower	Low/Medium
Managed Services	Medium	Medium	Medium	Low/Medium
In-House	Higher	Higher	Higher	Higher

Source: Spectrum Gaming Group

Deciding which of these operating models is optimal for the Commonwealth will depend on a variety of individual circumstances, but essentially it will depend upon the outcome of a critical assessment of two key criteria: control and risk vs. reward.

- **Control** includes:
 - The degree of influence required over distribution channels, products, markets and bets offered to consumers;
 - The degree of influence required, and decision-making control, over trading policy and trading decisions; and
 - The degree of influence required over the ability to adapt the consumer offer.
- **Risk vs. reward** includes:
 - The internal attitude to risk and reward; overall degree of comfort with volatility;
 - The degree of acceptance with the concept of higher-risk/higher potential reward; and
 - The degree of acceptance with the concept of higher-risk/higher potential losses.

Note that the following three risk models were considered by the Rhode Island Lottery in adopting its sports-betting regime, which launched in late 2018:

- **Option 1:** Fully-Managed-Services Model, in which the service provider provides all services and functions as scoped within the RFP and manages entire sports-betting risk on behalf of the Lottery. Commercial offer to reflect economic model where resultant gross-win performance/risk is retained/borne entirely (100 percent) by the service provider.

- **Option 2:** Fully-Managed-Services, Shared-Risk Model, in which the service provider provides all services and functions as scoped within the RFP and manages sports betting on a shared-risk basis on behalf of the Lottery. Commercial offer to reflect economic model where resultant gross-win performance/risk is shared/borne equally (50%/50%) between the Service Provider and Lottery.
- **Option 3:** Fully-Managed-Services, Shared-Risk Model, in which the service provider provides all services and functions as scoped within the RFP, and manages sports betting on a shared-risk basis on behalf of the Lottery. Commercial offer to reflect economic model where resultant gross-win performance/risk is shared (75%/25%) between the Service Provider, at 75 percent, and the Lottery at 25 percent.

Potential suppliers were required to submit cost proposals for each risk model. Rhode Island chose the Fully-Managed-Services model, with the service provider bearing all risk.

Depending upon which overall risk-model and jurisdictional scheme is chosen, together with which distribution channel(s) are preferred, the Commonwealth and/or the individual casino properties will need to select a third-party supplier of sports betting services. When selecting such a third-party supplier, it is important to recognize that different operators, at different stages of their development, will often have a unique set of relevant criteria and relative priorities when making such decisions. However, the following criteria provided below are regarded as likely essential/common to most:

Recommended Key Criteria, (Summary Benefit)

- Target Market: able to satisfy existing/forecast demand
- Product Range: able to deliver suitable, in-demand products
- Reputation/Track Record: experienced and proven, preferably in-market
- Customer Usability/UX: design/deliver sites, apps that consumers like to use
- Commercials/Costs: competitive, pragmatic commercials and related costs
- Regulatory Conditions: proven/able to meet required regulatory standards
- Proven Reliability/Scalability: maximum uptime, ability to scale quickly
- Technical Infrastructure/Language: modern infrastructure, no legacy issues
- Operations/Integration Protocols: proven integration of third-party content
- Data Analytics/Access: ability to support/service data science, BI demands
- Development Pipeline/Track Record: ability to deliver new/enhanced product

Based on the design of an anticipated Request for Proposal (“RFP”) process designed to evaluate competing sports betting/operating platform providers, Spectrum recommends a “weight and rate” approach, whereby each individual criterion is both *weighted* (an evaluation on a scale of lower- to higher-importance from the buyer’s perspective) and *rated* (an evaluation of the seller’s performance, scored on a similar scale), designed to provide an overall score reflecting both dimensions.

This approach enables objectivity; by undertaking identical “weight and rate” exercises, for all competing suppliers, it helps identify what is important to the Commonwealth and provides an overall score, for each competing supplier, at an objective level. It is useful as both a decision-making aid, and helps with go/no-go decisions, including the shortlisting of potential suppliers, and also facilitates commercial negotiation and discussions with such suppliers.

Once undertaken, competing suppliers can be objectively compared/contrasted, and benchmarked against both one another *as well as against* a pre-determined scoring range, with associated management actions to support commercial negotiations, and help make go/no-go decisions. The following table provides one example of such a decision-making framework.

Figure 19: Sports betting supplier, go/no-go decision-making framework

Weighted/Rated Score Range	Acceptability Range	Management Action
< 65%	Unacceptable	Reject Supplier
66% - 75%	Borderline Acceptable Range	Reject or Negotiate Terms
76% - 85%	Acceptable Range	Negotiate Terms
86%+	Ideal/Optimum Range	Negotiate Terms

Source: Spectrum Gaming Group

1. Supplier Commercial Model

The creation of a successful retail and non-retail sports betting operation is a difficult and challenging enterprise, but the US market is a potentially highly lucrative one, and there are a wide range of suppliers vying for market position. Spectrum has already noted high levels of commercial activity from the supply-side within the market, including new US market entrants, such as SBTech and Kambi, as well as incumbent US suppliers such as IGT and Intralot.

The following are licensed US suppliers of sportsbook operations and technology

- Business-to-business suppliers:
 - Game Account Network
 - Gaming Innovation Group
 - IGT
 - Kambi
 - SB Tech
 - SG Digital
 - Stadium Technology
- Business to consumer suppliers:
 - Bet365
 - BetStars
 - CG Technology
 - DraftKings
 - Paddy Power Betfair/FanDuel
 - PointsBet
 - William Hill US

The results from William Hill US provides insight into profitability for sportsbook suppliers. Figure 20 below illustrates a sample profit-and-loss (“P&L”) statement for a Nevada sportsbook. William Hill operates approximately 150 of the 192 locations in Nevada both on the retail side and digital. William Hill US accepted \$1.443 billion of wagers in 2018 and recorded a hold percentage of 7.3 percent, generating \$106 million of GGR.

The cost-of-sales line item refers to two separate tax items required to conduct sports betting business in Nevada. The federal excise tax, which is 0.25 percent of handle and payable to the federal government and the state gaming tax which is 6.75 percent of GGR, payable to the State of Nevada. We note this P&L generated a higher than normal margin of 41 percent, in part because the gaming tax rate in Nevada is the lowest in the country.

The remaining operating costs of \$53 million include labor, technology and marketing expenses. Technology expenses include platform provider costs, account/player management costs and geo-location technology, which ensures wagers do not cross state lines.

For 2018, William Hill generated \$44 million of earnings before interest, taxes, depreciation and amortization (“EBITDA”) and recorded a 41 percent margin, which is significantly higher as compared to the last three years. We note that these results are only Nevada which is subject to the lowest gaming tax rate in the United States. In states with higher tax rates the EBITDA margins will be lower.

Figure 20: Income statement for William Hill US, 2015 – 2018

William Hill US	2018	2017	2016	2015
Amounts Wagered	\$1,443	\$1,153	\$944	\$780
Hold %	7.3%	6.3%	6.2%	6.5%
Net revenue	106	73	59	51
Cost of sales ¹	(10)	(6)	(5)	(5)
Operating costs	(53)	(44)	(34)	(32)
EBITDA	\$44	\$23	\$19	\$14
EBITDA Margin	41%	31%	33%	27%

Source: William Hill. ¹ Federal Excise Tax plus Nevada Gaming Tax net of certain adjustments

In Figure 21 below we illustrated a sample profit and loss statement with a 15 percent tax rate, which results in a 27 percent profitability margin. Note the largest expense related to sports betting is customer marketing, especially as the business is in its ramp-up stages. A sportsbook is different than a casino in that there is significantly less ability to provide complementary items such as hotel rooms, food and beverage or event tickets. For sports betting the complementary items are provided in the form of free play or wager-matching.⁴⁰ These types of incentives are helpful in generating new customer accounts but the reward must be balanced with the risk of increased exposure adopted by the operator.

⁴⁰ For example: Every \$100 bet, the sportsbook operator will match the bet.

Figure 21: Illustrative profit-and-loss statement for a sportsbook at 15 percent tax rate

Assumptions	
Total Wagers	\$1,000
Hold %	6.00%
Labor & Admin/GGR (%)	25.00%
Marketing/GGR (%)	33.00%
Gaming Tax Rate	15.00%
Federal Excise Tax (% Handle)	0.25%
Sample Income Statement	
GGR	\$60
Less: Federal Excise Tax	(\$3)
Less: Gaming Tax	(\$9)
Gross Profit	\$49
Less: Labor/Admin	(\$15)
Less: Marketing Spend	(\$20)
Gross Profit	\$14
Profit Margin	23%

Source: Spectrum Gaming Group

G. Next Steps

Spectrum believes that by 2023 there could be between 25 and 30 states that offer legal sports betting, all of which already offer casinos gaming and a lottery. As a commonwealth that also has a robust casino industry and a successful lottery, in addition to pari-mutuel wagering and retail gaming devices, it makes sense for the Government of Puerto Rico to add sports betting to its overall scheme of legal gambling activities. The addition of sports betting would accomplish the following:

- Provide additional revenues – direct and indirect – for the casino industry, which plays an important role in the island’s tourism industry by offering nearly 4,000 hotel rooms;
- Provide an additional visitation incentive or entertainment option for tourists;
- Provide additional fiscal receipts for Commonwealth through the imposition of a tax on sports betting gross gaming revenue; and
- Reduce or potentially eliminate the illegal sports-betting market.

Assuming the Commonwealth legalizes sports betting, the first step would be determine the scope, or accessibility, of sports betting. Spectrum understands that the Government desires to make sports betting widely available. Such a goal will surely maximize the revenue-generating potential of sports betting; however, widespread distribution need not occur at the outset. We note that of the six newly active US sports-betting states, each commenced sports betting by limiting it to the physical casinos or racetracks before allowing online betting or other options.

Puerto Rico could follow that precedent with a graduated approach that begins with sports betting being offered only at casinos and the racetrack. As entities that are already well regulated by the PRTC Gaming Division and the Horse Racing Board, respectively, the addition of a new, highly regulated gaming activity should be easily absorbed by these operators and more easily monitored by the regulators. This approach will allow the Commonwealth to narrow its initial focus, providing for a more effective introduction of sports betting. As noted in Section D of this chapter, there no precedent among the newly active US states for a broad rollout of legalized sports betting; each has taken – or is taking – a careful, stepped approach.

Alternatively, the Commonwealth could determine to authorize sports betting in locations outside of the casinos, provided they fall within the purview of a comprehensive regulatory system.

Concurrent with legalization of sports betting is the determination of which agency should regulate the activity. In our judgment, there should be a single regulatory agency for regulating all sports betting in the commonwealth. Moreover, whatever agency is selected for this task, it must be entrusted with broad oversight responsibilities to ensure public confidence and trust in the integrity of the regulatory process and sports betting operations.

Further concurrent with legalization is setting the tax rate on gross gaming revenue. As discussed in this report, Spectrum recommends a rate of between 10 percent and 15 percent, whether this is the actual rate or an effective rate blended between among the rates offered via retail (i.e., in facilities) and digital (i.e., internet/mobile). Based on examples in Europe and in Spectrum’s experience, rates below this amount will not materially improve the performance of, or participation in, sports betting and would only serve to reduce fiscal receipts to the Commonwealth. On the other hand, a tax rate higher than this range is likely to result in worse odds and fewer promotions for bettors, thus making the activity less attractive for players – and potentially maintaining interest in the illegal sports-betting market.

Based on our understanding of the Government’s thinking, authorization of sports betting distribution could include:

- **Digital:** Offering sports betting in digital format would effectively make the activity easily accessible to the vast majority of its citizens. We note that as of March 2017, the island had an internet penetration rate of 83 percent.⁴¹ The critical question in offering digital sports betting is this: Which entities can offer the activity? Options include:
 - Casinos and the racetrack, either their own brand or through “skins,” in which a limited number of third parties can offer sports betting via their own brand that is tied to the casino’s license
 - Other licensed entities, such as cockfighting venues or OTBs
 - Sports-betting providers directly
 - The lottery

For digital betting, the options are many. As noted earlier in this chapter, one possible model consistent with the Commonwealth’s goals would be to permit each licensee to contract with a maximum number of defined retailers (OTBs, cockfighting venues) for operation of satellite venues. Such a system would place the onus on casino licensees to ensure its satellite operations are in strict conformity with applicable regulations lest violations impact its plenary gaming license. Both casino licensee and (licensed) satellite retailer could derive a benefit from integrated brands. Another possible consideration would be similar to Delaware’s model, wherein plenary sports wagering is offered only at casinos, with retail outlets able to offer versions limited in amount and scope.

⁴¹ Miniwatts Marketing Group, “Internet World Stats.” <https://www.internetworldstats.com/carib.htm> (accessed March 21, 2019)

- **Off-track-betting venues:** As these are sometimes small, even tiny, facilities, such venues may be served by self-service betting terminals (“SSBTs”), or kiosks.
- **Cockfighting venues:** Congress in December 2018 outlawed cockfighting in US territories, effective December 2019. The cockfighting venues could be repurposed as designated sportsbooks, perhaps subject to minimum investment, employment and/or food and beverage service requirements. Such facilities, however, would compete against sportsbooks within the casinos, as they would presumably provide a similar sociable, entertaining experience.
- **Public zones:** Spectrum understands that the Government envisions certain heavily trafficked zones, such as the convention center area in San Juan, being available for sports betting. Such areas could be served by SSBTs and/or indoor-outdoor bars/restaurants that feature large-format odds boards and multiple television monitors featuring live sports.

In determining the extent and expansion of sports betting in Puerto Rico, Spectrum recommends that the Government monitor the expansion of sports betting in the six states that have commenced sports betting since the Supreme Court decision. Each launched sports betting by allowing the activity only at its licensed casinos and/or racetracks and then, after a period of months, phased in the online component. There is no precedent in the states for expanding sports betting to physical locations outside of casinos or racetracks, although the DC Lottery is expected later this year to launch sports betting in approved locations such as stadiums, arenas, restaurants and other establishments, as well as on mobile devices.

The desire by the Commonwealth of Puerto Rico to add sports betting to its offering of legal gambling options is logical and understandable from both a policy and fiscal perspective. As sports betting would be a high-profile and potentially widespread form of gambling on the island, the Commonwealth should proceed with care. It is far easier to add options and loosen regulations over time than it is to restrict the activity after it has commenced.

About This Report

This report was prepared by Spectrum Gaming Group, an independent research and professional services firm founded in 1993 that serves private- and public-sector clients worldwide. Our principals have backgrounds in operations, economic analysis, law enforcement, regulation and journalism.

Spectrum holds no beneficial interest in any casino operating companies or gaming equipment manufacturers or suppliers. We employ only senior-level executives and associates who have earned reputations for honesty, integrity and the highest standards of professional conduct. Our work is never influenced by the interests of past or potentially future clients.

Each Spectrum project is customized to our client's specific requirements and developed from the ground up. Our findings, conclusions and recommendations are based solely on our research, analysis and experience. Our mandate is not to tell clients what they want to hear; we tell them what they need to know. We will not accept, and have never accepted, engagements that seek a preferred result.

Our clients in 47 countries on six continents have included government entities of all types, gaming companies (national and international) of all sizes, both public and private. In addition, our principals have testified or presented before the following governmental bodies:

- British Columbia Lottery Corporation
- California Assembly Governmental Organization Committee
- Connecticut Public Safety and Security Committee
- Florida House Select Committee on Gaming
- Florida Senate Gaming Committee
- Georgia House Study Committee on the Preservation of the HOPE Scholarship Program
- Georgia Joint Committee on Economic Development and Tourism
- Illinois Gaming Board
- Illinois House Executive Committee
- Indiana Gaming Study Commission
- Indiana Horse Racing Commission
- International Tribunal, The Hague
- Iowa Racing and Gaming Commission
- Louisiana House and Senate Joint Criminal Justice Committee
- Massachusetts Gaming Commission
- Massachusetts Joint Committee on Bonding, Capital Expenditures, and State Assets
- Michigan Senate Regulatory Reform Committee
- National Gambling Impact Study Commission
- New Hampshire Gaming Study Commission
- New Jersey Assembly Regulatory Oversight and Gaming Committee
- New Jersey Assembly Tourism and Gaming Committee
- New Jersey Senate Legislative Oversight Committee
- New Jersey Senate Wagering, Tourism & Historic Preservation Committee
- New York Senate Racing, Gaming and Wagering Committee
- New York State Economic Development Council
- Ohio House Economic Development Committee
- Ohio Senate Oversight Committee
- Pennsylvania Gaming Control Board

- Pennsylvania House Gaming Oversight Committee
- Puerto Rico Racing Board
- US House Congressional Gaming Caucus
- US Senate Indian Affairs Committee
- US Senate Permanent Subcommittee on Investigations
- US Senate Select Committee on Indian Gaming
- US Senate Subcommittee on Organized Crime
- Washington State Gambling Commission
- West Virginia Joint Standing Committee on Finance
- World Bank, Washington, DC

Disclaimer

Spectrum has made every reasonable effort to ensure that the data and information contained in this study reflect the most accurate and timely information possible. The data are believed to be generally reliable. This study is based on estimates, assumptions, and other information developed by Spectrum from its independent research effort, general knowledge of the gaming industry, and consultations with the Client and its representatives. Spectrum shall not be responsible for any inaccuracies in reporting by the Client or its agents and representatives, or any other data source used in preparing or presenting this study. The data presented in this study were collected through the cover date of this report. Spectrum has not undertaken any effort to update this information since this time.

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