GAMING STUDY:

Analysis of Current and Potential New Gaming Activities in North Carolina

Prepared for North Carolina Education Lottery
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Executive Summary

Pursuant to Senate Bill 574, the North Carolina Education Lottery ("NCEL," "the Lottery" or "Client") engaged Spectrum Gaming Group ("Spectrum," "we" or "our") to "provide an independent analysis of current North Carolina gaming activities (including those prohibited by law), potential new gaming activities and whether a Gaming Commission should be created in North Carolina."

I. Prohibited Gaming in North Carolina

Unregulated gaming – which includes that which is expressly illegal and that which falls into a "gray area" of the law – is rampant in North Carolina, as it is in many states. Tens of thousands of unregulated gaming machines operate in plain sight throughout the state.

Because they are unregulated enterprises, the operators of such gaming devices do not pay a State gaming tax and are not subject to the customary gaming rules and regulations established by the State of North Carolina and the Eastern Band of Cherokee Indians.

Most significant, illegal operators, by definition, are not subject to abiding by a core principle of legalized gaming throughout the United States: That a license to operate gaming is a privilege limited to those who demonstrate their good character, honesty and integrity.

Further, illegal sports betting will compete with the legal sports betting expected to commence this year at the Harrah's Cherokee casinos.

Those games already compete to varying degrees with – and on an unlevel playing field against – the following authorized forms of gambling:

1. Traditional lottery, which is operated and regulated by the North Carolina Education Lottery.
2. Tribal gaming, which is offered and regulated by the Eastern Band of Cherokee Indians ("EBCI") at its Harrah's Cherokee Casino Resort and Harrah's Cherokee Valley River Casino & Hotel in the western part of the state. Games include slot machines, table games, and poker; sports betting could commence later this year. Both casinos are operated by Caesars Entertainment under agreement with the EBCI.
3. Charitable gaming, which is offered by registered organizations and regulated by the Alcohol Law Enforcement ("ALE"), a division of the Department of Public Safety. Games include bingo,[1] raffles and "game nights."

[1] Low-stakes, non-charitable "beach bingo," an activity Spectrum would characterize as social gaming, is also authorized in North Carolina.

North Carolina law states that it is illegal for any person or organization to operate a game of chance or to play or bet on any game of chance that involves winning money, property or anything of value absent State authorization. Gambling is punishable as a Class 2 misdemeanor. Alcohol Law Enforcement Gaming Unit Special Agents are directly responsible for enforcing criminal laws pertaining to alcohol, controlled substances, tobacco, lottery, bingo and gambling.

Specific gambling violations in the statute, Article 37, Chapter 14, include:

- Advertising and / or dealing lotteries as an unlicensed agent
- Selling "numbers" tickets, such as raffles and certificates
- Establishing or participating in a pyramid scheme
- Allowing illegal gambling on one's property or business
- Dealing illegal slot machines and/or gambling tables
- Manufacturing illegal slots and/or gambling devices

Moreover, it is illegal to operate any slot machine or device where the user may become entitled to receive any money, credit, allowance, or anything of value. A slot machine is a device where players insert coins, slugs, or tokens and the game of chance may result in winning money or something of value. The statute further provides that it is also illegal to manufacture, own, store, keep, possess, sell, rent, lease, let on shares, lend or give away, transport or to permit the operation of, any slot machine. It is also illegal to allow slot machines to be stored on one's property for use.[2]

Through interviews, research and our experience studying all manner of gaming throughout the country, Spectrum endeavored to understand the extent of unregulated gaming machines, sports betting and pari-mutuel wagering in North Carolina. We also sought to calculate the potential revenues these forms of gaming are generating, as well as their potential State gaming-tax receipts for the State of North Carolina.

There are two primary caveats with this exercise:

1. It is impossible to know the precise extent or performance of unregulated gaming in North Carolina. We developed reasonable ranges based on our research and experience for the purpose of showing the possible size of these activities in North Carolina, which may help the State establish public policy toward expanded legal gaming.
2. We provide our estimates of revenue and tax receipts of unregulated gaming activities "as is"; i.e., we estimate them in their current, unregulated state. If they

[2] General Statutes, Article 37, section 14-301.

were to become legal and regulated, the revenues and corresponding tax receipts could be significantly higher, because they would be well marketed and advertised.

The following table summarizes our findings and estimates regarding unregulated gaming in North Carolina:

Table A: Potential performance range, State annual fiscal receipts from unregulated gaming in North Carolina

Gaming Segment	Distribution Channel	Estimated Performance	Assumed State Gaming-Tax Rate	State Annual Fiscal Receipts Range
Gaming Machines	Estimated 90,000 games at retail locations in estimated 90 counties	$456M to $1.7B in GGR	30% of GGR	$137M to $500M
Sports Betting	Online, local bookmakers	$193M to $237M in GGR	16% of GGR	$31M to $38M
Pari-Mutuel Horse Racing	Online	Handle: $13.7M Takeout: $3.0M	1% to 2% of handle	$0.137M to $0.274M

Source: Spectrum Gaming Group. GGR = gross gaming revenue.

In total, illegal gaming could be a nearly $2 billion industry in North Carolina and thus depriving the State of as much as $538 million in State gaming taxes.

II. Gaming Today in North Carolina

There are three forms of legal gaming today in North Carolina, as follows.

North Carolina Education Lottery

The North Carolina Education Lottery commenced operations in 2006 with the sale of its first scratchoff tickets. By the end of 2006, NCEL began selling Powerball and other jackpot and draw games. NCEL surpassed the $1 billion threshold by its second year and has continued to experience steady growth. A brand revitalization campaign to freshen its existing product portfolio has resulted in increasing total sales by more than $1 billion since 2014, surpassing the $2 billion sales threshold in 2016, then reaching $2.86 billion in FY 2019.

As with all lotteries, when gross sales increase, the corresponding net revenue or earning to the state increases as well. In FY 2019, NCEL raised $709.2 million for education programs in North Carolina. Scratchoff tickets continue to be the Lottery's most popular product, generating $1.91 billion in sales, or 66.8 percent of total sales. The Lottery launched 57 new scratchoff games during the year.

It is noteworthy that NCEL has accomplished steady growth in gross sales and earnings directed to the State without significant increases in its administrative expenses, particularly payroll and advertising, thus growing its operating margin. In the last five fiscal years, NCEL has added only six employees while increasing game sales (operating revenue) by more than $1 billion.

NCEL has outperformed lottery industry trends. In 2015, the Lottery offered the first $30 price point for scratchoff tickets to be offered in North Carolina. NCEL offered its first scented scratchoff ticket in 2015, when it developed the BBQ Bucks ticket. It is this type of continued effort to innovate that will lead to continued success for NCEL in the future.

At the end of 2019, NCEL had a total of 7,049 lottery retailers. Since the introduction of Carolina Keno in 2017, NCEL has grown the number of bars and restaurants. Growing the number of bars and restaurants offers a significant growth potential both for traditional lottery products and potential new products like sports betting. Spectrum recommends that NCEL continue to focus on recruiting bars and restaurants to not only sell traditional lottery products but also as a potential vehicle to grow other game offerings.

Cherokee Casinos

The Harrah's Cherokee casinos, owned by the EBCI and operated by Caesars Entertainment, are collectively a major gaming operation by any standard. The Cherokee resort in Cherokee has 1,108 hotel rooms – making it the largest hotel in the state – along with more than 3,100 slot machines, 147 live table games including poker, and, expected this year, a sportsbook. It has myriad non-gaming amenities, including a 3,035-seat event center. The smaller and newer Valley River in Murphy includes 300 hotel rooms, 1,023 slots, 62 live table games, and, expected this year, a sportsbook.

The combined Cherokee casino operation generates estimated net revenue of approximately $900 million per year, with 70 percent of that amount being generated by the flagship Cherokee resort, making that property one of the highest-grossing casinos in the country.

The EBCI has invested more than $1.2 billion in its casinos, excluding a current $330 million expansion that includes a 725-room hotel, 83,000 square feet of conference space, and a 2,000-space parking garage, expected to be completed in 2021.

Both Cherokee casinos are major employers, with the larger Cherokee casino employing roughly 3,000 and Valley River roughly 1,200. The Cherokee expansion will create another 400 permanent jobs, and the sportsbooks at both casinos will create a combined 50 permanent jobs.

Charitable Gaming

There are three types of charitable gaming in North Carolina, all of which are overseen by Alcohol Law Enforcement ("ALE"), a division of the Department of Public Safety:

- Game nights usually consist of casino-type games such as roulette, blackjack, poker and craps. While they have been common in North Carolina for many years, they were technically illegal until June 1, 2019. These appear to be growing in popularity, with sponsoring organizations retaining the services of a qualified vendor that provides the equipment and qualified gaming personnel.

- In North Carolina as in other states, bingo is in decline because it is an antiquated, paper-based game whose mostly older customer base is dying out and not being replaced. Younger generations generally prefer faster, more technologically advanced games. Over the most recent 10-year reporting period, North Carolina gross bingo receipts have declined by 49 percent, to $10.8 million in 2018.
- Raffles are not uncommon, and while there are laws that set rules for raffles, the State does little more than enforce those rules when it receives complaints. ALE does not track gross receipts for this activity.

Economic Impacts

Legal gaming in North Carolina has a positive economic contribution to the state. This finding holds even after accounting for the reallocation of consumer spending away from other instate activities toward gaming. In an average year, gaming creates or supports 23,500 jobs and nearly $2.4 billion of value added, also known as gross state product. Business revenues, or output, average $3.8 billion per year. In addition, gaming supports nearly $1.5 billion of income annually to North Carolinians, of which roughly $1.3 billion is disposable income. Lottery supports approximately 63 percent of these impacts while tribal gaming and charitable gaming support 36 percent and 1 percent, respectively.

Table B: Summary economic impacts of existing gaming in North Carolina

	Annual Average	10-Yr. Cumulative
Total Employment (in job years)	23,506	235,060
Output (M)	$3,760	$37,596
Value-Added (M)	$2,351	$23,507
Personal Income (M)	$1,535	$15,351
Disposable Personal Income (M)	$1,331	$13,309

Source: Spectrum Gaming Group, PI+

III. Potential New Gaming Activities for North Carolina

Spectrum projected the revenues and State tax receipts for forms of gaming that would be new to North Carolina, as follows:

- Casino gaming (commercial; i.e., non-tribal)
- Distributed gaming (e.g., video gaming terminals at bars, taverns and fraternal organizations or other authorized locations)
- Internet casino gaming (casino-style gaming online; commonly called “igaming”)
- Sports betting (as operated by a state lottery)
- Pari-mutuel horse racing
- Ilottery (e.g., “digital instant” and draw games played online, as offered through a state lottery)

It is critical to note that the following projections assume that each form of gaming is offered exclusively. That is, for example, only distributed gaming would be added to the existing North Carolina gaming landscape – and none of the other five potential gaming options listed above would be implemented along with distributed gaming. The purpose of this assumption is to demonstrate to the State of North Carolina the full potential of each form of legal gambling.

We also assume that the State of North Carolina would move to eliminate the widespread unregulated gaming, which would compete with the new, legal forms of gaming noted here. Again, the purpose of this assumption is to demonstrate the full potential of each form of legal gambling.

The following table summarizes our five-year forecasts for each of the six forms of potentially new gaming analyzed in this report:

Table C: Five-year forecasts for potentially new forms of gaming in North Carolina

(Millions)	Year 1	Year 2	Year 3	Year 4	Year 5
	Performance				
Casino Gaming (GGR)	$1,615.4	$1,830.8	$2,153.9	$2,207.8	$2,240.1
Distributed Gaming (GGR)	$476.3	$1,062.9	$1,859.3	$2,163.7	$2,481.9
Internet Casino Gaming (GGR)	$123.6	$149.8	$197.9	$247.1	$300.5
Sports Betting (GGR)*	$113.2	$214.2	$349.0	$357.7	$366.7
Pari-Mutuel Horse Racing (Total Revenue)	$5.1	$10.8	$14.4	$14.6	$14.7
Ilottery (GGR)	$23.6	$61.0	$98.6	$118.0	$145.9
	State Tax Receipts				
Casino Gaming (22% of GGR)	$355.4	$402.8	$473.9	$485.7	$492.8
Distributed Gaming (30% of GGR)	$142.9	$318.9	$557.8	$649.1	$744.6
Internet Casino Gaming (15% of GGR)	$18.5	$22.5	$29.7	$37.1	$45.1
Sports Betting	*(Assumed state lottery product; no State tax)*				
Pari-Mutuel Horse Racing (2% of all wagers)	$0.8	$2.1	$2.7	$2.8	$2.8
Ilottery	*(Assumed state lottery product; no State tax)*				

Source: Spectrum Gaming Group. *Sports betting forecast is for North Carolina without first-mover advantage.

Key aspects of each potentially new form of gaming include the following:

- **Casino:** We determined, and assumed, the state could reasonably host nine commercial casinos offering nearly 19,000 slot machines and 650 table games. Assuming that Virginia would have operating casinos along its southern border, we project that North Carolina casinos could attract $153 million in out-of-state GGR and $244 million from the existing Harrah's Cherokee casinos.
- **Distributed gaming:** Over a five-year rollout, North Carolina would offer 34,000 video gaming terminals in authorized locations, with its GGR potential higher than that of commercial casinos. The State fiscal receipts would be higher, too, as we assume there would be a higher gaming-tax rate than with casinos. This form of gaming would in some respects replace the unregulated gaming that is pervasive throughout North Carolina, as has been the case in Illinois.

- **Internet casino gaming:** This would be operated without being tied to land-based casinos, a first in the United States. As such, because of the lack of competition from casinos, we assumed North Carolina igaming would perform at least 25 percent above the per-capita results in New Jersey, which is the only mature igaming market in the country.
- **Sports betting:** This would be offered via NCEL both online and via 5,000 self-service betting terminals ("SSBTs") at authorized Lottery retailers, including bars and restaurants. We assume a three-year rollout of the SSBTs. Spectrum developed forecasts for North Carolina both with and without a first-mover advantage; i.e., it would offer sports betting before South Carolina and Virginia. To be conservative, the forecast in Table C above presents sports betting GGR without first-mover scenario, as Virginia may implement it first.
- **Pari-mutuel horse racing:** We assumed one racetrack would open in the Charlotte area with a 60-day live race meet by Year 3 and that account wagering and off-track betting would be permitted. It is unlikely that a racetrack would be commercially viable and is unlikely to be developed without having the ability to offer historical horse racing machines, which are slot-like gaming devices. The cost of State regulation would be higher than the State's fiscal receipts.
- **Ilottery:** NCEL would offer "digital instant" games online, a lottery-style game also offered by other state lotteries. We used the successful Michigan ilottery as a benchmark to forecast potential sales for North Carolina; for North Carolina, however, we applied a premium to our baseline forecast because, unlike Michigan, there would be no casinos in the state.

Our assumptions are based on Spectrum's long experience analyzing gaming markets throughout the country, state demography, and the competitive landscape in the region; these assumptions are discussed in detail in their relevant sections of Chapter III.

IV. Assessment of Regulatory Structures

In determining how to proceed with the regulation of sports gaming and other possible forms of new gaming operations, there are multiple options available for the State of North Carolina. They include:

- Establishing a State gaming commission that would provide administration, oversight and enforcement of all gaming regulations in the state. This would include oversight of existing gambling operations – including the State lottery and charitable gaming – as well as any potential new forms of gaming operations, whether in the form of sports betting or some other gaming activity.
- Relying upon an already existing gaming regulatory agency, the North Carolina State Lottery Commission, to provide the necessary regulatory and oversight functions for expanded gaming operations.

For both of the options above, the State would be relying upon a single-agency model for complete regulatory oversight over various gaming operations. This single-agency model, whether in the form of a new gaming commission or under the purview of the existing State lottery commission, is seemingly suitable for effective regulation within the context of the limited legal gaming operations that are available or will be made available in the foreseeable future for the state's patrons.

- Creating a separate and independent division of gaming enforcement to conduct the required background investigations and oversee law enforcement aspects of expanded gaming operations including sports betting, to work in tandem with the NCEL. This format would be especially appealing should the State authorize commercial casinos, which would require more intensive scrutiny over gaming operators. Conversely, without commercial casinos, the advent of sports betting or video lottery terminals by themselves may not require this additional branch of government. The single-agency model may be viewed as the more pragmatic solution. We note that Delaware employs this hybrid regulatory system, but that state has commercial gaming at three racetrack casinos and therefore requires enhanced regulatory oversight. In this regard, we note that the NCEL currently works with Alcohol Law Enforcement and the State Bureau of Investigation with respect to investigative and enforcement functions and therefore accomplishes the same objectives.
- Creating a new State gaming agency that would be entrusted solely with the regulation of sports betting, at least initially, but could then be expected to transition to the regulation of commercial casinos as well if that ever becomes a reality. This latter approach would create a dual-agency model for gaming regulation. In our judgment, this scenario appears to be cost-prohibitive, given the fact that the NCEL is more readily available to assume these duties and responsibilities.

We note that consideration of these latter two models is primarily a function of whether gaming operations are likely to be expanded to include commercial casino gaming operations in the foreseeable future. If that is an unrealistic scenario, the intrinsic value of these models dissipates instrumentally as the need for enhanced regulation diminishes. In this regard, no state has established a separate regulatory agency for the sole purpose of regulating sports betting or video lottery terminals; all have relied instead upon the existing regulatory system.

Based on the foregoing, there are myriad variations in how each state approaches the regulation of diverse gaming operations. Spectrum believes the State of North Carolina should take advantage of the time-honored gaming regulatory experience of the NCEL and entrust this agency with responsibility for expanded forms of gaming. In our judgment, this is the most efficient and effective means of implementing sports betting regulation as well as the regulation of other new gaming activities in the future.

Conversely, the creation of a separate regulatory agency would create significant startup costs and ongoing expenses that would, to some degree, be duplicative. Moreover, two agencies

with separate responsibilities over different segments of gaming are more likely to engender policy differences that would otherwise be avoidable in a one-agency system.

Spectrum also recommends revising the structure of the commission, to reduce the number of its members from nine to five, mandate a bipartisan body, and add specific experiential requirements. We believe these modifications will enhance public confidence in the integrity of the regulatory process as new gaming operations are implemented. If a reduction of this magnitude is viewed unfavorably, we recommend a seven-member composition as a possible option to be considered.

When evaluating the appropriate regulatory structure for expanded gaming operations, it is necessary to distinguish between the Lottery Commission with the Commissioners presiding over the agency and the NCEL staff that is responsible for conducting day to day lottery operations. The proven expertise and vast experience of the latter group should not be discounted in the final determination of this issue.

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Introduction

Pursuant to Senate Bill 574, the North Carolina Education Lottery ("NCEL," "the Lottery" or "Client") engaged Spectrum Gaming Group ("Spectrum," "we" or "our") to "provide an independent analysis of current North Carolina gaming activities (including those prohibited by law), potential new gaming activities and whether a Gaming Commission should be created in North Carolina." As stipulated in the Request for Quotation issued by NCEL, the selected consultant is to provide the following deliverables:

1. Details regarding the types of gaming activities that are currently prohibited by NC laws and their associated economic impact to the State of North Carolina ("State"). In particular, gaming activities subject to Article 37 of the North Carolina General Statutes.
2. Details regarding the types of gaming activities that are authorized by the State[3] including their associated economic impact to the State. In particular, these gaming activities may include, but are not limited to, games authorized by §18C of the General Statutes, Tribal Games authorized by Federal and Tribal-State Compacts, and various charitable games regulated under Article 37 of the NCGS as noted above.
3. Potential new gaming activities that could be authorized by the State's General Assembly with their associated potential new revenues to the State, including, but not limited to, "games traditional to a lottery or that have been conducted by any other state government-operated lottery" (NCGS §18C-130(a)).
4. Analysis of whether a gaming commission should be created, including the proposed separate gaming division or commission as structured in Senate Bill 574, Third Edition, 2019 Regular Session, to provide administration, oversight, and enforcement of gaming regulations in the State. This review shall include an evaluation of the potential costs, economic and practical efficiencies, including an evaluation of any current regulatory authority with pre-established infrastructure and authority to regulate certain gaming activities in this State.

With respect to task No. 3 above, Spectrum made a determination to study the following potentially new forms of gaming in North Carolina:

- Casino gaming (commercial; i.e., non-tribal)
- Distributed gaming (e.g., video gaming terminals at bars, taverns and fraternal organizations or other authorized locations)
- Internet casino gaming (casino-style gaming online; commonly called "igaming")

[3] The word "State" when capitalized throughout this report refers to the government.

- Sports betting (as operated by a state lottery) [4]
- Pari-mutuel horse racing
- Ilottery (e.g., "digital instant" and draw games played online, as offered through a state lottery)

A. Glossary

Throughout this report we make reference to certain terms that are relevant to gaming, including:

- **Distributed Gaming** – Video gaming terminals placed in authorized, non-casino locations such as bars, taverns and fraternal organizations. Typically restricted to 5 to 10 machines per location. Also called "retail gaming," "route gaming" or "video gaming."
- **Electronic Gaming Device ("EGD")** – An umbrella term for any slot-like gambling machine, including a casino slot machine, video gaming terminal, video lottery terminal, video poker machine, and historical horse racing machine. Regardless of their internal configuration, all are designed to provide a gambling experience similar to that of a traditional casino slot machine or video poker machine.
- **Gross Gaming Revenue ("GGR")** or **Win** – The amount of money players wager minus the amount players win (Handle X Hold% = GGR), before any expenses or taxes have been deducted.
- **Handle** – The total amount of money wagered.
- **Hold** or **Gross Win Percentage** – The percentage of money the bookmaker or house holds onto after all bets have been settled. It is the inverse of the payout percentage.
- **Ilottery** – Lottery games that are played or purchased online in formats that include draw games, digital-instant games, and other games of chance.
- **Internet Casino Gaming** – Casino-style games played via mobile device, personal computer or other personal online device. Commonly called "igaming."
- **Mobile Gaming** – A prominent channel for internet casino gaming, with games typically played via an operator's app.
- **Pari-Mutuel** – A form of wagering – typically used in horse racing – in which all bets on a particular event are pooled, and payoff odds are calculated by sharing the pool among all winning bets. The operator/provider deducts a "takeout" from all wagers.
- **Retail** – Betting in person at a physical location, such as at a lottery retailer, casino or other authorized location.

[4] Spectrum in 2019 completed a sports betting market analysis for NCEL; the discussion and analysis of sports betting in this report is excerpted from the 2019 report for NCEL.

B. Methodology

Spectrum relied on the following primary methods for our research and analysis:

1. **Data collection:** Spectrum collected data from numerous sources including state gaming and racing commissions, other state regulatory commissions, and private-sector sources. As gaming is a highly regulated industry and states seek to ensure their citizens that gaming activities are conducted fairly and openly, they typically make available volumes of data.
2. **Interviews:** Spectrum conducted interviews for all aspects of this project, whether in person or by telephone or email. (See Appendix 1 for the interview list.)
3. **Financial modeling:** Spectrum used a number of analytical tools and models to analyze gaming data, population data, and geography. We further used some of these data as inputs for an input-output economic forecasting model from Regional Economic Models Inc. (see Appendix 2), which projects the economic impacts of currently authorized gaming in North Carolina.
4. **Experience of relevant jurisdictions:** Spectrum researched and assessed the structure, regulations and performance of gaming in other relevant states. This provided critical context for our recommendations in this report and in our forecasts for North Carolina.
5. **Our experience:** Spectrum has been providing independent research and professional services related to the gaming industry since 1993, and many of our executives and associates have been gaming regulators, operators or analysts for decades. We have conducted studies or consultations in 40 US states and territories, including for numerous state, tribal and national governments. Our engagements for statewide gaming studies include those for the governments of Connecticut, Florida, Iowa, Louisiana, Massachusetts, Ohio and Washington.

Throughout the course of this project we received a high level of cooperation from NCEL, which recognizes that this study will be an important educational tool in helping the State of North Carolina and myriad stakeholders understand the considerations and impacts of expanded gaming.

C. About Spectrum Gaming Group

Spectrum Gaming Group is an independent research and professional services firm founded in 1993 that serves private- and public-sector clients worldwide. We are a non-partisan consultancy that specializes in the economics, regulation and policy of legalized gambling worldwide.

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 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 250-plus clients have included government entities of all types and 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:

- Brazil Chamber of Deputies
- 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
- North Dakota Taxation Committee
- 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 North Carolina Education Lottery. Spectrum shall not be responsible for any inaccuracies in reporting by NCEL or its agents and representatives, or by any other data source used in preparing or presenting this study.

Some significant factors that are unquantifiable and unpredictable – including, but not limited to, economic, governmental, managerial and regulatory changes; and acts of nature – are qualitative by nature and cannot be readily used in any quantitative projections. No warranty or representation is made by Spectrum that any of the projected values or results contained in this study will actually be achieved. We shall not be responsible for any deviations in the project's actual performance from any predictions, estimates, or conclusions contained in this study.

This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.

I. Prohibited Gaming in North Carolina

The State of North Carolina authorizes only three forms of gambling:

1. Traditional lottery, which is operated and regulated by the North Carolina Education Lottery.
2. Tribal gaming, which is offered and regulated by the Eastern Band of Cherokee Indians ("EBCI") at its Harrah's Cherokee Casino Resort and Harrah's Cherokee Valley River Casino & Hotel in the western part of the state. Games include slot machines, table games, and poker; sports betting could commence later this year. Both casinos are operated by Caesars Entertainment under agreement with the EBCI.
3. Charitable gaming, which is offered by organizations and regulated by the Alcohol Law Enforcement ("ALE"), a division of the Department of Public Safety. Games include bingo,[5] raffles and "game nights."

Despite the prohibition on all other forms of gambling in North Carolina – and as is assuredly the case in every state – unregulated gambling[6] is widespread. Such activities may include electronic gaming/amusement machines, slot machines, table games, sports betting, and sweepstakes games.

A. Applicable Laws

Legal Gambling

North Carolina's gambling laws are codified in North Carolina General Statutes Article 37: Lotteries, Gaming, Bingo and Raffles. Article 37, Chapter 14, of North Carolina's criminal code defines what is legal and illegal with respect to gambling. Chapter 14, Section 14-292, of Article 37 provides that " … any person or organization that operates any game of chance or any person who plays at or bets on any game of chance at which any money, property or other thing of value is bet, whether the same be in stake or not, shall be guilty of a Class 2 misdemeanor."

North Carolina restricts legal forms of gambling to the following activities: the lottery operations under the auspices of the North Carolina Education Lottery; two Native American casinos; charitable bingo, raffles and game nights; and low-stakes "beach bingo." Sports wagering is permissible at the Native American casinos, pursuant to a law enacted in 2019. All other forms of gambling activity, apart from what is authorized at the two Native American casinos, including

[5] Low-stakes, non-charitable "beach bingo," an activity Spectrum would characterize as social gaming, is also authorized in North Carolina.

[6] "Unregulated gaming/gambling" is an umbrella term for gambling or gambling-like activities that are either unauthorized by the host jurisdiction or are expressly illegal. Often termed "gray-market" games.

commercial casinos, video lottery machines, and sports wagering, including betting on horse racing and greyhound dog racing and other sporting events, are illegal.

Outside of the gaming activity permitted at the Native American casinos, legal gaming activity is thus restricted on a statewide basis to the following:

- State lottery: Pursuant to the North Carolina State Lottery Act, the state permits a state lottery to raise money for education.[7]
- Bingo games: Exempt nonprofit and charitable organizations, as defined by the Internal Revenue Service and state law, may operate bingo games. The organizations must be licensed to operate the bingo game and the maximum prize that may be offered is $500 per game ($1,500 total per session or $2,500 if there is only one session per week). Licensed bingo operators may hold up to two sessions per week.[8]
    - Beach bingo: No beach bingo game may offer a prize having a value greater than $10.[9]
- Raffles: Nonprofit and charitable organizations may also sponsor raffles. The organizations may not offer the raffles in conjunction with bingo games. Raffles are limited to four per nonprofit per year. Maximum prizes are $125,000 in cash or merchandise.[10]
- Game nights: No games played at game night events may be played for cash or cash prizes. Prizes are given only through a raffle. The following games are permitted: roulette; blackjack; poker; craps; simulated horse racing; and merchandise wheel of fortune.[11]

Since 1983, North Carolina has permitted registered, eligible charitable organizations to offer bingo and raffles. Bingo is licensed by the Alcohol Law Enforcement Division ("ALE") within the Department of Public Safety of North Carolina. ALE is responsible for licensing charitable gaming operations, ensuring they are in compliance with the state's bingo laws, and enforcing those laws to prevent commercialized gambling. A bingo game is defined as a specific game of chance.

A charitable bingo license can be granted to nonprofit charitable, civic, religious, fraternal, patriotic, veterans or property owners' associations. They can also be given to volunteer fire departments and rescue squads. Nonprofits are required to apply to the ALE Bingo Section for a

[7] General Statutes, Chapter 18C.

[8] General Statutes, Article 37 Chapter 14-309.7.

[9] General Statutes, Article 37 Chapter 14-309.14.

[10] General Statutes, Article 37 Chapter 14-309.15.

[11] General Statutes, Article 37 Chapter 14-309.29 and 309.30.

license to operate a charitable bingo game and pay an annual $200 nonrefundable fee. Licensed nonprofits can operate games no more than twice a week, 48 hours apart, for no longer than five hours per session.[12]

Accepted charities are limited to offering bingo, beach bingo, game nights, and raffles, and they must adhere to certain restrictions, as defined in Chapter 14-309.9 and 14-309.15(d).[13] These include:

- Bingo prizes not exceeding $500 for a single game
- Not exceeding $1,500 in total bingo prizes for a single session
- Raffle prizes not exceeding $125,000 for a single raffle
- Not exceeding $250,000 in raffle cash prizes for an entire calendar year
- Not exceeding $250,000 in raffle non-cash prizes for a calendar year
- Other stipulations include that participants must be members of the organization; 100 percent of the proceeds must go to the charity's cause; and charities are limited to eight or fewer fundraisers every month.[14]

The North Carolina Education Lottery ("NCEL") began operations in 2006. The revenue is allocated to K-12 and higher education funds. NCEL offers scratchoff games and draw games, including the multi-jurisdictional Mega Millions and Powerball games. Lottery games are available to the public at various licensed retail establishments throughout the state. The age requirement is 18.

The Eastern Band of Cherokee Indians ("EBCI") is the only tribe in the state of North Carolina authorized to offer Class III casino gaming.[15] Per its Compact with the State, the Tribe may operate an unlimited number of Class III gaming facilities on Eastern Cherokee lands. The Cherokee Tribal Gaming Commission, established in 1993, is responsible for the regulation of all gaming activities on Eastern Cherokee Lands. The State of North Carolina is given limited regulatory scope over tribal gaming to ensure compliance with Compact provisions. The Compact grants the tribe the authority to enter into a management contract for the operation and management of a casino. The tribe has entered into a contract with Caesars Entertainment Corp. for the operation and management of the Harrah's Cherokee Casinos. An interim casino began operation in January 1995 and the permanent casino opened in November 1997. The compact is

[12] General Statutes, Article 37, Chapter 14-309.7.

[13] General Statutes, Article 37, Chapter 14-309.9 and 309.15(d).

[14] General Statutes, Article 37, Chapter 14-309.11.

[15] General Statutes, Article 37, Section 14-292.2.

set to expire in 2042. A second casino, Harrah's Cherokee River Valley, opened in 2015.[16] The minimum gambling age is 21.

All revenue received by the State under the revenue-sharing agreement must be allocated to local school administrative units and charter schools within the state. As required under the Indian Gaming Regulatory Act, tribes must use tribal gaming funds:

1. To fund tribal government operations or programs;

2. To provide for the general welfare of the tribe and its members;

3. To promote tribal economic development;

4. To donate to charitable organizations; or

5. To help fund operations of local government agencies.

As required by the Compact, the EBCI must allocate a specific percentage of gaming revenue to the Cherokee Preservation Foundation, whose purpose is to "protect, preserve and enhance the natural resources, environmental and aesthetic appearance of Cherokee tribal lands." The tribe's contribution to the foundation may not exceed $7.5 million in any given year.[17]

In 2019, the state authorized sports betting operations, but restricted the gaming activity to the Native American casinos.[18] Online sports wagering is not allowed. Unlike some other states, North Carolina allows bettors to wager on in-state college teams.

Illegal Gambling

North Carolina law states that it is illegal "for any person or organization to operate a game of chance or to play or bet on any game of chance that involves winning money, property or anything of value."[19] Gambling is punishable as a Class 2 misdemeanor.[20] Alcohol Law Enforcement Gaming Unit Special Agents are directly responsible for enforcing criminal laws pertaining to alcohol, controlled substances, tobacco, lottery, bingo and gambling.[21]

Specific gambling violations in the statute, Article 37, Chapter 14, include:

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[16] American Gaming Association, North Carolina Regulatory Fact Sheet. https://www.americangaming.org/wp-content/uploads/2019/07/AGAGamingRegulatoryFactSheet_NorthCarolina-1.pdf

[17] Ibid.

[18] Eric Ramsey, "Tar Heel Born: North Carolina Sports Betting Becomes Law," *Legal Sports Report*, July 26, 2019. https://www.legalsportsreport.com/34676/nc-sports-betting-law/

[19] General Statutes, Article 37, Chapter 14-292.

[20] Ibid.

[21] North Carolina Department of Law and Public Safety, "Criminal Laws." https://www.ncdps.gov/our-organization/law-enforcement/alcohol-law-enforcement/laws-and-rules

1. Advertising and / or dealing lotteries as an unlicensed agent
2. Selling "numbers" tickets, such as raffles and certificates
3. Establishing or participating in a pyramid scheme
4. Allowing illegal gambling on one's property or business
5. Dealing illegal slot machines and / or gambling tables
6. Manufacturing illegal slots and / or gambling devices

It is illegal to operate "any slot machine or device where the user may become entitled to receive any money, credit, allowance, or anything of value. A slot machine is a device where players insert coins, slugs, or tokens and the game of chance may result in winning money or something of value." The statute further provides that it is also illegal to manufacture, own, store, keep, possess, sell, rent, lease, let on shares, lend or give away, transport or to permit the operation of, any slot machine. It is also illegal to allow slot machines to be stored on one's property for use.[22]

Video slot machines are illegal in the state. Operators have tried to circumvent the restriction by using machines they argue involve skill to determine whether the patron wins or loses at the game. Gaming officials have maintained that such video slot machines are not skill-based games and therefore violate state law. (See Section B below.)

Video slot machines were once widespread in North Carolina. Regulations enacted in 2000 limited them to three machines per location and blocked the installation of any new machines. Subsequently, in 2007, these machines were completely prohibited.[23]

After the ban, an industry of sweepstakes parlors arose, operating in a legal gray area by offering chances to win when customers purchase Internet or phone time. The General Assembly tried to close the parlors in 2010 by outlawing any video sweepstakes with an "entertaining display," but the ban did not take effect until January 2013 due to a legal challenge by the industry.

In North Carolina, sweepstakes parlors or cafes are popular. Patrons play casino-style games at computer terminals for prizes. In 2019, the North Carolina Court of Appeals ruled that video game sweepstakes violate the state's gambling laws. Such games have been available to the public over the years in convenience stores, bars and in standalone locations known as sweepstakes cafes. The North Carolina legislature has passed laws to try to prohibit these

[22] General Statutes, Article 37, Chapter 14-301.

[23] North Carolina Department of Law and Public Safety, "Criminal Laws." https://www.ncdps.gov/our-organization/law-enforcement/alcohol-law-enforcement/laws-and-rules

sweepstakes as an illegal form of gambling. The operators contended that the games were skill-based and therefore were not illegal. Enforcement has proven difficult due to a large extent to the limited staff of the ALE Gaming Unit, which has only six agents dedicated to the prevention of illegal gaming activity in the state.[24]

State law prohibits electronic machines that conduct or promote sweepstakes through the use of an entertaining display. These machines were found by the court to have such an entertaining display. The court also found that random chance outweighed the skill element of the games and therefore they constituted illegal gambling machines. The court found that the minimum amount of skill needed in executing the game failed to transform a game of chance into a game where skill and dexterity predominate.[25] The court ruling found that sweepstakes cafes were illegal. Despite the ruling, the state continues to have a proliferation of these machines in operation. This is an unregulated cottage industry.

Another prevalent form of illegal gambling being conducted in the state involves "fish game" tables. This activity became especially widespread around 2017. Arcade operators have argued that these games are not illegal because they involve skill in their operation. Gaming regulatory officials disagree.[26]

A variation is a "nudge" game, whereby players press a button to raise or lower the symbol after a spin on the machine. Advocates of these games assert that they are games of skill because the pressing of the button changes the outcome, while gaming officials contend that they are not skill-based games but rather games of chance, which are illegal under state law.[27]

Sports wagering is not permitted beyond the borders of the Native American casinos. Online sports wagering is not permissible anywhere in the state.[28] Clearly, sports wagering activity continues to be a substantial source of illegal gaming in the state, to the point where legalization has been considered recently.

Pari-mutuel horse racing is prohibited in North Carolina, while greyhound racing had a brief window of legality from 1948 to 1954 and has been illegal since. The state has two racetracks in Moyock and Morehead City where greyhounds raced. The North Carolina Supreme

[24] Interview of Christopher Scott Poole, Alcohol Law Enforcement Gaming Section, February 12, 2020.

[25] Paul Woolverton, "Video sweepstakes kiosks ruled to be in violation of North Carolina gambling laws," *The Fayetteville Observer*, October 16, 2019. https://www.newsobserver.com/news/politics-government/article236318648.html

[26] Anna Douglas, "People are winning — and losing — big at this hot NC arcade trend. But is it legal?" *Charlotte Observer*, August 15, 2018. https://www.charlotteobserver.com/latest-news/article213508384.html

[27] Ibid.

[28] Article 37, Section 14-292.2 of the General Statutes, Class III Gaming on Indian lands.

Court closed them when allegations surfaced that special privileges were being given to a private company.[29]

Daily fantasy sports are not legal in the state, and the business is not regulated. Legislation was considered in 2019 to legalize the daily fantasy sports business, but it was rejected. Nevertheless, the daily fantasy sports industry continues to flourish in the state as it does across most of the country.[30]

B. Extent, Performance and Impacts of Unregulated Gaming

In this section, Spectrum examines the extent of the unregulated gaming in North Carolina, the ranges of revenues they could be generating, taxes the State could be receiving if these games were legal, and how these games may be impacting the legal gaming in the state.

There are two primary caveats with this exercise:

1. It is impossible to know the precise extent or performance of unregulated gaming in North Carolina. Through interviews, examples in other states, published estimates, and our own experience analyzing gaming for more than 40 years, we have developed what we believe are reasonable ranges for the purpose of showing the possible size of these activities in North Carolina, which may help the State form public policy toward expanded legal gaming.
2. We provide our estimates of revenue and tax receipts of unregulated gaming activities "as is." In other words, we estimate them in their current, unregulated state. If they were to become legal and regulated – which is the focus of Chapter III of this report – the revenues and corresponding tax receipts could be significantly higher, because they would be well marketed and advertised.

In this section, we examine the potential revenues for three forms of unregulated gambling that we believe are most relevant for this study: gaming machines, sports betting, and betting on horse races.

Simply put, unregulated gaming undermines regulated gaming and prevents regulated gaming from fully achieving stated policy goals. In North Carolina, this means that the tens of thousands of unregulated electronic gaming devices operating throughout the state compete to a certain extent against, and on an unlevel playing field with, the regulated North Carolina Education Lottery and with the regulated Harrah's Cherokee casinos for customers' discretionary gambling dollars.

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[29] "Gambling in North Carolina, Is it Legal to Gamble in the State?" GamblingSites.com. https://www.gamblingsites.com/online-gambling-jurisdictions/us/north-carolina/

[30] Erik Gibbs, "North Carolina Says No to Daily Fantasy Sports," CalvinAyre.com, June 6, 2019. https://calvinayre.com/2019/06/06/business/north-carolina-says-no-to-fanstasy-sports/

As unregulated enterprises, the operators of unregulated gaming devices do not pay a State or local gaming tax and are not subject to the customary gaming rules and regulations established by the State of North Carolina and the Eastern Band of Cherokee Indians.

Most significant, illegal operators, by definition, are not subject to abiding by a core principle of legalized gaming throughout the United States: That a license to operate gaming is a privilege limited to those who demonstrate their good character, honesty and integrity.

Further, illegal sports betting will compete with the legal sports betting expected to commence this year at the Harrah's Cherokee casinos, and will have similarly unfair advantages, which it can leverage, including offering more attractive odds due to a lower, tax-free cost structure.

Gaming Machines

Unregulated gaming is pervasive throughout the country – even in Utah, one of only two states without any form of legal gambling.[31] There are myriad types of devices and schemes used to either circumvent established state law or outright violate the law. They include skill-based games, sweepstakes games, fish games, 8-liners, and all manner of video- and reel-based gaming devices generally designed to replicate the experience of playing a bona fide casino slot machine. Some of these games may be legal – or at least not illegal – if they involve an element of skill or if they pay non-cash prizes. However, such games have gained widespread appeal because they go beyond their regulated boundaries to provide a real-money, slot-machine-like gambling experience.

Such games are generally called "gray-market games." William Bogot, a Chicago-based gaming attorney who previously served seven years as a legal adviser to the Illinois Gaming Board, in 2014 wrote: "Gray area video games are gambling devices designed to hide their gambling characteristics so that they do not appear as illegal gambling devices under the Illinois Criminal Code. Gray area games are 'slot machines in sheep's clothing.'"[32]

Unregulated gaming has recently become so problematic that two of the biggest advocates for the regulated gaming industry – the Association of Gaming Equipment Manufacturers and the American Gaming Association – in February 2020 launched a joint effort

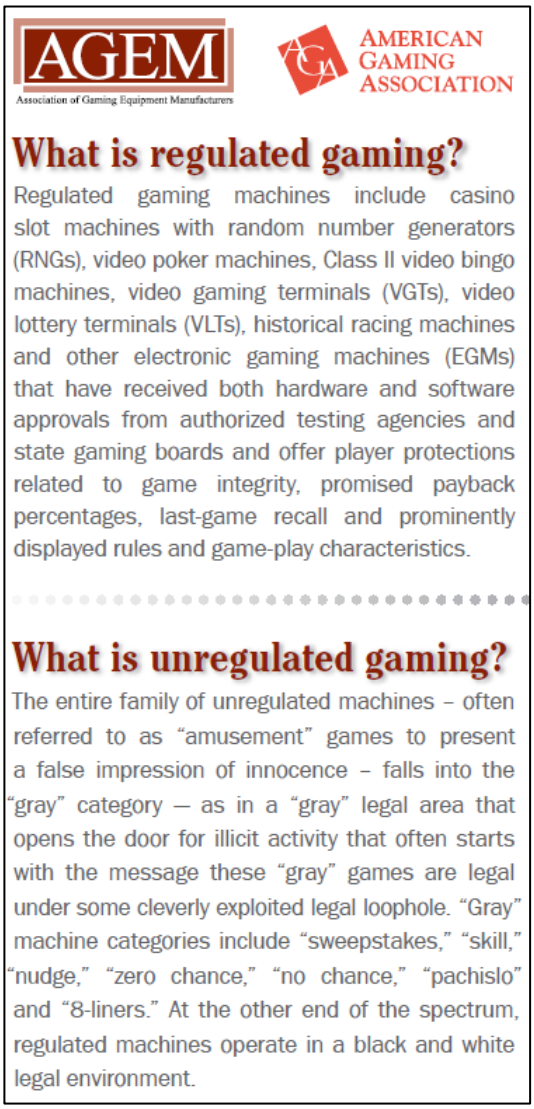
[31] Erin Cox, "Utah man makes $8 million a year in cash from illegal gambling machines," Fox13, February 12, 2020. https://www.fox13now.com/news/local-news/utah-man-makes-8-million-a-year-in-cash-from-illegal-gambling-machines

[32] William Bogot, "New Shades of 'Gray Area' Gaming in Illinois: Internet Cafes and Coupon Machines Coming to Towns that Opted Out of the Video Gaming Act," *Gaming Law Review*, Vol. 18, No. 2, 2014.

to combat the activity.[33] They are now circulating their definitions of regulated and unregulated gaming in a "fact sheet," as shown in Figure 1 below.

State and local authorities periodically raid unregulated-gaming establishments, generating headlines, but they readily admit they do not have nearly the resources necessary to effectively suppress this activity. If a certain establishment is raided and closed, or if a certain gaming machine is deemed illegal, operators and manufacturers will pop up in another location and maybe with a slightly different type of gambling machine that they believe is not illegal – or at least will go undetected for a worthwhile period. Authorities often use the phrase "Whac-A-Mole"[34] in describing their ongoing and seemingly futile efforts to shut down such operations. As a result, many of these machines and host establishments operate in plain sight. In essence, they have become a form of distributed gaming (see Chapter III.B of this report for discussion of distributed gaming).

Figure 1: AGEM, AGA definitions of regulated and unregulated gaming



The situation has become acute in some states. As regulated gaming continues to proliferate – from more casinos to new lottery offerings to sports betting and internet casino gaming – the competition for gamblers has intensified. Unregulated gaming has cut into that limited pie of available gambling dollars – and state governments and regulated gaming operators are feeling the economic pinch. The state lotteries of Missouri, Pennsylvania and Virginia, for example, last year announced estimated lost annual sales of $50 million, $200 million and $138 million, respectively, to unregulated games that they believe compete with their lottery products (see discussion below).

The situation is no different in North Carolina. Spectrum interviewed Christopher Scott Poole, Special Agent in Charge of the Gaming Section of

[33] "AGA, AGEM Launch Partnership to Combat Unregulated Gaming Machines," American Gaming Association and Association of Gaming Equipment Manufacturers press release, February 18, 2020. https://www.americangaming.org/new/aga-agem-launch-partnership-to-combat-unregulated-gaming-machines/; fact sheet: https://agemonline.org/factsheet.pdf

[34] Referring to the popular arcade game in which players try to hit pop-up moles with a mallet.

Alcohol Law Enforcement ("ALE"), a division of the Department of Public Safety. Poole said there are tens of thousands of unregulated gambling devices operating in plain sight throughout North Carolina. He could name only a few counties that did not have such games. Some establishments have upward of 200 games, he said. "These places are operating like casinos, with darkened windows, ATMs, free beverages, food, no clocks, security on site," Poole told us. The customer acceptance and the established nature of some of these businesses lead many patrons to believe they are authorized gaming establishments.

Indeed, Spectrum found that some establishments operate like mini-casinos, with a variety of games, simple food service, varying security measures, and friendly service. Some have ATMs. We note that some restrict admission to patrons who are age 18 and above while others restrict admission to age 21 and above.

Types of unregulated games commonly found in North Carolina are:

- **Sweepstakes games** generally require the patron to purchase a product – often internet time – and as a side benefit of the product the patron receives several "free sweepstakes entries." Once the patron has played the free entries the patron can buy additional entries. These games are often played on computer terminals. Operators of these games equate it to buying fries at McDonald's and receiving a "Monopoly" sweepstakes card.
- **Skill games** take on several forms. In some, the player must repeat a pattern by tapping colored squares on a screen in the same pattern the machine displayed. Other games are "nudging games," in which the player uses skill to align symbols on a screen to form a pattern by nudging the symbol to align.
- **Fish games**, which are played on a table-top console. Players attempt to use skill to tap fish of differing values before they swim across the display.

Machine suppliers continue to innovate and modify games in efforts to create video gaming devices that do not run afoul of state law or regulations. Regardless of the type or name of the machine or game, if it is not regulated by the host state then it remains an unlicensed game and therefore is not subject to state-approved testing for game fairness, nor are the game suppliers or gaming operators subject to background checks.

From a financial perspective, unregulated gaming deprives the host state of a share of the receipts in the form of a gaming tax, such as those paid by regulated casinos, distributed games operators, and sports betting operators. In situations such as North Carolina where the games are blatantly illegal, the business tends to be all cash, which means it is fertile ground for money laundering.

Combatting Unregulated Gaming

The expansion of gaming in North Carolina will, in Spectrum's opinion, require the State to either remove or regulate the widespread unregulated gaming now in place. To let this industry continue as-is would:

a) Continue to compete for customers' discretionary gambling funds with the regulated NCEL and Cherokee casino offerings;

b) Cut significantly into the potential revenues of casino gaming, distributed gaming and other expanded gaming, if those activities were authorized;

c) Reduce the potential State tax receipts from casino gaming, distributed gaming and other expanded gaming, if those activities were authorized;

d) Cause prospective licensed gaming operators to either cross North Carolina off their list of expansion opportunities or reduce their prospective capital investment in facilities due to the lower GGR potential, if commercial casino gaming were authorized; and

e) Give unregulated-gaming operators a sustainable competitive advantage over regulated-gaming operators in the form of the absence of gaming taxes and regulatory burden.

As noted previously, Spectrum's estimates for casino GGR and distributed gaming GGR in Chapter III of this report assume that there will be no significant unregulated gaming in the North Carolina.

If the State of North Carolina were to opt for regulating the currently unregulated industry – i.e., replacing an illegal industry with a legal industry, as Illinois did – it would essentially be allowing a distributed gaming model, as discussed in Chapter III.B of this report.

If the State chooses to remove the unregulated gaming, it would do well to follow the example of Illinois. That state's Video Gaming Act of 2012 made possession of gray-market games a felony. "We saw first-hand that there were two needed elements to get rid of the games: first, have possession of the devices be a felony, not a misdemeanor, and second, charge the state police with enforcement. The day that law went into effect we literally saw thousands of machines destroyed and on trucks leaving the state," gaming attorney Bogot told Spectrum of the experience in Illinois.

North Carolina has gaming laws against promoting, operating or conducting a server-based electronic game promotion, and forbidding any person to possess any game terminal with a display that simulates a game ordinarily played on a slot machine (G.S. 14-306.3). The same law states that players cannot be paid out in cash for any credits won, and that no more than eight credits can be played at one time. Enforcing these rules is a challenge.

As it is, North Carolina ALE has a staff of six to police the unregulated games in North Carolina. Much enforcement is by necessity left to county sheriffs. Some counties have had success in curtailing gaming through tough enforcement and strict control. Others have not been

as successful. Some view these games as less threatening than other public safety issues. Funding for gaming enforcement is a lower priority than other criminal activities.

Against this backdrop, the games are undeniably popular among North Carolinians, and the host establishments are providing employment and paying rents.

Impacts on State Lotteries

State lotteries across the country this year and last year have claimed that unregulated games are hurting sales, with several seeking legislative relief. Below, we summarize the recent experiences of several lotteries in measuring or addressing the impacts of unregulated gaming.

Georgia: In 2015 the State placed the previously unregulated coin-operated amusement ("COAM") games under the supervision of the Georgia Lottery. The 23,000 COAM games in Georgia averaged daily win per unit of $95, yielding approximately $797.5 million in 2019, according to the Georgia Amusement and Music Operators Association.[35] The Georgia Lottery retains 10 percent as a fee for licensing and regulating the COAM games.

Missouri: The state had an estimated 14,000 unregulated games in 2019, basing this on "data collected over a six-month period starting in August 2018 on a lottery sales route." The Missouri Lottery estimated that the machines were costing the lottery $50 million in annual sales.[36] That equals 3.4 percent of total sales. If we apply the same 3.4 percent impact to North Carolina Education Lottery sales of $2.86 billion, this would equate to $97.5 million in lost sales. A pending bill in Missouri, HB 530, would authorize the investigation and criminal prosecution of illegal gambling; violators in relevant establishments could lose their liquor licenses and would be forever barred from participating in any regulated gaming.[37]

Pennsylvania: In February 2019, the Pennsylvania Lottery estimated that losses from the unregulated games amounted to $95 million a year.[38] By January 2020, the Lottery upped the estimate to $200 million a year in lost sales while estimating there were 20,000 unregulated machines across the state.[39] The Pennsylvania Lottery sold more than $4.5 billion in tickets in the

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[35] Paul Tash, "Applications processed, revenue up," *Georgia Amusement Journal*, December, 2019. https://assets.noviams.com/novi-file-uploads/gamoa/December_2019.pdf

[36] Kurt Erickson, "Missouri Lottery says gas station gaming machines taking toll on ticket sales," *St. Louis Post-Dispatch*, September 6, 2019. https://www.stltoday.com/news/local/govt-and-politics/missouri-lottery-says-gas-station-gaming-machines-taking-toll-on/article_ab3a2494-b9dd-5120-8997-074a4ddff6d5.html

[37] Missouri Senate Bill 530. https://www.senate.mo.gov/20info/BTS_Web/Bill.aspx?SessionType=R&BillID=26838068

[38] Elizabeth Hardison, "Unregulated gambling games cost Pa. Lottery $95 million in revenue, director says," *Pennsylvania Capital-Star,* February 19, 2019. https://www.penncapital-star.com/working-the-economy/unregulated-gambling-games-cost-pa-lottery-95-million-in-revenue-director-says/

[39] Marc Levy, "Fight over cash-paying video games hits crucial stretch," *Pittsburgh Post-Gazette*, January 11, 2020. https://www.post-gazette.com/news/state/2020/01/11/Fight-over-cash-paying-video-games-hits-crucial-stretch/stories/202001110044

fiscal year ended June 30, 2019. The estimated $200 million in lost sales amounts to approximately 4.4 percent of sales. Applying the same 4.4 percent impact to NCEL sales equates to $127 million in lost sales.

Virginia: In 2019, lottery sales totaled $2.29 billion. In August 2019, the Virginia Lottery discussed the rapid spread of unregulated gaming machines in the state. The lottery estimated that from January through August 2019, the number of games at lottery retailers in the commonwealth grew from approximately 500 to 4,500. The lottery estimated that the rapid growth of unregulated machines resulted in $138 million in lost sales in the prior 12 months.[40] That $138 million is approximately 6 percent of sales. Applying the same 6 percent impact to NCEL sales equates to $172 million in lost sales.

Washington, DC: Recognizing the gray area of skill games and their potential impacts on the DC Lottery, the Office of the Chief Financial Officer, Office of Lottery and Gaming, in February 2020 awarded a contract for independent study of the impacts of licensing and regulating skill games. The District said it "has not yet seen these machines appear in mass quantities within its borders (like in Virginia, Pennsylvania and Missouri)," but wanted to be proactive due to the interest of machine operators in entering the city.[41]

Estimating Unregulated Gaming Revenue in North Carolina

In 2009, North Carolina House Bill 1537 was introduced to reintroduce video gaming at locations across North Carolina.[42] At the time the sponsor of the bill and the coin-operated amusement industry estimated that tax revenue would amount to $480 million annually at a 20 percent tax rate.[43] Under this assumption, distributed video poker and other games were estimated to generate $2.4 billion in gross gaming revenue. Others believed this was overstated. This estimate also presumably assumes that the $2.4 billion in GGR is an estimate of the revenue from machines after legalization.

Special Agent Christopher Scott Poole of ALE remarked to Spectrum that, at one gaming operation in Bladen County with 200 machines, the operator posted a revenue goal of $71,000 for the week. The operator related to Poole that it was a mark achieved every week. It is

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[40] Kevin Hall, Executive Director Virginia Lottery: Briefing for House Appropriations & Senate Finance Committees, September, 2019

[41] "Request for Quote (RFQ), Electronic Games of Skill Consultant," Government of the District of Columbia, Office of the Chief Financial Officer, Office of Lottery and Gaming, February 2020.

[42] General Assembly of North Carolina Session 2009 House DRH. https://www.ncleg.gov/BillLookup/2009/H1537

[43] "Owners ask that video poker be legalized again," *Winston-Salem Journal*, July 8, 2009. https://www.journalnow.com/news/state_region/owners-ask-that-video-poker-be-legalized-again/article_1f883048-1c2e-5197-8dd9-a50318570380.html

instructive to look at the implications of that one operation: $71,000 x 52 weeks = $3,692,000 for the year.

The industry benchmark for gaming performance is daily win per unit. Using the Bladen County example: $71,000 per week / 200 games / 7 days = $50.71 daily win per unit. We can use this data point as a tool to develop an estimate of the level of unregulated gaming statewide. We emphasize that this estimate is likely conservative given the relatively small population of Bladen County. Poole noted that several counties including Alamance, Guilford, Caswell, and Montgomery have no games, and he believes there are other counties without games. There is no way to know for certain how many counties are, in fact, "game-free." For modeling purposes, Spectrum conservatively assumed that 90 of the state's 100 counties have unregulated machines in operation. Figure 2 below provides the estimated unregulated-machine GGR and potential tax revenue if each county, on average, hosted only 1,000 machines, a likely conservative number given the fact that one operation in Bladen county hosted 200 machines. High-population counties such as Wake and Mecklenburg would have many more machines than Tyrell County, for example, but if there were 90,000 games distributed across the state the potential GGR approaches $1.7 billion.

Figure 2: Potential North Carolina unregulated gaming machine revenue and taxes, Method 1

Counties	Games per County	Total Games	Win per Unit	Est. Annual Unlicensed GGR	Tax Rate	Potential State Gaming Tax Revenue
90	1,000	90,000	$ 50.71	$ 1,665,820,000	30%	$ 499,746,000

Source: Spectrum Gaming Group

Spectrum considered a second method to illustrate the potential GGR being generated by North Carolina's unregulated gaming industry: basing the unregulated gaming market penetration on the licensed gaming penetration in a state where distributed gaming is legal. For 2019 in Illinois, there were an average of 32,162 VGTs operating every day and they generated more than $1.6 billion in net terminal income (the state's term for VGT GGR).[44] Illinois has 289 adults per legal installed VGT, resulting in a daily win per unit of $143.

To apply the Illinois results to the unregulated gaming in North Carolina, we made two assumptions:

1. The ratio of people to units is increased by 50 percent (because of the gray-market status of unregulated machines in North Carolina vs. the legal status of VGTs in Illinois), and
2. The daily win per unit halved (because the unregulated gaming is not heavily marketed or advertised).

[44] Monthly Video Gaming Report, Illinois Gaming Board. https://www.igb.illinois.gov/VideoReports.aspx

Using these assumptions, unregulated games in North Carolina would generate $455 million annually. Applying a VGT tax at the same 30 percent rate as Illinois would yield result in nearly $137 million in potential tax revenue.

Figure 3: Potential North Carolina unregulated gaming machine revenue and taxes, Method 2

	Estimated Adults (21+)	Avg VGTs 2019	Pop. per VGT	Daily win per unit	VGT GGR	Tax Rate	Tax Revenue
Illinois	9,300,000	32,162	289	$ 143	$ 1,676,670,000	30%	$ 503,001,000
Adjustment for NC unregulated gaming			150%	50%			
North Carolina	7,580,000	17,476	434	$ 71	$ 455,530,000	30%	$ 136,659,000

Sources: US Census Bureau, Illinois Gaming Board, Spectrum Gaming Group

Based on the analyses undertaken by other state lotteries discussed above, the impact of unregulated gaming on NCEL sales could be between $98 million and $172 million in annual lost sales.

Sports Betting

Spectrum believes North Carolina is fertile ground for illegal sports betting due to the prominence of high-profile sports teams in the state. North Carolina has three major professional teams – the NFL Carolina Panthers, NBA Charlotte Hornets and NHL Carolina Hurricanes, as well as 18 NCAA Division I colleges and universities (the fourth-highest number of Division I schools among states[45]). Given the particular popularity of Atlantic Coast Conference basketball and football in the region – a conference in which North Carolina has four member schools – we believe illegal sports betting is quite active throughout the state, with bets being placed via in-state bookmakers or with offshore sportsbooks in violation of US law.

As noted in a 2019 report Spectrum prepared for NCEL[46] pursuant to North Carolina Senate Bill 574, the American Gaming Association ("AGA") estimates there is $150 billion in illegal sports handle bet across the country each year.[47] North Carolina has 3.2 percent of the US population, which if proportionate to the amount of estimated illegal handle nationally would equate to $4.7 billion. Applying a 5 percent hold rate to the handle arrives at an illegal GGR estimate of $237 million for North Carolina, which equates to just over $31 per adult. Other

[45] 1KeyData.com, "List of NCAA Division I Schools." https://state.1keydata.com/ncaa-division-1-schools-by-state.php (accessed September 25, 2019)

[46] Spectrum Gaming Group, "Gaming Market Analysis: Analysis and Business Case of Impact of Regulating and Operating Sports Betting Through the North Carolina Education Lottery," December 9, 2019, p. 19.

[47] Figure regularly cited by American Gaming Association based on its research, including in a letter to US Senate Democratic Leader Charles Schumer, September 13, 2018. https://www.americangaming.org/sites/default/files/AGA%20Letter%20to%20The%20Honorable%20Charles%20Schumer%209-11-18%20FINAL.pdf

national estimates of illegal sports betting performance are sourced from various firms issued in 2016 and 2017 and shown in the following table.

Figure 4: Estimates of illegal sports betting in the US

Projection Author	Eilers	EY	AGA	H2GC	Avg.
Illegal Sports Betting Handle ($M)	$55,000	$107,000	$150,000	$196,000	$127,000
Assumed Hold Percentage	5.0%	6.0%	5.5%	5.3%	5.5%
Illegal Sports Betting GGR ($M)	$2,750	$6,420	$8,250	$10,388	$6,985
Illegal Sports Betting GGR per Adult (252M)	$11	$25	$33	$41	$28

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

As shown in Figure 4 above, the estimates of illegal sports betting GGR ranged from $11 per adult to $41 per adult, with an average of $28 per adult. If utilizing this national average and adjusting it for the household income in each North Carolina county, this would equate to $193 million in sports betting GGR in the state.

If we assume a 16 percent State gaming tax on sports betting revenue – a rate between that imposed on sports betting in Mississippi (12 percent) and Tennessee (20 percent) – the State of North Carolina could be realizing between $30.9 million and $37.9 million in receipts from this activity. We again emphasize this is on an as-is basis.

Based on Spectrum's experience studying other gaming jurisdictions, and based on our estimate that legal sports betting would only minimally impact North Carolina lottery sales (see Chapter III.D of this report), we believe that illegal sports betting is having no measurable impact on NCEL sales or on charitable gaming revenues.

Horse Racing

After contacting racing industry sources and reviewing media articles and research papers, Spectrum determined there is no accepted estimate for the volume of illegal/offshore wagering on horse races in the United States (or in North Carolina). We believe the extent of illegal/offshore wagering in the United States is not a major concern for the industry, as there are ample legal options to bet on horses in the United States, including at the track (live racing is operational in more than 30 states[48]), at off-track betting facilities, via advance deposit wagering, and online, thus reducing the market for illegal/offshore horse betting. This contrasts with traditional sports betting, which until two years ago was prohibited in all but one state, thus creating the demand for a large illegal market (as discussed above).

Pari-mutuel horse racing is prohibited in North Carolina and has low visibility due to the lack of activity in the broader region. Pari-mutuel horse racing is also prohibited in South Carolina

[48] Excludes states where live horse racing is operational only during special events such as county fairs, state fairs and special events.

and Georgia, and in Virginia the only live-racing track (Colonial Downs, near Richmond) opened in 1997, closed in 2014 and reopened in 2019 with the aid of slot-like historical horse-racing machines. Therefore, there is little local/regional live activity – and little corresponding media coverage – to whet the appetite of prospective horse players in North Carolina. This stands in contrast, for example, to college basketball, which is prominent in North Carolina and, as discussed above, helps to fuel a significant illegal-betting market in the state.

On the other hand, North Carolinians can view horse racing regularly on television via TVG and Fox Sports 2 (FS2), as well as major races on other networks. Without a legal avenue to bet on the races they are watching on television, the state's horse racing fans may access illegal/offshore books.

To estimate the possible extent of illegal pari-mutuel horse race betting in North Carolina, Spectrum first assumed that the illegal handle nationally was 10 percent of the legal handle. We applied this rate to Spectrum's projected legal handle if this activity were legalized in North Carolina (see Chapter III.E of this report), as shown in the following table:

Figure 5: Estimate of North Carolina illegal horse-racing handle and State tax receipts

Spectrum projected NC legal handle	$	137,200,000
NC illegal handle – 10% of projected legal handle	$	13,720,000
NC State receipts of handle at 1%	$	137,200
NC State receipts of handle at 2%	$	274,400
NC takeout of handle (22%)	$	3,018,400

Source: Spectrum Gaming Group

As shown above, Spectrum estimates that North Carolina could be generating illegal horse racing handle of $13.7 million. States typically impose a low tax on handle – between 0 percent and 2 percent – due to the financial struggles of the horse racing industry and the high cost to produce live racing. Based on this analysis, the State of North Carolina could be realizing up to $274,400 in receipts from this activity. We again emphasize this is on an as-is basis.

The takeout, or amount retained by the horse racing operators/providers from all money wagered, would be an estimated $3 million, based on a national average takeout rate of 22 percent.

Because wagering on horse racing is a specialized form of gambling and has no known correlation with lottery play, we believe that any illegal/offshore pari-mutuel wagering is not impacting NCEL sales or, for that matter, charitable gaming revenues.

In addition to wagering via offshore accounts, attendees at North Carolina's two steeplechase races – the Queen's Cup and the Tyron Block House – are known to engage in side bets or pools in the absence of regulated pari-mutuel wagering in the state. Such amounts are de minimis and not considered in this analysis.

II. Gaming Today in North Carolina

There are three forms of legal gaming today in North Carolina. As noted in Chapter I, they are:

1. Traditional lottery, which is offered and regulated by the North Carolina Education Lottery.
2. Tribal gaming, which is offered and regulated by the Eastern Band of Cherokee Indians ("EBCI") at its Harrah's Cherokee Casino Resort and Harrah's Cherokee Valley River Casino & Hotel in the western part of the state. Games include slot machines, table games, and poker; sports betting could commence later this year. Both casinos are operated by Caesars Entertainment under agreement with the EBCI.
3. Charitable gaming, which is offered by registered organizations and regulated by the Alcohol Law Enforcement ("ALE"), a division of the Department of Public Safety. Games include bingo,[49] raffles and "game nights."

In this chapter, we examine the extent, performance and economic impacts of these three legal forms of gambling.

A. North Carolina Education Lottery

NCEL has been the primary source of gaming products for North Carolina residents for the last 14 years. In Spectrum's opinion, NCEL is one of the better run lotteries in the United States, as is evidenced by three important factors:

1. Its financial performance (detailed below) makes it a clear case of steady progress and relevance to the consumer in North Carolina, and
2. NCEL has been aggressive in making its product portfolio fresh and interesting through innovation and expansion where possible. The one area that stood out is where NCEL is broadening its retailer base both in terms of number and types of retailers.
3. NCEL has been progressive in addressing problem gambling/responsible gambling issues. Spectrum found that NCEL, especially in comparison to its bordering states (Georgia, South Carolina, Tennessee and Virginia), spends an above-average amount of money – directly and indirectly – and devotes an above-average number of staff resources to responsible gambling and problem gambling services.

[49] Low-stakes, non-charitable "beach bingo," an activity Spectrum would characterize as social gaming, is also authorized in North Carolina.

NCEL began sales in 2006 with the sale of its first scratchoff tickets. By the end of 2006, NCEL began selling Powerball and other jackpot and draw games.[50] NCEL surpassed the $1 billion threshold by its second year and has continued to experience steady growth, as shown in the chart below.

Figure 6: North Carolina Education Lottery performance, 2013 – 2019

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Gross Sales	$1,695,008,870	$1,844,636,362	$1,977,485,514	$2,388,976,612	$2,432,843,418	$2,610,417,572	$2,864,945,003
Total Operating Expenses	$1,215,924,034	$1,341,206,063	$1,449,483,907	$1,752,801,115	$1,808,521,314	$1,937,813,790	$2,153,905,242
Prize Expense	$1,024,436,531	$1,135,052,490	$1,231,238,430	$1,491,030,615	$1,543,158,180	$1,647,827,727	$1,845,286,560
Retail Commissions	$118,148,409	$128,550,515	$137,767,027	$166,437,296	$169,439,486	$181,571,111	$198,924,280
Adv. & Mktg.				$23,954,000	$24,239,000	$29,614,000	$29,815,000
Payroll & Related				$19,379,000	$21,299,000	$22,403,000	$22,259,000
Other Expenses	$73,339,094	$77,603,058	$80,478,450	$65,081,952	$62,876,952	$56,397,952	$56,340,952

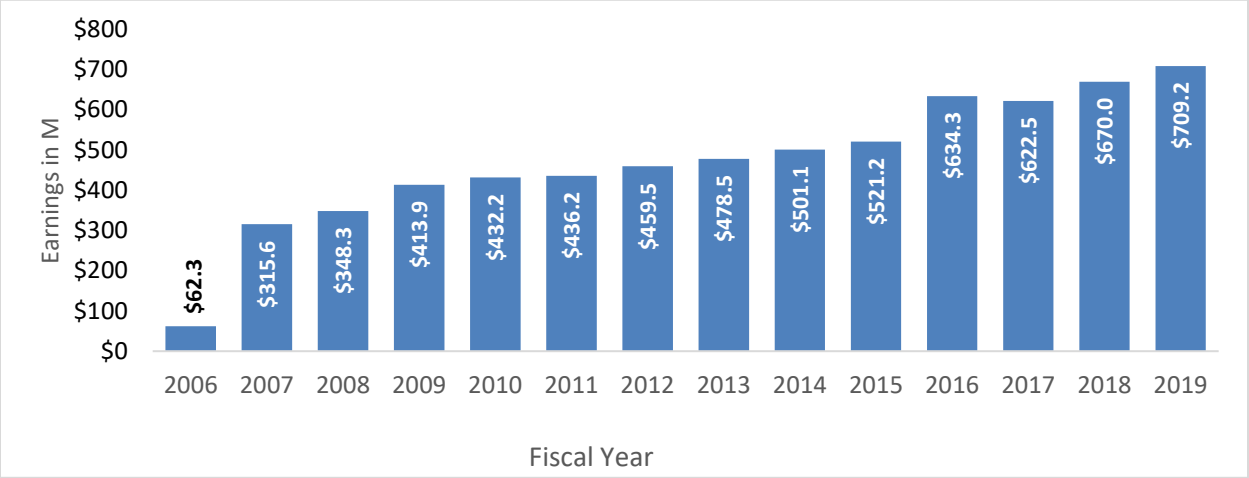
Source: North Carolina Education Lottery

Despite its continued growth, NCEL in 2016 launched a brand revitalization campaign to freshen its existing product portfolio. It updated its logo and updated technology in 2017 that provides state-of-the-art experiences at retail locations and on its digital platform. Over the last few years, NCEL has focused on introducing new and different products to maintain and grow its presence in the North Carolina marketplace. (See a discussion about product development below.)

These efforts have worked, as NCEL has increased total sales by more than $1 billion since 2014, surpassing the $2 billion sales threshold in 2016, then reaching $2.86 billion in FY 2019. As with all lotteries, when gross sales increase the corresponding net revenue or earning to the state increases as well. In FY 2019, NCEL raised $709.2 million for education programs in North Carolina. The chart below provides NCEL earnings for each year of its existence.

[50] "Our Story," North Carolina Education Lottery. https://nclottery.com/About_Story (accessed February 11, 2020)

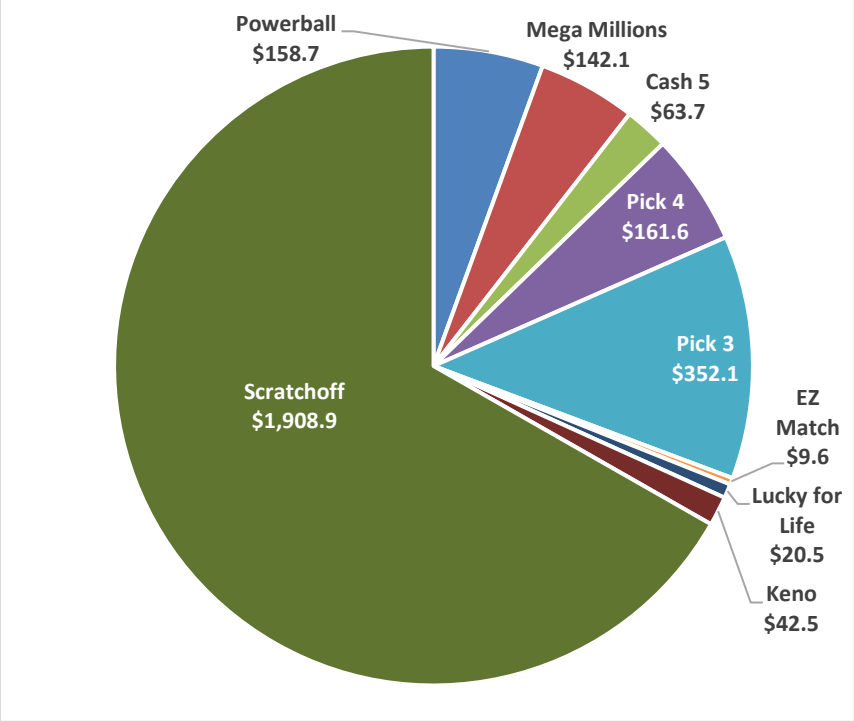
Figure 7: NCEL earnings, 2006 – 2019



Source: North Carolina Education Lottery

In FY 2019, scratchoff tickets continued to be the Lottery's most popular product, generating $1.91 billion in sales, or 66.8 percent of sales. The Lottery launched 57 new scratchoff games during the year. Lottery players received $1.85 billion in prize money, including 66 prizes of $1 million or more.[51]

Figure 8: Breakdown of NCEL sales by game type, FY 2019

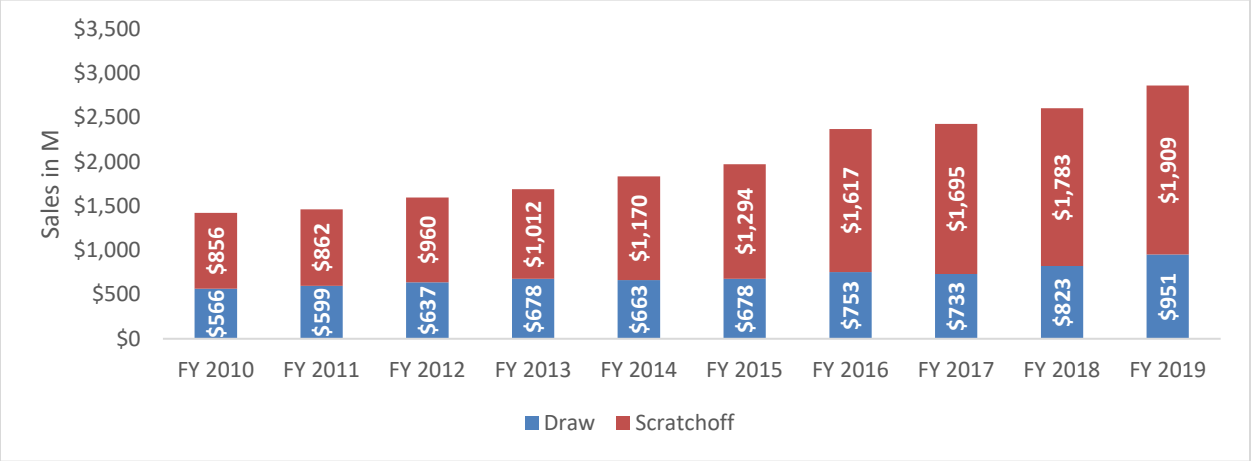


Source: North Carolina Education Lottery

[51] "Our Story," North Carolina Education Lottery. https://nclottery.com/About_Story (accessed February 11, 2020)

The historical breakdown of sales between scratchoff tickets and the jackpot/draw games is shown in the chart below.

Figure 9: NCEL sales split between scratchoff tickets and jackpot/draw games, 2010 – 2019



Source: North Carolina Education Lottery

The State Lottery Act directs the lottery to raise revenue for education purposes. In FY 2019, 64.4 percent of the gross revenues went to prizes, 24.7 percent for education programs, 7 percent for retailer commissions, and the remaining 3.9 percent to administrative expenses (even though the Lottery Act permits up to 8 percent)

It is noteworthy that NCEL has accomplished steady growth in gross sales and earnings reverted to the state without significant increases in its administrative expenses, particularly payroll and advertising. In the last five fiscal years, NCEL has added only six employees while increasing game sales (operating revenue) by more than $1 billion. This efficient management and the ability to improve operating margins is also evidenced by the minimal percentage of gross sales used to pay administrative expenses.

Figure 10: NCEL administrative personnel, 2014 – 2019

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Executive Legal and Support Staff	5	6	7	7	6	6
Finance, Administration, and security	70	70	72	72	74	74
Marketing and advertising	16	17	19	18	21	19
Internal Audit	2	3	3	3	3	3
Information Technology	30	34	34	36	36	36
Human Resources	5	5	5	5	5	5
Communications	12	11	6	6	4	5
Sales	111	109	110	110	108	109
Total NCEL employees (FTE)	**251**	**255**	**256**	**257**	**257**	**257**

Source: North Carolina Education Lottery. FTE = full-time-equivalent employee

In terms of total sales and growth, NCEL is performing well as compared to similar lotteries, as is seen in the chart below. The Georgia Lottery example is particularly illustrative to NCEL in that both lotteries have a digital presence.

Figure 11: Regional state lottery sales, FY 2019

Lottery	Total Sales 2019 (M)	Change from 2018
Florida	$7,150	6.7%
Georgia	$4,766	3.9%
North Carolina	$2,865	5.9%
South Carolina	$1,981	13.2%
Virginia	$2,293	7.2%
West Virginia	$1,100	4.5%

Source: State lotteries

Product Portfolio Development

NCEL has employed an innovative and forward-thinking strategy to keep its product portfolio fresh and interesting to the consumer. In 2006, NCEL started sales with four scratchoff tickets, followed by Powerball several months later.[52] NCEL added draw games Carolina Pick 3 and Carolina Cash 5 in October 2006. Carolina Pick 4 was added in 2009. Mega Millions was added as part of the Mega Millions/Multistate Lottery Association ("MUSL") cross-sell agreement in 2010.[53] In 2016, NCEL began offering the multi-state draw game Lucky for Life. In 2017, NCEL began offering Carolina Keno.

Based on Spectrum's lottery consulting for several states, we have found that NCEL has been a lottery industry leader. In 2015, the Lottery offered its first $30 scratchoff tickets,[54] joining many other states at that price point including Georgia and Virginia. (One state, Texas, offers a $50 scratchoff ticket.) NCEL has been consistent in pursuing innovative strategies to attract new players. Sustaining its effort to innovate will lead to continued success for NCEL.

Starting in 2013, NCEL began offering online play services for selected jackpot and draw games through its online portal.[55] Six other states also have implemented ilottery products: Georgia, Illinois, Kentucky, Michigan, New Hampshire and Pennsylvania. These six states are all

[52] North American State and Provincial Lotteries, "North Carolina Education Lottery." https://www.naspl.org/nasplmembers/North_Carolina

[53] As background, Mega Millions is operated by a consortium of state lotteries in which each lottery has its responsibility to game operation, with the Virginia Lottery acting as the financial clearinghouse for jackpot prizes and shared game expenses. MUSL is a non-profit corporation that operates Powerball and other regional games. MUSL has its own employees that perform IT and financial games tasks, with the member state lotteries paying directing to MUSL to pay jackpots prizes and cover shared game expenses.

[54] "Lottery Timeline," North Carolina Education Lottery. https://nclottery.com/About_Timeline (accessed February 12, 2020)

[55] Ibid.

in the early stages of growth, making it challenging to gauge their future stabilized market potential. With the exception of Illinois and North Carolina, these states all offer digital instant games. Of those states that offer digital instant games, Michigan is most advanced in terms of market size, generating $116 million in gross gaming revenue for 2019.

In 2017, NCEL began offering Carolina Keno, a draw occurring every five minutes. After keno launched in 2017, the game contributed a total of $28.5 million in the seven months that it was on sale for fiscal year 2018.[56] Sales for FY 2019 increased by 49 percent, to a total of $42 million. NCEL continued to increase the number of locations that sell keno throughout the year, which had a positive impact on the performance of the game.

NCEL's overall product development is clearly robust as compared to other lotteries in the US. As stated above, it is one of seven lotteries offering ilottery sales, and Virginia in March 2020 authorized ilottery sales. NCEL is also exploring offering digital instant tickets as part of an effort to maximize revenue on the platform.

Lottery Retailer Development

NCEL has made efforts to expand its retailer base. Successful retailer recruitment starts with providing the Lottery with the tools – including the latest games and technology – to make its case to retailers that the Lottery is a necessary partner to not only grow its own business, but also sustain current levels. This section notes retailer sectors that may be underrepresented in NCEL's retailer demographic or retailer penetration rate. Any underrepresentation does not indicate that NCEL is not earnest in its efforts to recruit new retailers, but rather may not be able to offer the products that certain retailers desire. This section recommends that current recruitment strategies be reviewed to foster better results and to assess what additional tools NCEL may need to successfully recruit new retailers.

As Spectrum recommended in an earlier report for NCEL, the Lottery could increase its number of retailers per capita, also known as retailer penetration rate, which could increase its sales per capita. The following table shows the retailers per capita and sales per capita for nearby lotteries.

[56] "Our Story," North Carolina Education Lottery.

Figure 12: Lottery retailers per capita and sales per capita, selected states, FY 2019

State Lottery	Retailers per Capita	Sales per Capita
Florida	1,564	$332.90
Georgia	1,236	$449.83
North Carolina	1,483	$272.60
South Carolina	1,338	$384.56
Tennessee	1,322	$219.06
Virginia	1,624	$268.64

Source: State lotteries

Accordingly, Spectrum recommends that NCEL devise plans to recruit lottery retailers in areas of the state that may be under-represented to improve its retailer penetration rate as well as to identify potential sports betting retailers that are not current lottery retailers. This process should also be used to recruit new lottery retailers to sell traditional lottery products, which will, in turn, increase traditional lottery sales.

In Spectrum's discussions with both NCEL executive staff and stakeholders, it is clear, as noted above, that the bars and restaurants are under-represented as lottery retailers. This is an anomaly as compared to other state lotteries, such as Ohio and Massachusetts, where this sector is a significant sales generator. This is particularly true in the keno and scratchoff products.

At the end of 2019, NCEL had a total of 7,049 lottery retailers, but only 194 of these were bars and/or restaurants. While that number is comparable to some other southern states, it is very low compared to states like Massachusetts and Ohio. Ohio offers keno and other lottery products in more than 1,000 restaurant and bar locations, while the number for Massachusetts is more than 2,000.[57]

Growing NCEL's roster of bars and restaurants offers significant growth potential both for traditional lottery products and potential new products like sports betting. In FY19, NCEL gross sales were $2,864,945,003. With 7,049 retailers, the average annual sales per retailer is approximately $406,432. If NCEL adds 500 restaurants and bars as lottery retailers, this addition could generate an additional $203 million in sales in the next year.

Spectrum recommends that NCEL continue to focus on recruiting bars and restaurants to not only sell traditional lottery products but also as a potential vehicle to grow other game offerings. This strategy will require NCEL to develop materials to educate potential retailers, particularly bars and restaurants, which should be shown how they can increase foot traffic by selling lottery products, and how they can lengthen the time customers stay in their establishments by offering social games such as keno. Moreover, these products can be offered

[57] Find a Lottery Agent, Massachusetts State Lottery, https://masslottery.com/where-to-play/; Find A Retailer, Ohio Lottery, https://ohiolottery.com/Find-A-Retailer.aspx. (accessed February 2020)

in restaurants and bars with minimal staffing impact through the utilization of self-service betting terminals ("SSBTs") for traditional lottery products. NCEL can offer a compelling case that lottery participation as a lottery retailer will not only benefit the establishment's sales, but also contribute to education funding.

B. Harrah's Cherokee Casinos

The Eastern Band of Cherokee Indians commenced gaming on their designated land, known as the Qualla Boundary, with a video poker operation in Cherokee, NC, in 1997. Under the management of Caesars, which is one of the world's largest gaming companies, Harrah's Cherokee has evolved from a gaming-machine operation into a major, Las Vegas Strip-style destination gaming resort.

The resort now includes 1,108 hotel rooms – making it the largest hotel in the state – along with more than 3,100 slot machines, 147 live table games including poker, and, expected this year, a sportsbook. Nongaming amenities include a 3,035-seat event center, 21,000 square feet of meeting space, pool and spa, retail shops, a "multi-tainment" amusement center, and access to nearby Sequoyah National Golf Club, which is also owned by the EBCI.

The success of Harrah's Cherokee Casino Resort allowed the EBCI in 2015 to open a second gaming property, Harrah's Cherokee Valley River Casino & Hotel in Murphy, about an hour's drive to the southwest of the original Harrah's Cherokee. The Valley River property includes 300 hotel rooms, 1,023 slots, 62 live table games, and, expected this year, a sportsbook. Nongaming amenities include five restaurants.

Under agreement with the State of North Carolina, the EBCI operates gaming within a gaming exclusivity zone that extends westward from Interstate 26 to the state's boundaries.

As is common with tribal casinos, the EBCI does not disclose its revenues. However, based on certain available data points and our own industry channel checks, Spectrum believes that the two Cherokee casinos combined generate net revenue of approximately $900 million per year. We estimate that 70 percent of that amount is being generated by the flagship Cherokee resort, making it one of the highest-grossing casinos in the country. We believe that gaming accounts for well over 90 percent of casinos' net revenues, as some nongaming amenities – most prominently the hotel and food and beverage – are offered on a complimentary or discounted basis to attract players to the casinos' remote locations.

In exchange for the exclusive right to offer live table games, the Cherokee casinos share revenue with the State based on the following schedule; the casinos do not pay a similar fee on slot revenue:

Figure 13: Harrah's Cherokee graduated exclusivity fee for live table gaming

Period	Percent of table games GGR
2012-2016	4%
2017-2021	5%
2022-2026	6%
2027-2031	7%
2032-2042	8%

Source: American Gaming Association

All monies received by the State under the revenue-sharing agreement are dedicated to local school administrative units and charter schools within the state.[58] From inception in 2012 through December 2019, the State has received $58.7 million from the EBCI revenue-sharing agreement (an average of $7.3 million per year).

Both Cherokee casinos are significant employers, with the larger Cherokee casino employing roughly 3,000 and Valley River roughly 1,200.

The EBCI has continually expanded its gaming properties. Capital investment in the bigger Cherokee resort now stands at a total of $1.1 billion, management told Spectrum. In addition, the EBCI is spending another $330 million on a 725-room hotel, 83,000 square feet of conference space, and a 2,000-space parking garage, expected to be completed in 2021, which will create another 400 permanent jobs in addition to the construction jobs. Total capital investment at Valley River is $135 million. Both casinos are developing sportsbooks in anticipation of legal sports betting, spending a combined $24 million on the facilities; they will create a combined 50 permanent jobs.

C. Charitable Gaming

There are three types of charitable gaming in North Carolina, and they are overseen by Alcohol Law Enforcement ("ALE"), a division of the Department of Public Safety:

- **Game nights** usually consist of casino-type games such as roulette, blackjack, poker, and craps. While they have been common in North Carolina for many years, they were technically illegal until 2019.
- **Bingo** as it is played today in the United States has been around since the 1920s. Events are held by sponsoring nonprofit organizations that register with ALE.
- **Raffles** are not uncommon, and while there are laws that set rules for raffles, the State does little more than enforce those rules when it receives complaints.

[58] *State of Play,* "Gaming Regulations and Statutory Requirements: North Carolina," American Gaming Association, 2019. https://www.americangaming.org/wp-content/uploads/2019/07/AGA-States-Gaming-By-the-Numbers_030419_NC-1.pdf

Poole, the ALE Special Agent in Charge of the Gaming Section, said he and five additional agents are responsible for enforcing the gaming laws for the entire state. The legalization of game nights in 2019 has increased that workload. Poole said funding for the addition of two additional agents was part of the State budget legislation that was passed by the House and Senate in 2019 but vetoed by the governor. Instead, according to state law, the previous year's budget rolled over into the new fiscal year.[59]

Spectrum also spoke with Cathleen J. Poole, the Administrator for the Gaming Section of ALE. Her job has traditionally been known as the "bingo administrator," but she has added oversight of certain other forms of gaming over the years. She said she is a one-person department.

Game Nights

On June 1, 2019, North Carolina legalized what are known as "game nights." The legislation created rules for game nights to be held by charities, employers, and trade associations of 25 or more employees or members. Alcohol is permitted at game nights. In fact, events must be held at a facility with an Alcohol Beverage Control permit.

Game nights are defined as "(a) specific event at which games of chance are played and prizes are awarded by raffle and that is sponsored by or on behalf of an exempt organization for the primary purpose of raising funds for the exempt organization or is sponsored by an employer or trade association pursuant to G.S. 14-309.34." The law defines a charitable organization as "(a)n organization that has been in continuous existence for at least five years and that is exempt from taxation under section 501(c)(3), 501(c)(4), 501(c)(5), or 501(c)(6) of the United States Internal Revenue Code."[60]

Casino Party Aces, a prominent vendor for game nights, notes on its website that these rules mean gatherings like "birthday parties, reunions, weddings do not qualify."[61] The games allowed at a game night are roulette, blackjack, poker, craps, simulated horse racing, and merchandise wheel of fortune. These casino-type games may not be played for cash or a cash prize (the definition of which includes "gift cards that are issued by a financial institution or its operating subsidiary and that are usable at multiple unaffiliated sellers of goods or services"). Typically, participants are given chips, markers, or tokens for winning a game. They can exchange these for raffle tickets. Raffles are then held near the end of the event.

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[59] Dawn Baumgartner Vaughan, "Contract workers are being cut at North Carolina's DHHS because of budget stalemate," *The News & Observer,* February 5, 2020. https://www.newsobserver.com/news/politics-government/article239965898.html

[60] Ibid.

[61] Casino Party Aces. https://partyaces.com/get-a-quote/ (accessed February 18, 2020)

The law also stipulates that "(t)he cost of the prizes and expenses to operate the game night event, excluding the cost of food, beverages, and entertainment, shall not exceed the proceeds derived from the event. If the exempt organization hires a game night vendor for the event, payment shall be by fixed fee."[62]

Game nights are not new in North Carolina, according to many people, including State Rep. Jamie Boles, who sponsored the bill. "There have been more than 500 of these kinds of events in the state that are illegal," Boles told *The Pilot*, a newspaper based in Southern Pines.[63] Boles and others told the newspaper that enforcement of the law was inconsistent from county to county, so leveling the playing field was important.

The North Carolina Restaurant and Lodging Association was among the groups that pushed for the law. Among its board members is Scott Brewton, a senior vice president and general manager of Pinehurst Resort. He said Pinehurst and other businesses that did not want to break the law felt they were losing out on some potential business (to businesses that were willing to break the law and/or knew that the law wasn't being enforced in their area).[64]

Game night vendors must pay $2,500 a year to be licensed, plus $25 for each device used at a game night. The fees go to ALE to defray the cost of issuing permits. ALE data show that 11 vendors have registered a total of 458 devices since inception. With 11 vendors paying $2,500 a year to be licensed and $25 for registering each of the 458 devices, game night has brought in $38,950 from vendors to defray ALE's regulatory expenses.

The two vendors that registered the most devices – Casino Party Aces (133) and SE Sports and Entertainment (106) – are owned by the same company. Five vendors registered fewer than 20 devices each. Michael Magee, the owner of Casino Party Aces, which has two offices in North Carolina, as well as locations in New Jersey and Florida, said Casino Party Aces combined operations with SE Sports and Entertainment about 15 years ago but still maintain the two separate brands. The combined company has three full-time employees.

According to Magee, the combined company has held 241 combined events since the game night law took effect on June 1, 2019, but only about 10 percent of those have been fundraisers. The others are for corporate events, trade association events, and similar events. For a typical fundraising event – which are usually bigger than the other events – they hire 12 to 15 part-time employees and pay each of them $80 to $150, depending on their duties.

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[62] North Carolina HB 130.

[63] David Sinclair, "Governor signs game night bill into law," *The Pilot*, May 13, 2019. https://www.thepilot.com/news/governor-signs-game-night-bill-into-law/article_b75d4732-7598-11e9-b7a6-0fe80dabdb7b.html

[64] Ibid.

By Spectrum's calculations, Casino Party Aces/SE Sports and Entertainment paid employees about $35,640 to work charity game nights in less than nine months. (About 24 events, with an average of 13.5 employees per event, each of whom averaged about $110 per event.) Spectrum could not confirm what percentage of the state's charity game nights the combined company handles, but based on the fact that the combined company owned more than half of the devices that have been registered in the state, we feel it is safe to assume that the company is responsible for most of the large events.

Cathleen J. Poole said she issued 230 sponsor permits after the law took effect in 2019, and she had issued 115 sponsor permits in 2020 (as of February 13). Those 345 permits (in about eight months) produced another $34,500. Ms. Poole said the "overwhelming majority" of sponsors are private businesses.

An organization is limited to sponsoring four events per year, and no more than one game night event shall be held in any quarter of a calendar year. Events can be a maximum of five hours per event. Also, there are limits on how many game night events may be held in any one "building, hall, or structure." Facilities "shall not host more than two game nights in any calendar month," which makes it extremely unlikely that any structure would be built for the express purpose of hosting game nights.

Game nights are not allowed in the EBCI gaming exclusivity zone, which is west of Interstate 26.

Bingo

There are two types of legal bingo in North Carolina:

- Nonprofit bingo, such as that run by nonprofit organizations and churches.
- Beach bingo, which cannot offer prizes worth more than $10 and is a for-profit enterprise (and thus will not be included in this section about charitable gaming).

Nonprofit bingo is shrinking in North Carolina and it has been shrinking for many years, following the trend in many states. In 2009, gross receipts from nonprofit bingo in North Carolina were $20.8 million, according to ALE. In 2018, the total was $10.6 million, a decline of 49 percent.

Figure 14: North Carolina nonprofit bingo gross receipts, 2009 – 2018

Year	Receipts (M)	Change
2009	$ 20.8	-5.4%
2010	$ 17.3	-16.6%
2011	$ 16.3	-5.7%
2012	$ 14.7	-10.0%
2013	$ 14.4	-1.9%
2014	$ 12.8	-11.2%
2015	$ 12.9	0.9%
2016	$ 13.6	5.3%
2017	$ 12.7	-6.6%
2018	$ 10.6	-16.3%

Source: North Carolina Alcohol Law Enforcement

Going back even further, North Carolina gross receipts totaled $30.8 million in 2002, according to the National Association of Fundraising Ticket Manufacturers.[65] This means bingo receipts declined 65 percent in 17 years.

Our research in recent years has made clear that bingo is declining across the country because it is an antiquated, paper-based game whose mostly older customer base is dying out and not being replaced. Younger generations generally prefer faster, more technologically advanced games. "It's a dying industry," Michael Sweeney told the (Quincy) *Patriot Ledger* in 2017.[66] Sweeney was (and still is) the executive director of the Massachusetts State Lottery, which oversees bingo games in the state. At its peak in 1984, there were 916 organizations operating bingo games in Massachusetts, Now, the number is somewhere between 120 and 130, Sweeney told the newspaper. The *Patriot Ledger* reported that in 1984, bingo games took in $180.3 million and raised $45.5 million for charities around the state. In 2015, gross bingo revenues were $27.5 million, with $1.2 million going to charities.

Both Sweeney and Cathleen J. Poole of ALE cited competition as hurting bingo performance. This includes legal casinos, unregulated gaming establishments (see Chapter I.B of this report), and expanded state lottery offerings.

Sweeney said there is also competition from the internet, where online games can provide the action and Facebook and Twitter are a source of social interaction that a trip to a bingo hall had provided. "The world has changed so much," Sweeney said. "There's lots of things people used to do 50 years ago that they don't do anymore." Additionally, Sweeney said

[65] NAFTM annual reports. https://www.naftm.org/index.asp?SEC=F1FA48B6-9D97-4F60-8A15-28F2C4AAF1DF&Type=B_BASIC (accessed February 18, 2020)

[66] Fred Hanson, "Bingo crowds dwindling as game loses popularity," *The Patriot Ledger*, February 17, 2017. https://www.patriotledger.com/news/20170217/bingo-crowds-dwindling-as-game-loses-popularity

charitable groups have gotten "more sophisticated" in their fundraising, reducing the need for labor intensive bingo.

Traditionally, bingo has been sponsored by a variety of organizations in North Carolina, Cathleen J Poole said. Veterans organizations such as the American Legion and the VFW and fraternal organizations such as the Loyal Order of Moose and the Elks Club have held a substantial portion of the games. These games are held at the groups' usual meeting places, so there is no cost to rent a facility. The Disabled American Veterans also hold bingo events, as do volunteer fire departments and volunteer ambulance corps. Bingo games held by churches, while popular in some parts of the United States, seem to make up a relatively small portion of bingo games in North Carolina.

In North Carolina, bingo laws varied by county until 1979, when a statewide law was enacted that allowed bingo for non-profit organizations. Organizations that wish to hold bingo games are required to get a license from ALE. Licenses cost $200 and are good for 12 months from the date of purchase. License fees go to ALE. Ms. Poole said there were 248 active nonprofit bingo licenses as of Feb. 13.

The law says organizations are permitted to sponsor bingo events a maximum of two times a week, with the sessions being no more than five hours long and the sessions being at least 48 hours apart.

Until recently, it was illegal to hold a nonprofit bingo event in a location where alcohol was served. That restriction was lifted in 2019. Ms. Poole said the change occurred about the same time that game night legislation – which said that game nights could *only* be held in a facility with a liquor license – was approved. "They couldn't sustain the argument that rich nonprofits could have alcohol and smaller ones couldn't," Ms. Poole said.

Bingo vendors do not need to be licensed in North Carolina. Ms. Poole identified Maiden Amusement Company of Maiden, NC, as perhaps the largest wholesale supplier of bingo supplies in the state. Jim Elliott, the secretary-treasurer of Maiden Amusement, would not comment on the company's bingo-related revenue. He told Spectrum the company has "about five" employees. Elliott estimated that about 65 percent of the company's business is done in North Carolina, with the rest in South Carolina. He said the for-profit beach bingo games are responsible for a substantial portion of the company's sales. For this reason and others, it is difficult for Spectrum to estimate how much income vendors are making on the sale of bingo supplies to groups that run nonprofit bingo games.

Raffles

While there are rules concerning raffles, no licenses or permits are required to hold a raffle. Organizations – "any nonprofit organization, candidate, political committee, or any

government entity within the State" – are allowed to hold no more than four raffles a year.[67] Mr. Poole indicated that the number was two until recently.

The maximum cash prize for any one raffle is $125,000, and the maximum value of a non-cash prize can be no more than $125,000. There are separate rules if real estate is offered as a prize.

Christopher Scott Poole said ALE enforces that rule based on complaints. ALE says it does not have any data on gross receipts produced by raffles. Because organizations that hold raffles do not need a license, and because the State does not collect data on raffles, Spectrum is unable to determine the economic impact of raffles in North Carolina.

Conclusion

In the grand scheme of legal gambling in any state, charitable gaming typically is small potatoes compared to the lottery, casinos, sports betting and other forms of legal, for-profit gambling. As such, the economic impacts of charitable gaming may barely register on a statewide basis. However, for the sponsoring/hosting organizations these activities can provide valuable funds while also offering a fun, sociable occasion with low-stakes wagering.

In North Carolina, our summary findings for charitable gaming are as follows:

- Game night vendors have paid $38,950 for licenses and to register devices. Sponsors have paid $34,500 to host game nights. The state's largest game night vendor paid employees an estimated $35,640 to work charity game nights.
- Bingo is becoming less popular in North Carolina, as it is elsewhere. Nonprofit organizations holding bingo nights for charity reported gross receipts of $10.7 million in 2018. That is 49 percent less than in 2009.
- The economic impact of raffles is difficult to determine. The State does not track information about raffles.

D. Economic Impacts of Legal Gaming in North Carolina

Methodology

The economic impact analysis relied on data developed in the sections above and the PI$^+$ economic impact model developed by Regional Economic Models, Inc. ("REMI"). The PI$^+$ model used for this study is a single-region model of North Carolina and is identical to the model this team used on our previous study evaluating sports betting in North Carolina. The data available

[67] NC General Statutes - Chapter 14 Article 37.
https://www.ncleg.gov/EnactedLegislation/Statutes/PDF/ByArticle/Chapter_14/Article_37.pdf (accessed February 18, 2020)

and the methods to model each of the three types of gaming varied. In each case, we attempted to model the impacts over 10 years, from 2010 through 2019.

Tribal Gaming

Due to the nature of tribal gaming, detailed revenue data is not publicly available. However, we estimated tribal revenue using the tribe's revenue-sharing payments to the State and our team's estimate of the share of gaming revenues derived from table games. From 2012 onward, the Eastern Band of Cherokee Indians has maintained a gaming compact with North Carolina, which commits the tribe to share a percentage of table games revenue with the State. Over the course of this analysis, the revenue percentage is four to five percent. Using this share, we found the table games revenue for all full years of the compact (2013-2019). Then using an estimate of the share of total revenue coming from table games revenue (25 percent), we estimated the total revenue for tribal gaming. To fill in the data for 2010 through 2012 for the Cherokee casino, we used the compound annual growth rate from 2013 to 2019 to estimate the missing years. Because Valley River opened in 2015 (after the compact was in effect), we did not need to estimate missing years.

Our team also obtained data on employment and investments at the tribal casinos. We assumed the employment at each casino was flat at 3,000 at Cherokee and 1,200 at Valley River. We estimated annual investment spending using known costs for known projects. We did not need to separately model the impacts of capital investments prior to 2010 as the construction impacts are outside of our analysis period and the PI^{+} model automatically assumes ongoing maintenance of existing capital stock.

The employment and revenues of the tribal casinos were entered into the model in the Arts, Entertainment, and Recreation industry (which includes all gaming sectors). Investment was entered as construction activity. Finally, the revenue to the State was entered as state government spending in the year incurred.

Charitable Gaming

North Carolina maintains three different types of charitable gaming: game nights, bingo, and raffles. There was no data available for raffles so it is excluded from this analysis. Bingo has occurred in the state throughout our analysis period. Available data was limited to the gross receipts from bingo to the charitable organizations that host the games and the license fees paid to the State. For modeling purposes, we assumed that the host organizations were in the Other Services industry, which includes religious, grantmaking, civic, professional, and similar organizations. We assumed bingo gross receipts to be equivalent to revenue to this industry. Estimating the economic impacts of the actions of charitable institutions within the community is outside the scope of this analysis. The fees from licenses and permits were modeled as state government spending in the year incurred.

Game nights are a new addition to the charitable gaming landscape of North Carolina. These activities include casino-type games such as roulette and blackjack but do not pay out cash prizes. Rather, winnings are exchanged for tickets to a raffle. Furthermore, unlike bingo, organizations hosting game nights typically hire a vendor to supply the games and attendants. We were able to obtain data on the vendors and the value of permits and fees paid to the State but did not have any data on the revenues to the host organizations.

Our data suggests that the top vendor currently provides two-thirds of game nights. Over the seven months that game nights have been available, it has done 24 events, which implies 36 total events for all vendors. The top vendor averages 13.5 workers per event and pays $110 per worker per event. We assumed that the remaining one-third of game nights were similar and thus applied the same employment and wages to the other 12 events.

For modeling, the employment number was annualized using wages for the Arts, Entertainment, and Recreation sector. As with bingo, fees and permits were modeled as state government spending.

Lottery

The data availability for the lottery was much better than for the other two gaming channels. Details on revenues, prizes, retailer commissions, and expenses were available for the entire analysis period. We also obtained data on the number of lottery retailers in 2019 and the number of retail jobs associated with lottery sales. We assumed both these numbers remained flat over the analysis period.

The lottery transfers its "profit" – i.e., revenues less all prizes, commissions, and expenses – to the state treasury, so it was modeled as state government spending. Retailer commissions and employment were modeled as activity in the retail industry. The lottery's own employment and operations were modeled in the Arts, Entertainment, and Recreation sector.

Reallocation

A final element common to all three gaming types is reallocation. Each dollar spent on gaming (or any other good or service) is one dollar that is not going to something else, be it other consumption or savings. Therefore, no economic choice is cost-free but rather implies what economists call opportunity cost; i.e., the cost of the thing foregone. In the context of this analysis, excluding reallocation is the same as counting the same dollar twice.

Because the true amount of reallocation is unknown, we typically assume 50 percent of spending attributable to instate residents comes at the cost of other instate consumption. This estimate is in line with findings in other jurisdictions. For the lottery and charitable gaming scenarios, we assumed that all gross gaming revenues came from North Carolina residents and thus all revenues were subject to 50 percent reallocation. For tribal gaming, we estimate that

only one-third of the casinos' revenues come from North Carolinians so only one-third of tribal GGR is subject to 50 percent reallocation. Reallocation is modeled as a reduction in consumption proportionally across all consumption categories.

Lastly, to further account for the effects of reallocated consumer spending, we estimated the sales taxes lost from the shift in consumption patterns. Using 2018 data from the Federation of Tax Administrators,[68] we obtained total State tax revenues and the share of total revenues comprised of sales taxes. Using the baseline estimate of consumption expenditures from the REMI model, we calculated the effective sales tax rate on all consumption in North Carolina. We then applied this to the reallocated spending to estimate a reduction in sales tax revenues for each year of the analysis. Similar to the tax gains, the tax loss was assumed to impact government spending in the year incurred.

Economic Concepts Glossary

To fully appreciate the economic impacts, it is helpful to understand the terms that describe the results discussed in this report.

Employment: Employment is a count of jobs, not people, by place of work. It counts all jobs with the same weight regardless of whether the position is full-time or part-time or the labor of a self-employed proprietor.

Additionally, jobs are counted as **job-years**, which are equivalent to one job lasting for one year. This is a similar concept to "person-hours." Jobs often carry over from year to year and therefore the jobs in one year include many of the same jobs as in the previous year. For example, if a new business opens with 10 employees, then the host community of that business will have 10 more jobs than it would have had in every future year that the company maintains its workforce. For example, over 5 years, the business will have created 50 job-years (10 jobs at the company x 5 years = 50 job-years), though it is possible that it is not the same 10 people who are working there over time. When reviewing changes in employment across multiple years, knowledge of the concept of job-years is vital to proper interpretation.

Output: Output is the total economic value of production, sales, or business revenues, whether final (i.e., purchased by the end user) or intermediate (used by another business to produce its own output). It includes the value of inputs to production, wages paid to employees, capital expenses, taxes, and profit. It is useful as an indicator of business activity, but it should not be construed as net new economic activity.

[68] Federation of Tax Administrators, "Revenues/Burdens." https://www.taxadmin.org/revenues-burdens (accessed September 19, 2019)

Personal Income: Personal income is income and benefits from all sources earned by all persons living in an area. It excludes the income earned by non-resident workers who commute into an area, but it includes the income of residents who commute out.

Value Added: Value added is the value of all final goods and services created in an economy. It represents new economic activity and is also known as gross product or net economic impact. It differs from output by the value of inputs to production. Value added provides a useful summary of the economy, which is why all nations and US states report their economic growth in this way, calling it either gross domestic product or gross state product as appropriate. Its usefulness derives from the elimination of the double-counting inherent in output, which stems from the inclusion of inputs. An example of the double-counting of inputs can be found and simplified in the process of making and selling a loaf of bread. A farmer sells wheat to a mill, which then sells flour to a baker, who then sells bread to the final customer. The sale price of the bread includes the cost of all necessary inputs including growing the wheat, milling the flour, and baking the bread. Value added counts only the sale price of the bread to the final consumer, which is the net new value created in the economy. On the other hand, output counts the revenues earned by every business in the supply chain, which means that the value of the wheat and flour are counted more than once.

Economic Impact Results

Economic impact analysis is used to find out how a change introduced in an economy creates additional changes beyond itself. These ripple effects are primarily caused by business-to-business transactions and consumer purchases. In this study, we evaluate the contribution of the three existing forms of gaming in North Carolina: tribal, lottery, and charitable gaming. Their contributions are the direct effect. To remain ongoing concerns, gaming operators make purchases from a series of vendors that then make purchases from their own vendors and so on down the supply chain. These are called indirect effects. Employees hired to support the existing forms of gaming and the employees at each impacted vendor have more money to spend, which creates new activity at consumer-oriented businesses. These are called induced effects. Together, direct, indirect, and induced effects create the total economic impacts of a new business.

Summary Impacts

The PI$^+$ economic model used by us for the study takes the direct effects and uses its understanding of North Carolina's economy to calculate indirect and induced effects. The direct effects are the cumulative changes described in the methodology of the economic impact section and include employment, private revenues, public revenues, and reallocation. The structure of PI$^+$ includes a description of supply-chain relationships between all the sectors of the economy and the import and export relationship between North Carolina and the rest of the nation and

world. Combined, these elements of the model estimate the indirect changes. Additionally, PI+ includes the employment and wage characteristics of each sector and the average consumption patterns of North Carolina residents. These elements yield the induced changes. Therefore, the modeling process begins with the modeler entering the direct changes into the economic impact model, continues through the model's calculation of the indirect and induced effects, and ends with the analysis of the results by the modeler. The results of this process are described in this section of the report. The results section focuses on the combined scenario of all three types of gaming but concludes with a summary of the impacts of each type separately.

When combined, the three existing forms of gaming in North Carolina have a positive economic contribution to the state. This finding holds even after accounting for the reallocation of consumer spending away from other instate activities toward gaming. In an average year, gaming creates or supports 23,500 jobs and nearly $2.4 billion of value added, also known as gross state product. Business revenues, or output, average $3.8 billion per year. In addition, gaming supports nearly $1.5 billion of income annually to North Carolinians, of which roughly $1.3 billion is disposable income. Lottery supports approximately 63 percent of these impacts while tribal gaming and charitable gaming support 36 percent and 1 percent, respectively.

Figure 15: Summary economic impacts of existing gaming in North Carolina

	Annual Average	10-Yr. Cumulative
Total Employment (job years)	23,506	235,060
Output (M)	$3,760	$37,596
Value-Added (M)	$2,351	$23,507
Personal Income (M)	$1,535	$15,351
Disposable Personal Income (M)	$1,331	$13,309

Source: Spectrum Gaming Group, PI+

Detailed Impacts

The summary impacts above provide a snapshot of the results of our analysis of the economic contributions of existing gaming. The following results expand on those above to highlight changes over the analysis period and to explain in detail the relationship between the results.

As is generally the case in gaming, the key factor driving the impacts is gross gaming revenue. The opportunity to capture these revenues is the motivation behind business decisions to hire and invest. Taxes on GGR or fees on the licenses and permits required to engage in gaming are the source of new revenues to the State, which it uses to hire workers, fund programs, and increase public investment. Finally, some of the GGR comes at the expense of monies that were previously supporting other businesses and sales taxes.

Over the analysis period, from all sources GGR averages $1.4 billion per year, of which $509 million is assumed to be reallocated from other instate consumption. This $923 million of

annual net stimulus directly drives the increases in output seen in the analysis. Annual output contributions are nearly $3.8 billion, with a 10-year cumulative total of $37.6 billion. This result suggest that each dollar of GGR creates or supports an additional $1.63 of output elsewhere in North Carolina's economy.

Figure 16: Output impacts of existing gaming

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg.	Cum.
Output (B)	$2.59	$3.25	$3.54	$3.19	$3.36	$3.74	$4.26	$4.25	$4.60	$4.82	$3.76	$37.60

Source: Spectrum Gaming Group, PI+

Much as GGR and reallocation drive output changes, they directly impact the revenues coming to the State from gaming. Tribal revenue sharing, lottery "profits," and fees and permits on charitable gaming all flow into the State treasury. Furthermore, losses in sales tax revenues from reallocated consumption offset these gains. On net, we estimate that existing gaming contributed an annual average of $587 million to State coffers or nearly $5.9 billion cumulatively over 10 years; currently it is more than $700 million per year.

Figure 17: Direct State revenue impacts of existing gaming net of changes in sales taxes

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg.	Cum.
State Revenues (M)	$426	$580	$602	$487	$512	$578	$628	$647	$690	$726	$587	$5,874

Source: Spectrum Gaming Group, PI+

Neither output nor state government revenues reflect *net* new economic activity. That amount is captured by value added, also called gross state product. Value added excludes the value of the goods and services used up in production and thus shows only the new value created in an economy. Given that it is a subset of output, value added follows the same yearly pattern as output. Like output, value added climbs steadily except for a single-year decline in 2013 after the construction of Harrah's Cherokee Valley River concluded. Gaming has contributed an average of $2.4 billion to North Carolina's gross state product annually and has contributed $23.5 billion in total over the 10 years ending in 2019.

Figure 18: Value added impacts of existing gaming

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg.	Cum.
Value-Added (B)	$1.60	$2.02	$2.20	$1.99	$2.10	$2.34	$2.66	$2.67	$2.89	$3.03	$2.35	$23.51

Source: Spectrum Gaming Group, PI+

In order to produce the economic activity shown in this study, labor is needed. We estimate that gaming directly supports an average of nearly 8,000 jobs. After accounting for its total contributions, existing gaming supports 23,506 jobs meaning each gaming job supports an additional 2.21 jobs elsewhere in North Carolina. This multiplier is higher than is typically seen in an economic impact and is at least partially attributable to the impacts of job creation at lottery retailers as described below.

Figure 19: Employment impacts of existing gaming

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg.	Cum.
Total Employment (job years)	21,768	25,158	25,891	21,274	21,237	22,685	23,849	23,520	24,700	24,978	23,506	235,060

Source: Spectrum Gaming Group, PI+

As described above, the employment and output multipliers are quite different at 2.21 and 1.63, respectively. The reason for this disparity is the connection between the retail industry and lottery. The figure below shows the top five impacted sectors by cumulative employment. It also shows these sectors' output and their share of total employment and output. For every sector but retail, the share of employment and output are similar, indicating that those sectors contribute to the modeling inputs and results in a balanced way. On the other hand, retail has 18 percent of all jobs but only 9 percent of output. The factor behind this result is the additional retail clerks supported by lottery sales. Our research found that each retailer needs 0.5 more workers to support lottery sales. These additional employees have a relatively low productivity (i.e., output per worker), which reveals itself in large numbers of workers with proportionally small output.

Figure 20: Top impacted sectors by cumulative employment and respective output

Industry	Employment (Job Years)	Output (M)	Share of Cumulative Employment	Share of Cumulative Output
Retail trade	42,486	$3,256	18%	9%
Arts, entertainment, and recreation	42,415	$7,600	18%	20%
Construction	30,434	$4,303	13%	11%
Administrative, support, waste management, and remediation services	8,688	$959	4%	3%
Accommodation and food services	7,479	$708	3%	2%

Source: Spectrum Gaming Group, PI+

Existing gaming in North Carolina creates or supports 23,506 jobs per year. This employment supports income gains of $1.5 billion per year, or $15.4 billion over 10 years. This new income implies an average of $65,300 per worker.[69] A portion of personal income will be taken for local, state, and federal taxes. Net of these deductions, we estimate disposable personal income created or supported by existing gaming to be $1.3 billion per year and $13.3 billion over 10 years.

Figure 21: Personal income impacts of existing gaming

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg.	Cum.
Personal Income (B)	$1.00	$1.31	$1.47	$1.31	$1.39	$1.53	$1.67	$1.74	$1.91	$2.02	$1.54	$15.35

Source: Spectrum Gaming Group, PI+

[69] Personal income includes the value of benefits, property income, and government transfers and is thus greater than simple wage or salary.

Figure 22: Disposable personal income impacts of existing gaming

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg.	Cum.
Disposable Personal Income (B)	$0.86	$1.13	$1.27	$1.14	$1.21	$1.34	$1.45	$1.52	$1.65	$1.74	$1.33	$13.31

Source: Spectrum Gaming Group, PI+

As mentioned in the introduction to this section, lottery accounts for the lion's share of the combined impacts found in this study. Due to the effect of retail workers, it has an outsized employment contribution relative to its output contribution at 64 percent of jobs and 58 percent of output. On average across all measures, lottery contributes 63 percent of the total followed by tribal gaming at 36 percent. Due to both its newness and its size, charitable gaming contributes little economically to the state. That being said, we did not attempt to measure the impacts of the actions of charitable organizations, which will have some, likely positive, economic impacts beyond those measured here.

Figure 23: Summary impacts by gaming type

Annual Average	Tribal	Lottery	Charitable
Total Employment (job years)	8,277	14,936	295
Output (M)	$1,544	$2,182	$33
Value-Added (M)	$935	$1,395	$21
Personal Income (M)	$496	$1,021	$18
Disposable Personal Income (M)	$430	$885	$15

Source: Spectrum Gaming Group, PI+

As stated in the methodology, we chose to reallocate 50 percent of eligible spending away from other North Carolina-based activities to gaming. For the reasons stated in the methodology, we believe this is a sound assumption. However, to give readers more context, we also ran the analysis with 0 percent and 100 percent reallocation. The scenario with no reallocation can be considered the best case because it assumes that all of the new revenues going to gaming come without any cost to existing economic activity in North Carolina. Conversely, the scenario with 100 percent reallocation is the worst-case scenario because it assumes that every dollar of GGR that comes from a North Carolina resident is being taken away from an existing purchase within the state. The summary results of all three scenarios are presented below.

In general, all levels of reallocation provide net positive economic impacts. The different reallocation scenarios imply that North Carolina can expect gaming to contribute an annual average of at least 19,000 and at most near 28,000 jobs. Similarly, net economic impact or gross state product could range from an annual average of $1.9 billion to $2.8 billion. In general, we estimate that each 10 percent increase in reallocation reduces the annual employment impacts by 868 jobs and annual gross state product by $90 million. Commensurate changes in output and personal income would also occur.

Figure 24: Comparison of combined scenarios with different rates of reallocation

Scenario	Total Employment		Output ($B)		Value Added ($B)		Personal Income ($B)	
	Avg.	Cum.	Avg.	Cum.	Avg.	Cum.	Avg.	Cum.
0% Reallocation	27,844	278,438	$4.50	$45.02	$2.81	$28.06	$1.82	$18.24
50% Reallocation	23,506	235,060	$3.76	$37.60	$2.35	$23.51	$1.54	$15.35
100% Reallocation	19,169	191,687	$3.02	$30.18	$1.90	$18.95	$1.25	$12.46
Chg. With Each 10% Increase in Reallocation	*-868*	*-8,675*	*($0.15)*	*($1.48)*	*($0.09)*	*($0.91)*	*($0.06)*	*($0.58)*

Source: Spectrum Gaming Group, PI+

III. Potential New Gaming Activities for North Carolina

In this chapter, we project the revenues and State tax receipts for forms of gaming that would be new to North Carolina, including the following:

- Casino gaming (commercial; i.e., non-tribal)
- Distributed gaming (e.g., video gaming terminals at bars, taverns and fraternal organizations or other authorized locations)
- Internet casino gaming (casino-style gaming online; commonly called "igaming")
- Sports betting (as operated by a state lottery)
- Pari-mutuel horse racing
- Ilottery (e.g., "digital instant" games played online, as offered through a state lottery)

It is critical to note that the following projections assume that each form of gaming is offered exclusively. That is, for example, only distributed gaming would be added to the existing North Carolina gaming landscape – and none of the other five potential gaming options listed above would be implemented along with distributed gaming. The purpose of this assumption is to demonstrate to the State of North Carolina the full potential of each form of gambling.

A. Commercial Casino Gaming

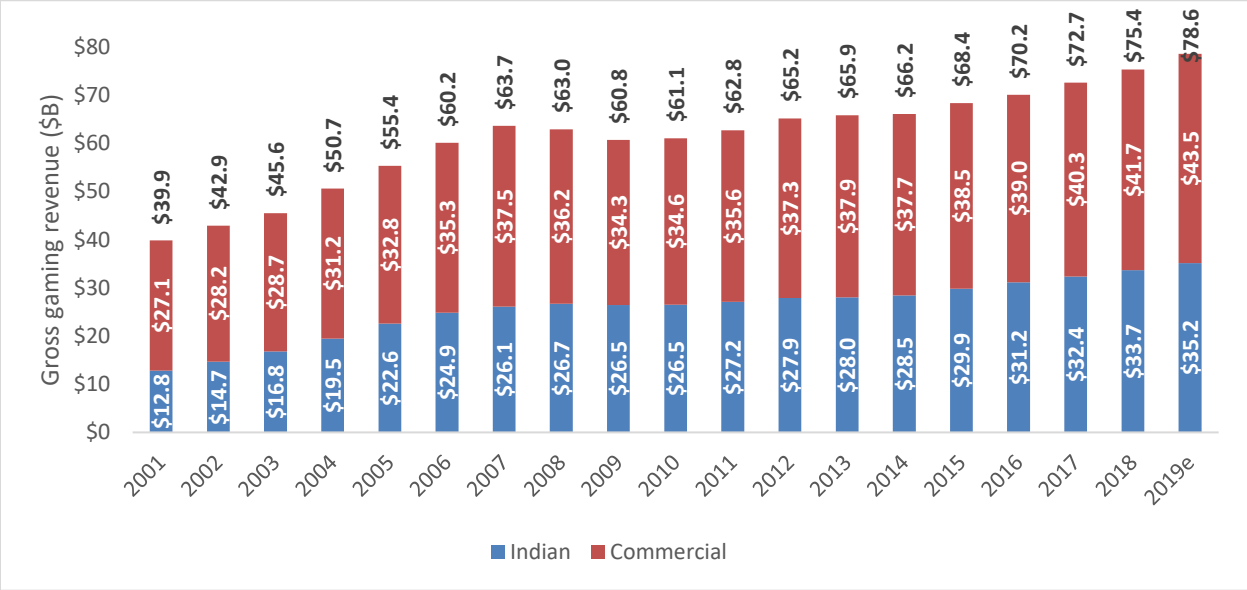
In the past 30 years casino gaming has become a major industry in the United States, evolving from a niche market with a somewhat forbidding mystique to mainstream entertainment. Prior to the 1990s, casino gambling was legal only in Nevada and Atlantic City, NJ. Since then, commercial casino gaming has spread across 24 states, and Indian casinos are in 28 states. Twelve states have both commercial and Indian casinos. In all, there are more than 1,000 casinos of all types in 42 states, including land-based casinos, floating casinos, racetrack casinos, and casinos that use historical horse racing machines in lieu of true slot machines.

Many states that initially approved commercial casino gambling did so as a means of economic development, and they set their gaming-tax rates relatively low (25 percent or less of GGR) to encourage capital investment and high employment. Illinois, Iowa, Louisiana, Mississippi and Missouri saw riverboat gaming as a tool for economic development and revitalization of areas in economic decline. Colorado and South Dakota authorized gaming in historic mining towns as part of an effort to draw tourists and revitalize the towns. Over the last 15 years or so, many states have introduced casino gaming more as a source of tax revenue and have set their gaming-tax rates relatively high (in some cases more than 50 percent). Maryland, New York and Pennsylvania are examples of states using a higher-tax scheme.

The Indian Gaming Regulatory Act ("IGRA") of 1988 allowed Indian tribes to operate casinos on their reservations or on land taken into trust for the purposes of allowing economic development. By 2000, the National Indian Gaming Commission reported that revenues at the 309 casinos operated by 195 tribes totaled $8.5 billion. By 2018, tribal gaming revenues across the country totaled $33.7 billion.

Together, commercial and tribal GGR totaled $78.6 billion in 2019, as shown in Figure 25. That equates to annual casino spend per adult of $331 nationwide.

Figure 25: US casino gross gaming revenue, 2001 – 2019



Source: American Gaming Association, National Indian Gaming Association, Spectrum Gaming Group

Forecasting North Carolina Casino Revenue

To forecast the potential casino gaming revenues in North Carolina, it is instructive to examine the performance of casinos in other states. Such states regularly report performance data as a means of transparency in their efforts to ensure the public that the gambling revenues are being properly accounted for and the games are fair.

As part of this analysis, Spectrum also identified the general locations of the assumed North Carolina casinos based on the adult population and the competitive landscape.

Three assumptions are central to developing our casino GGR estimates:

1. The unregulated gaming market in North Carolina will be virtually eliminated. As discussed in Chapter I.B above, this gaming sector is widespread and if allowed to continue to thrive would significantly reduce our casino GGR estimates. Only by assuming that this sector will be eliminated can Spectrum demonstrate the full potential of casino gaming to the State of North Carolina. As discussed above, this activity can be eliminated if the State has the will to do so.

2. Virginia will have casinos before North Carolina, and four of them will be located near the North Carolina border. The Commonwealth of Virginia was expected to enact casino gambling in 2020.

3. There is no change to the existing Harrah's Cherokee operations in western North Carolina.

Spectrum developed our forecast for North Carolina casino GGR by analyzing GGR as a percentage of gross domestic product ("GDP"). This method can be further refined by evaluating the gaming spend in relevant metropolitan statistical areas ("MSAs"). As in most states, North Carolina has several MSAs that have different demographics and income levels than are found in rural areas. It is necessary to address these differences to forecast casino GGR and to develop a sizing recommendation that fits statewide.

The US Bureau of Economic Analysis ("BEA") estimates GDP by state, county and MSA.[70] Using the GDP data from the BEA and casino data from state agencies it is possible to develop the percentage of area GDP that is spent on casino gaming. This metric can be used to generate estimates for potential casino GGR in areas that do not currently offer casino gaming. Unlike a static measure of GGR per adult or per slot machine, using a GDP-based metric takes into account the relative wealth of the area. It is common knowledge that higher disposable incomes lead to higher spending on all forms of entertainment, including casino gaming.

Nationwide, it has been estimated that all forms of gaming account for 0.91 percent of GDP.[71] This estimate includes all major forms of gambling – lottery, sports betting, internet casino gaming, pari-mutuel, and casino gaming. The St. Louis Federal Reserve provides data on personal consumption expenditures ("PCE") and the portion of PCE dedicated to "gambling services."[72] Using these data, we can estimate the percentage of personal consumption dedicated to gambling including all forms of legal gambling, of which casino gaming is a subset.

[70] Bureau of Economic Analysis, "Gross Domestic Product by Metropolitan Area, 2017," September 18, 2018. https://www.bea.gov/news/2018/gross-domestic-product-metropolitan-area-2017

[71] Research and Markets, "Global Gambling Market 2018-2022 - Gambling Accounted for 0.91% of the US GDP in 2017, Research and Markets," February 13, 2018. https://www.prnewswire.com/news-releases/global-gambling-market-2018-2022---gambling-accounted-for-091-of-the-us-gdp-in-2017-300597808.html

[72] St. Louis Federal Reserve, "Personal consumption expenditures: Services: Gambling," through January 30, 2020. https://fred.stlouisfed.org/series/DGAMRC1A027NBEA%20%20https://fred.stlouisfed.org/series/PCE

Figure 26: US gambling services as a percentage of personal consumption expenditures, 2014 – 2019

Year	Personal Consumption Expenditures (B)	PCE: Gambling Services (B)	Gambling Services as % of PCE
2014	$ 12,040	$ 122	1.01%
2015	$ 12,089	$ 126	1.04%
2016	$ 12,481	$ 131	1.05%
2017	$ 13,079	$ 136	1.04%
2018	$ 13,698	$ 143	1.04%
2019	$ 14,228	$ 147	1.03%

Source: Federal Reserve Economic Data, St Louis Federal Reserve

Figure 27 shows casino GGR as percentage of GDP from MSAs that are similar to those in North Carolina, as they are not traditional tourist or gaming destinations such as Las Vegas, Reno, or Atlantic City. Additionally, these MSAs are well defined, with few gaming properties surrounding them that could lead to "leakage" of revenue out of the MSA. Other metro areas that offer gaming, such as Baltimore, Philadelphia and Pittsburgh, have many casinos outside the MSA that are patronized by MSA residents. For example, Atlantic City is an hour's drive from Philadelphia, and Pittsburgh patrons visit casinos in Ohio and West Virginia. As such, the selected MSAs present an opportunity to estimate the prevalence of casino gaming and use that to derive estimates for North Carolina MSAs. The presence of licensed video gaming terminals ("VGTs") in Illinois has been factored in to develop the full picture of gaming in that state. Currently there are more than 34,000 machines in more than 7,200 locations competing with casinos for patrons' gambling dollars.

Figure 27: Gaming revenue as a percentage of GDP in selected US metro areas, 2019

	GDP	Casino Win	Casino Win % GDP	VGT Win	VGT Win % GDP	Gaming as % GDP
Chicago MSA (IL & IN)	$689,464,700,000	$ 1,756,600,000	0.25%	$ 798,300,000	0.12%	0.37%
St Louis MSA (MO & IL)	$169,839,400,000	$ 747,000,000	0.44%	$ 123,400,000	0.07%	0.51%
Quad Cities MSA (IA & IL)	$20,546,900,000	$ 204,800,000	1.00%	$ 25,800,000	0.13%	1.12%
Peoria MSA	$25,923,800,000	$ 74,100,000	0.29%	$ 45,400,000	0.18%	0.46%
IL/MO/IA MSA Casino & VGT	**$905,774,800,000**	**$2,782,500,000**	**0.31%**	**$ 992,900,000**	**0.11%**	**0.42%**
Cincnnati- Dayton	$170,677,900,000	$ 953,630,000	0.56%	$ -	0.00%	0.56%
Columbus	$129,328,000,000	$ 471,750,000	0.36%	$ -	0.00%	0.36%
Cleveland - Akron	$187,372,400,000	$ 807,270,000	0.43%	$ -	0.00%	0.43%
Ohio Casinos/Racinos	**$487,378,300,000**	**$ 2,232,650,000**	**0.46%**	**$ -**	**0.00%**	**0.46%**
SELECTED MSAs	**$1,393,153,100,000**	**$ 5,015,150,000**	**0.36%**	**$ 992,900,000**	**0.07%**	**0.43%**

Source: State gaming commissions, Bureau of Economic Analysis, Spectrum Gaming Group

Making the assumption that over time North Carolina casino players would behave as players in other states and cities do, the percentage of GDP to casino GGR can be applied to the state as a whole and to its metro areas. Using this method results in a baseline casino GGR estimate of $2.1 billion, as shown in Figure 28.

While the BEA provides estimates for GDP by MSA, it would take a few years for casino gaming in North Carolina to be developed. To accommodate this development period, Spectrum

inflated the GDP estimate from 2018 at 2.25 percent annually to arrive at an estimate for 2024. Data from metro areas with established gaming in the figure above show casino GGR as 0.43 percent of area GDP. This average ranges from 0.36 percent in Columbus, OH, to 1.12 percent in the Quad Cities MSA. For purposes of estimating the casino revenue potential in North Carolina, Spectrum used 0.40 percent of GDP in the MSAs, and 0.27 percent of GDP in the balance of the state due to the distance from a casino. The estimate nets to 0.36 percent statewide, which is broadly in line with the data from other regions.

Figure 28 shows Spectrum's forecasted 2024 North Carolina baseline casino GGR; i.e., it does not yet:

1. Subtract the amount now going to existing Harrah's Cherokee casinos; or
2. Factor the impacts of the assumed new casinos in Virginia; or
3. Factor the impacts of out-of-state visitation to the assumed new North Carolina casinos.

Figure 28: Forecasted 2024 North Carolina in-state casino GGR as a percentage of GDP – without competitive impacts

Metropolitan Statistical Area	Est. GDP 2024 (millions)	Gaming Spend as % of GDP	% of Gaming to Casino	% of Gaming to VGTs	Casino Revenue (millions)	VGT Revenue (millions)	Total Gaming Revenue
Charlotte (Incl SC)	$ 203,360	0.40%	100%	0%	$ 813	$ -	$ 813
Raleigh Durham	$ 148,126	0.40%	100%	0%	$ 593	$ -	$ 593
Winston Salem	$ 34,763	0.40%	100%	0%	$ 139	$ -	$ 139
Asheville	$ 23,580	0.40%	100%	0%	$ 94	$ -	$ 94
Wilmington	$ 16,769	0.40%	100%	0%	$ 67	$ -	$ 67
Balance of State	$ 156,593	0.27%	100%	0%	$ 418	$ -	$ 418
Entire State	**$ 583,190**	**0.36%**	**100%**	**0%**	**$ 2,124**	**$ -**	**$ 2,124**

Sources: US Bureau of Economic Analysis, Spectrum Gaming Group

As the estimated casino GGR has been based on a percentage of GDP, the estimated win per adult in North Carolina is in line with the win per adult in other states, as shown in Figure 29.

Figure 29: Forecasted North Carolina casino GGR per adult compared to other states

State	Est. Adults (21+)	Casino Revenue	VLT Revenue	Total Revenue	Rev/Adult
Illinois	9,250,000	$ 1,354,400,000	$ 1,676,670,000	$ 3,031,070,000	$ 328
Ohio	8,530,000	$ 850,980,000	$ 1,090,500,000	$ 1,941,480,000	$ 228
Selected States	17,780,000	$ 2,205,380,000	$ 2,767,170,000	$ 4,972,550,000	$ 280
North Carolina 2024	**8,284,300**	**$ 2,124,312,000**		**$ 2,124,312,000**	**$ 256**

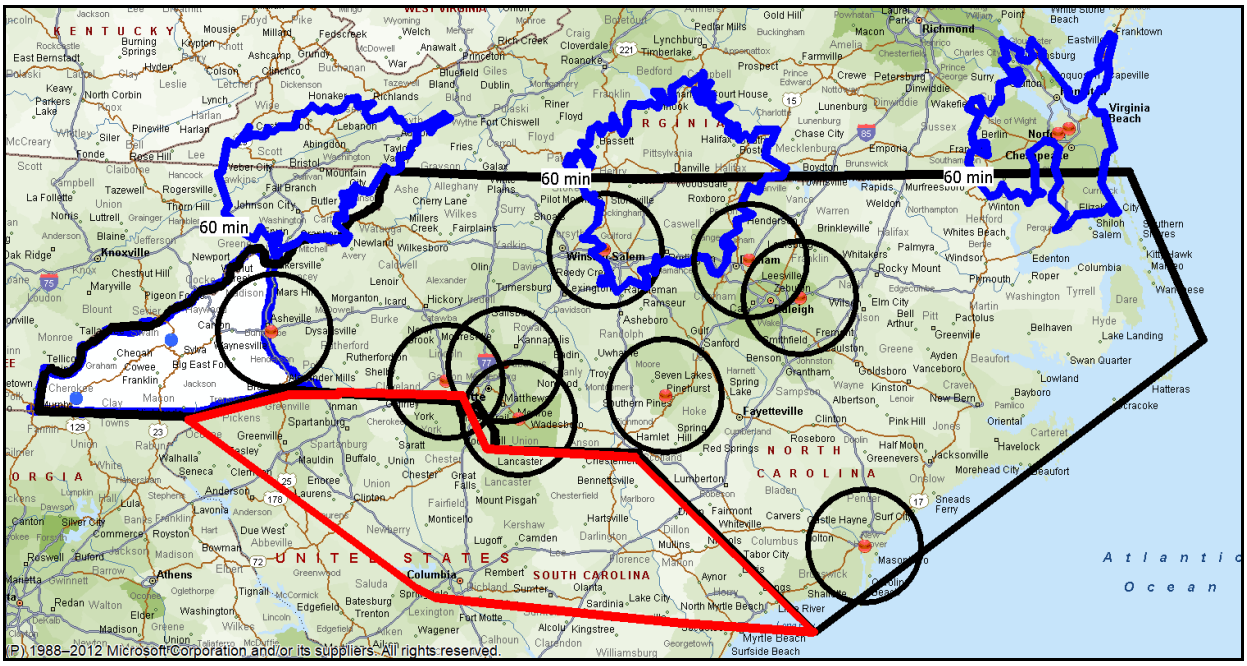
Source: US Census Bureau, State Gaming Authorities, Spectrum Gaming Group

Out-of-State Visitation to North Carolina Casinos

While each of the states bordering North Carolina has some form of gaming legislation under consideration, Virginia is moving most rapidly. In Virginia there are proposals to develop

casinos in Bristol, Danville, Norfolk, Portsmouth and Richmond. If these prospective casinos become operational, it is unlikely that there would be significant Virginia visitation to North Carolina casinos from areas not included in the MSAs that straddle state lines. The 60-minute drive times from these potential sites are indicated in blue in Figure 30 below.

Figure 30: Map of 60-minute-drive reach for proposed Virginia casinos and potential South Carolina visitation



Source: Microsoft Map Point, Spectrum Gaming

None of the nine assumed casinos were sited in the northeast corner of the state because the Commonwealth of Virginia is likely to authorize one, and perhaps two, casinos in the Virginia Beach–Norfolk–Newport News, VA–NC MSA (i.e., Norfolk and Portsmouth). The proposed Danville casino would draw patrons from North Carolina. It is unlikely that residents of the Winston-Salem or Durham areas would travel greater distances to visit a casino in Virginia if one were available closer to home. If North Carolina were to develop casinos in the metro areas identified in Figure 28, the proposed Bristol casino would have little impact on the North Carolina casinos due to the proximity of other gaming options.

For many out-of-state patrons, including those in Atlanta and Athens, GA, the Harrah's Cherokee casinos would remain their closest option, whereas patrons in South Carolina would have a choice regarding casino proximity. The area in red in the map above includes the portion of South Carolina from which North Carolina commercial casinos can reasonably expect to draw patrons. Three South Carolina counties – Chester, Lancaster and York – are included in the Charlotte MSA. Revenue from these counties is included in Spectrum's estimate for gaming revenue in the MSA. To avoid double counting, these areas have been removed from the out-of-state estimate.

Given the distances to a casino and the relative unfamiliarity with casino gaming in South Carolina, we have reduced the gaming spend as a percent of GDP to 0.25 percent. If North Carolina commercial casinos were to capture half of this potential, with the other half either being met by the Harrah's Cherokee casinos or other gaming, or not being realized, North Carolina could see an estimated increase of nearly $153 million in additional annual casino revenue. This out-of-state revenue has the potential to add nearly 8 percent to the market.

Figure 31: North Carolina casino gross gaming revenue potential from South Carolina market

South Carolina County	GDP est. 2024	Annual Est Potential
Cherokee	2,201,380,000	5,500,000
Chesterfield	1,644,380,000	4,110,000
Clarendon	630,000,000	1,570,000
Darlington	2,597,620,000	6,490,000
Dillon	868,880,000	2,170,000
Fairfield	1,397,310,000	3,490,000
Florence	7,711,090,000	19,280,000
Greenville	31,369,550,000	78,420,000
Horry	12,806,140,000	32,020,000
Kershaw	2,084,410,000	5,210,000
Laurens	4,540,110,000	11,350,000
Lee	383,000,000	960,000
Marion	601,800,000	1,500,000
Marlboro	822,620,000	2,060,000
Newberry	1,544,800,000	3,860,000
Pickens	3,899,410,000	9,750,000
Richland	26,662,220,000	66,660,000
Spartanburg	15,406,960,000	38,520,000
Sumter	4,312,400,000	10,780,000
Union	769,730,000	1,920,000
Total Potential		**305,620,000**
NC Capture	**50%**	**152,810,000**

Source: US Bureau of Economic Analysis, Spectrum Gaming Group

Casino Siting and Sizing

Having developed estimates for casino revenue across North Carolina, the next step is to develop a means to establish where casinos should be located, as well as the number and sizing of the projects appropriate for each market area. Again, other states and metro areas with casinos and distributed games help to inform our analysis.

"Gaming intensity" is a term used to describe the amount of gaming per person in a particular state or MSA. A standard benchmark for gaming intensity is the ratio of slot machines or gaming position to the adult population. By excluding casino-centric cities such as Las Vegas, Reno and Atlantic City, and focusing on states where gaming has been developed as an economic development tool, we can develop a gauge of the level of gaming intensity for non-gaming-

centric economies. Figure 32 presents the gaming intensity for several markets across the country.

Figure 32: Slot machines per adult, selected MSAs, 2019

Geography	Estimated Adults 21 +	Estimated Slot Machines	Est. Video Game Terminals	Adults per Machine
Boston Metro Area	3,560,000	4,300		828
Chicago Metro Area	6,930,000	11,710	12,000	292
Cincinnati Metro Area	1,790,000	6,131		292
Cleveland Metro Area	2,020,000	6,367		317
Detroit Metro Area	3,160,000	11,400		277
Kansas City Metro Area	1,560,000	7,592		205
Philadelphia Metro Area	4,450,000	8,070		551
Pittsburgh Metro Area	1,700,000	5,700		298
St. Louis Metro Area	2,050,000	9,429	2,200	176
Washington DC Metro Area	4,560,000	7,100		642
Quad Cities (IL, IA) MSA	278,000	2,730	615	83
Peoria MSA	270,000	872	890	153
Columbus, OH MSA	1,480,000	4,380		338
MSA Adults per Position	**33,808,000**	**85,781**	**15,705**	**333**
North Carolina	**7,580,000**	**22,754**	**-**	**333**

Sources: State gaming commissions, Spectrumetrix, Spectrum Gaming Group

Data on gaming intensity from other jurisdictions provides guidance on the gaming intensity appropriate for North Carolina. Based on the estimated revenues by MSA and the level of gaming intensity, location sizes and number of casinos can be created for each MSA, and the balance of the state. The gaming intensity ranges from 828 adults per slot in Boston to 83 in the Quad Cities, with an average of 333 across the spectrum. Using these data and the estimates of gaming revenue based on a percentage of GDP in each MSA it is possible to develop recommendations on the sizing and location of the potential casinos in North Carolina.

Spectrum determined that North Carolina could support up to nine casinos. A casino for Moore County, home of Pinehurst, is included in our total in an effort to maintain Moore County as a premier golf destination. Other golf resort destinations including The Greenbrier in West Virginia, French Lick Resort in Indiana, and Nemacolin Woodlands Resort in Pennsylvania have added casinos to diversify their resorts. Many casino operations offer golf as an amenity. In this case, as in the cases cited above, the casino would serve as an amenity to the Pinehurst golf destination.

Figure 33 below presents the estimated revenues, number of casinos, and MSAs in which North Carolina casinos could be located. This incorporates the potential for casinos located in metro areas to draw some of the potential gaming revenue from rural areas without casinos.

Much of the potential revenue from rural areas would remain unrealized in this scenario, as visiting a casino would require driving a substantial distance.

Figure 33: Potential North Carolina casino locations and gross gaming revenue estimates

Geography	Estimated Slot Revenue	Estimated Table Revenue	Estimated Revenue	Casinos	Slots	Tables
Charlotte MSA	$ 780,900,000	$ 195,228,000	$ 976,128,000	3	8,558	297
Raleigh Durham MSA	$ 568,800,000	$ 142,200,000	$ 711,000,000	2	6,233	216
Asheville MSA	$ 90,552,000	$ 22,632,000	$ 113,184,000	1	992	34
Wilmington MSA	$ 64,392,000	$ 16,092,000	$ 80,484,000	1	706	24
Winston Salem MSA	$ 133,488,000	$ 33,372,000	$ 166,860,000	1	1,463	51
Pinehurst (Moore Co.)	$ 61,320,000	$ 15,336,000	$ 76,656,000	1	700	25
TOTAL	**$ 1,699,452,000**	**$ 424,860,000**	**$ 2,124,312,000**	**9**	**18,652**	**648**

Source: US Bureau of Economic Analysis, Spectrum Gaming Group

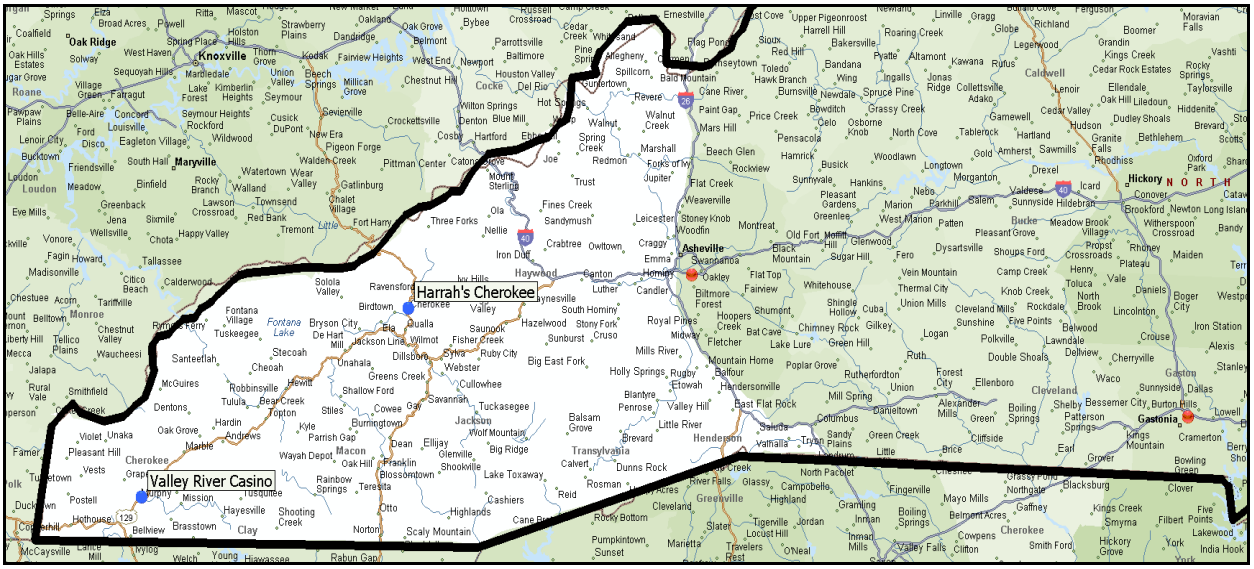
We believe that the potential in-state, baseline casino GGR for North Carolina $2.1 billion at full development and after the market reaches maturity.

Spectrum estimates that construction of the nine casinos, including integrated hotels at eight of them, would cost $1.82 billion.

Impact of Commercial Casinos on Cherokee Casinos

As noted in Chapter II.B above, the Eastern Band of Cherokee Indians own two Harrah's-brand casinos in the far west portion of the state that are operated by Caesars Entertainment. North Carolina signed a gaming compact with the EBCI permitting the EBCI exclusive rights to operate table games in a defined area of the state in exchange for exclusivity payments of up to 8 percent on the casino winnings from table games. The exclusivity area for Class III gaming roughly covers the area west of Interstate 26. The casinos and the exclusivity zone are indicated on the map in Figure 34 below. As the map shows, the EBCI casinos are not located near a major North Carolina city.

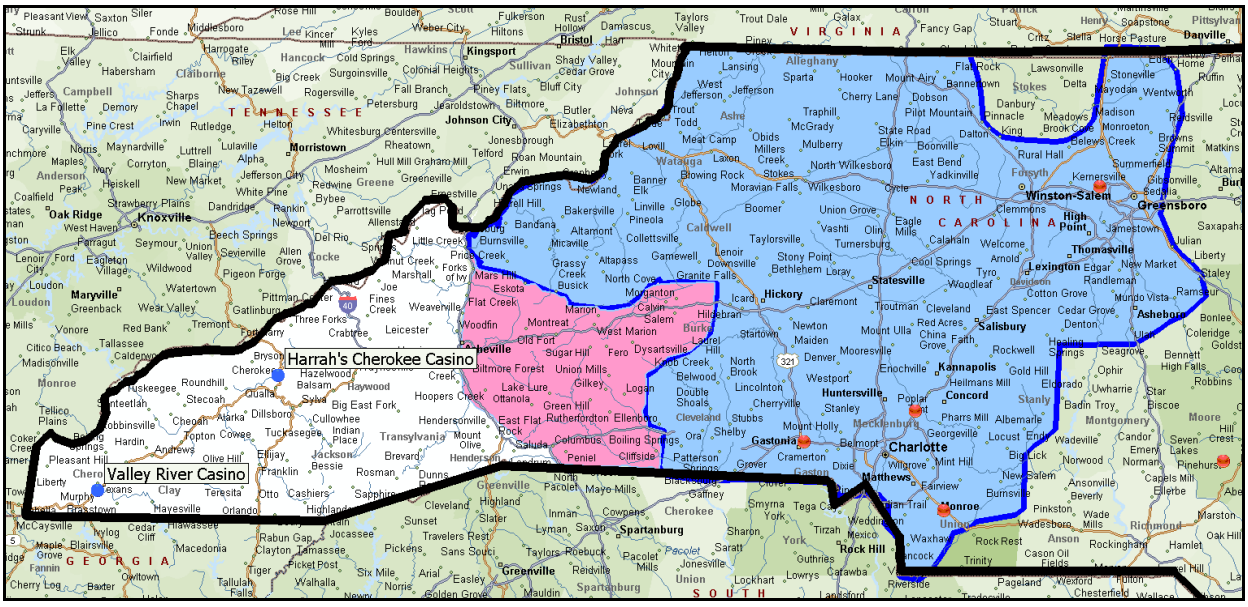
Figure 34: Map of Cherokee casinos and EBCI exclusivity zone



Source: Microsoft MapPoint, Spectrum Gaming Group

The pink shading on the map in Figure 35 below indicates the area outside the exclusivity zone that is within a two-hour drive of the flagship Harrah's Cherokee Resort Casino. The blue shaded area indicates the region between a two-hour and four-hour drive from the Harrah's Cherokee casino.

Figure 35: Map of Cherokee exclusivity zone and potential commercial casino cannibalization



Source: Microsoft MapPoint, Spectrum Gaming Group

Spectrum understands that the vast majority of the patronage to the Cherokee casinos comes from out of state. For many out-of-state patrons including those in Atlanta and Athens, GA, the Cherokee casinos would remain their closest option. For most North Carolina residents, the new commercial casinos would be closer.

Nationwide, 33 percent of US adults gamble at a casino at least once per year. This "propensity rate" varies greatly across the nation, and proximity to casinos increases the likelihood of visitation. Additionally, the frequency of visit is related to the proximity of casinos. The closer one lives to a casino, the more likely one is to visit and visit often. In areas within a two-hour drive it is common to see regular visitors make one trip a month to the casino. Nationwide, the average spend per trip to a casino is approximately $100. This average needs to be adjusted for the relative wealth of the area being studied.

After adjusting for income, a lower propensity to gamble, travel time, and income, Spectrum estimates that the Harrah's Cherokee casinos generate $367.5 million GGR from North Carolina residents, of which $244.3 million would be captured by the potential new, in-state commercial casinos.

Figure 36: Estimated North Carolina commercial casino impact on Cherokee casinos

Drive Time from Harrah's Cherokee Casino Resort	Estimated Adults	Estimated Gamers	Estimated Trips	Spend per Trip	Est Cherokee NC Revenue	Est Commercial Cannibalization	EBCI Retained
Within Two Hours	620,000	160,000	1,550,000	$ 73.00	$ 113,150,000	$ 65,130,000	$ 48,020,000
Two to Four Hours	3,140,000	630,000	3,140,000	$ 81.00	$ 254,340,000	$ 179,160,000	$ 75,180,000
Est. Four Hour Impact	**3,760,000**	**790,000**	**4,690,000**		**$ 367,490,000**	**$ 244,290,000**	**$ 123,200,000**

Source: Spectrum Gaming Group

Estimated North Carolina Casino Gross Gaming Revenue, Fiscal Receipts

The in-state estimated casino revenue, as shown in Figure 28, includes a portion of casino revenue currently being drawn to the Harrah's Cherokee properties in western North Carolina. It is anticipated that the addition of casino gaming to other portions of the state would cause much of that revenue to shift to the more convenient commercial casinos. As shown above, we expect South Carolinians would cross the border to gamble in the prospective casinos in North Carolina. The table below presents the estimated in-state casino revenue at Year 3, the estimated revenue retained by the EBCI (shown as a loss), and the estimated GGR from out-of-state patrons.

Figure 37: Total estimated North Carolina commercial casino gross gaming revenue, Year 3

Geography	Estimated Slot Revenue	Estimated Table Revenue	Estimated Revenue	No. Casinos	No. Slots	No. Tables
Charlotte MSA	$ 780,900,000	$ 195,228,000	$ 976,128,000	3	8,558	297
Raleigh Durham MSA	$ 568,800,000	$ 142,200,000	$ 711,000,000	2	6,233	216
Asheville MSA	$ 90,552,000	$ 22,632,000	$ 113,184,000	1	992	34
Wilmington MSA	$ 64,392,000	$ 16,092,000	$ 80,484,000	1	706	24
Winston Salem MSA	$ 133,488,000	$ 33,372,000	$ 166,860,000	1	1,463	51
Pinehurst (Moore Co.)	$ 61,320,000	$ 15,336,000	$ 76,656,000	1	700	25
TOTAL In State GGR	**$ 1,699,452,000**	**$ 424,860,000**	**$ 2,124,312,000**	**9**	**18,652**	**648**
Less in-state to Cherokee	$ (98,560,000)	$ (24,640,000)	$ (123,200,000)			
Out-of-State GGR	$ 122,248,000	$ 30,562,000	$ 152,810,000			
Total Estimated GGR	**$ 1,723,140,000**	**$ 430,782,000**	**$ 2,153,922,000**			

Source: Spectrum Gaming Group

Casinos generally take about three years of operation to ramp up to what would be considered the "first mature year," and this is what is shown in Figure 37 above. Figure 38 below presents how the market may develop based on a three-year growth into maturity, and then, for the sake of being conservative, we assume GGR will grow at the rate of inflation. Factors including development timelines, casino locations, and the speed of licensing can have large impacts on any projections.

Figure 38: Forecasted North Carolina casino gross gaming revenue, years 1-5

	Year 1	Year 2	Year 3	Year 4	Year 5
Est. Casino Revenue (GGR)	$ 1,615,440,000	$ 1,830,830,000	$ 2,153,922,000	$ 2,207,770,000	$ 2,240,080,000

Source: Spectrum Gaming Group

Tax policy is directly related to the legislative intent to authorizing gaming and is dependent on the intent of the enabling legislation. If the intent is to use casino gaming as an economic development tool, a lower progressive tax rate can serve to help generate greater capital investment that would, in turn, generate additional benefits in terms of employment as well as greater market penetration. If the intent is to generate as much tax revenue as possible for the state, a high flat tax rate would appear to increase state revenue, but it would be less likely to provide an incentive for operators to invest large amounts of capital in casino projects. The tax levels discussed below are not recommendations; they serve as examples of potential tax revenues based on established or proposed tax rates for casino gaming.

As casino gaming has spread across the nation, a variety of gaming-tax structures have emerged. For the industry to be successful, it is important to get the tax policies correct at the beginning. If the tax rate is too low, the State of North Carolina may not achieve its revenue goals; if the tax rate is too high, developers may not achieve profit levels that justify developing an attractive gaming facility, thus limiting the revenue and tax potential.

Some states employ a uniform flat tax rate, while others use a graduated tax in which the rate increases as revenue increases. Deciding what to tax is as important as setting tax rates. Some jurisdictions use "gross gaming receipts" as a basis while others use "adjusted gross receipts," which factors out the promotional play (i.e., "free play") offered to patrons. In some cases, there are provisions for a fixed rate of tax subject to an annual minimum. It is important to have a tax regime that takes into account the tax policies of adjacent jurisdictions.

For North Carolina to develop a competitive casino industry, it would be important to align tax policy with the likely incoming casinos in Virginia, as well as being mindful of the revenue-sharing levels in the gaming compact between the Eastern Band of Cherokee Indians and the State of North Carolina. The EBCI gaming compact calls for a revenue sharing with the state of up to 8 percent of table game revenue, with no revenue sharing on slot revenue. This effective gaming-tax level should be considered when developing a policy that will encourage development of a vibrant industry.

Virginia in March 2020 passed House Bill 4, permitting the introduction of casinos in five locations, subject to local approval. The bill proposes a graduated revenue tax. Spectrum modeled potential Virginia tax revenues, which would tax gross gaming revenue at the rates outlined in Figure 39 below.[73] If a casino in Virginia were to pay a significantly lower rate than in North Carolina, the Virginia casino could afford to invest more in the physical plant and spend more on marketing, providing incentive for players to cross the border to play, resulting in a loss of revenue and employment in North Carolina.

Figure 39: Virginia casino GGR tax rates, per House Bill 4

	From	To	Tax Rate
GGR	$ -	$ 200,000,000	18%
GGR	$ 200,000,001	$ 400,000,000	23%
GGR	$ 400,000,001		30%

Source: Virginia Legislative Information System

Using Spectrum's nine-casino development structure outlined in Figure 37 above and the tax rates proposed in Virginia, it is possible to estimate the potential casino tax revenue for the State of North Carolina, as shown in Figure 40 below. We assume that the proposed casino locations in the southern portion of North Carolina would see the most out-of-state visitation. Based on this, we developed an estimate of the potential State gaming tax receipts. Using this methodology, Spectrum estimates casinos at maturity (Year 3) could generate annual gaming taxes of $422.6 million for the State of North Carolina.

Figure 40: North Carolina estimated casino gross gaming revenue State tax receipts based on Virginia rates, Year 3

Geography	Estimated Revenue	Casinos	Revenue per Casino	Casino Tax	Effective Rate
Charlotte MSA	$ 986,878,000	3	$ 328,960,000	$ 196,980,000	20.0%
Raleigh Durham MSA	$ 711,000,000	2	$ 355,500,000	$ 143,530,000	20.2%
Asheville MSA	$ 113,184,000	1	$ 113,184,000	$ 20,370,000	18.0%
Wilmington MSA	$ 91,000,000	1	$ 91,000,000	$ 16,380,000	18.0%
Winston Salem MSA	$ 166,860,000	1	$ 166,860,000	$ 30,030,000	18.0%
Pinehurst (Moore Co.)	$ 85,000,000	1	$ 85,000,000	$ 15,300,000	18.0%
All Nine Casinos	**$ 2,153,922,000**	**9**		**$ 422,590,000**	**19.6%**

Sources: Virginia Legislative Information System, Spectrum Gaming Group

We also estimated the state gaming-tax receipts based on a flat tax that is in line with other comparable states:

- Louisiana: 21.5 percent
- Iowa: 20 percent.

[73] Virginia Legislative Information System, House Bill 4: https://lis.virginia.gov/cgi-bin/legp604.exe?201+sum+HB4

- Missouri: 21 percent, but with a per-admission tax of $2 per head brings the effective rate to 25.5 percent.[74]

A 22 percent tax rate would be in the range of the states listed above and also be competitive with the possible effective rate in Virginia. Under this rate, the potential casinos in North Carolina could generate $473.9 million in tax revenue for the State of North Carolina, based on the performance in Figure 37. The following table provides the State gaming-tax receipts (along with the GGR forecast from Figure 38), assuming a flat tax rate of 22 percent.

Figure 41: Forecasted North Carolina casino gross gaming revenue and State gaming tax receipts, years 1-5

	Year 1	Year 2	Year 3	Year 4	Year 5
Est. Casino Revenue (GGR)	$ 1,615,440,000	$ 1,830,830,000	$ 2,153,922,000	$ 2,207,770,000	$ 2,240,080,000
Flat tax as 22%	$ 355,400,000	$ 402,780,000	$ 473,860,000	$ 485,710,000	$ 492,820,000

Source: Spectrum Gaming Group

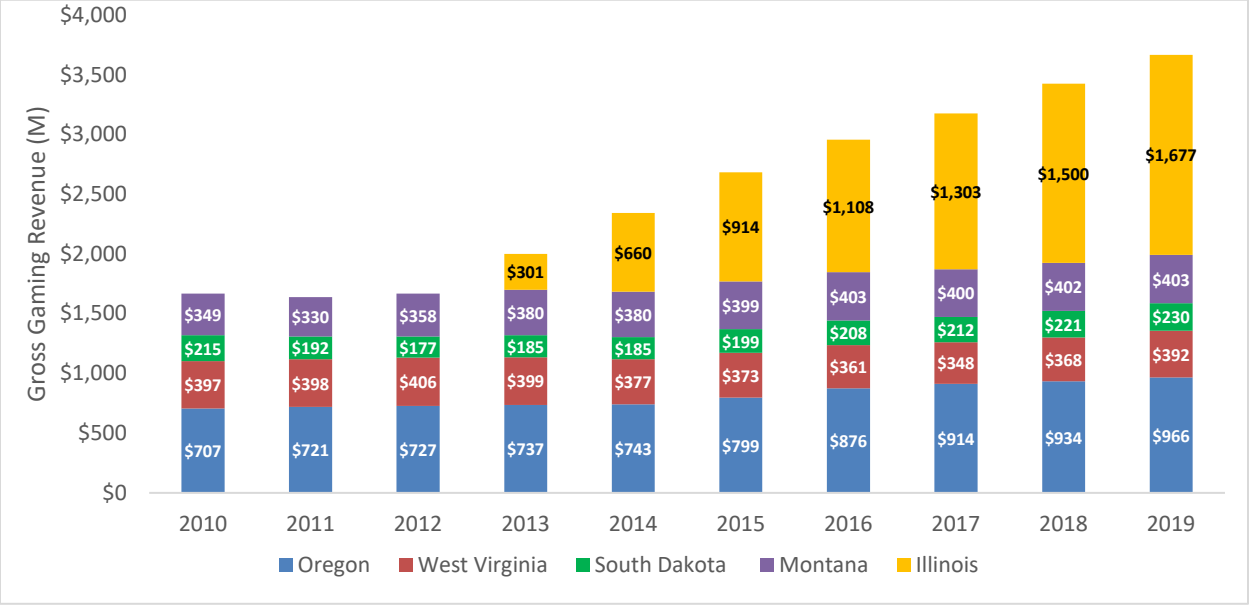
B. Distributed Gaming

Distributed gaming – also known as "retail gaming," "route operations" or just "video gaming" – refers to the operation of a limited number (typically 5 to 10) of video gaming terminals ("VGTs") or video lottery terminals ("VLTs") at taverns and restaurants, fraternal organizations, and other authorized locations. These machines meet the demand for gaming in areas where there may not be enough volume to develop a full casino while at the same time eliminating unregulated, or gray-market, machines (see Chapter I.B of this report).

Distributed gaming is operational in seven states, although the results are not reported in Nevada. The following charts show the GGR and number of gaming devices for five reporting states. Spectrum excluded Louisiana because its distributed gaming program is concentrated in truckstops, which can have up to 50 machines, and off-track betting locations, which can have up to 100 machines.

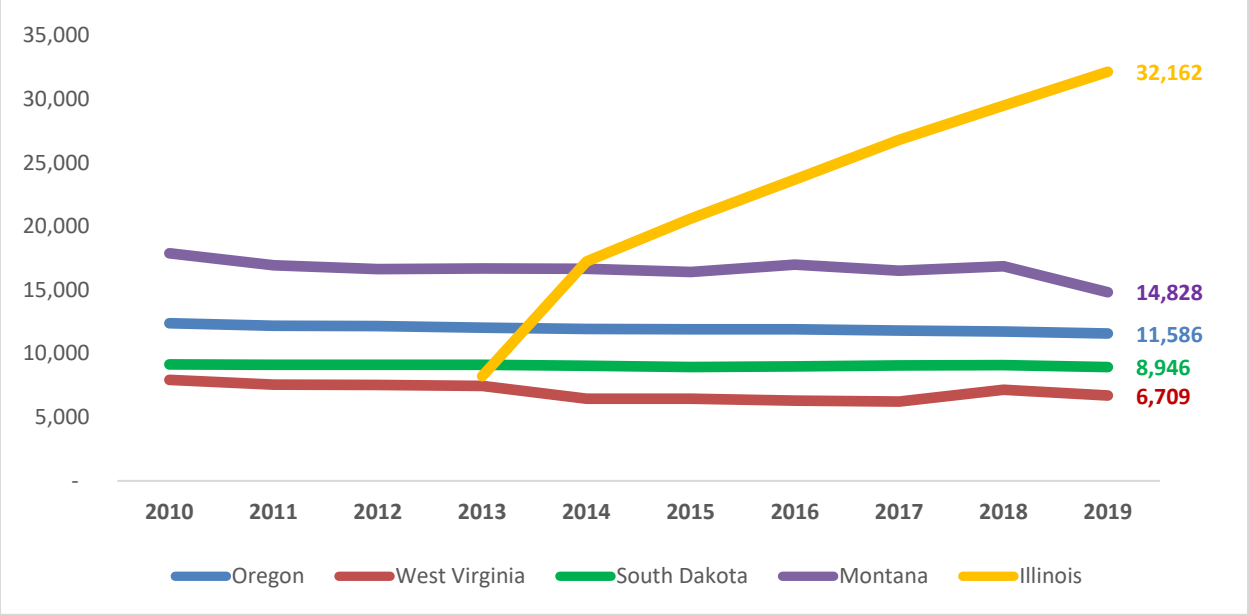
[74] Missouri Gaming Commission Annual Report, FY 2019
https://www.mgc.dps.mo.gov/annual_reports/AR_CurrentYear/00_Full%20Report.pdf

Figure 42: Distributed gaming gross revenue by state, 2010 – 2019



Source: State gaming/lottery commissions, Spectrum Gaming Group

Figure 43: Distributed gaming number of machines by state, 2010 – 2019



Source: State gaming/lottery commissions, Spectrum Gaming Group

Of note:

- Five of the seven states with distributed gaming also have state-regulated (i.e., commercial) casinos: Illinois, Louisiana, Nevada, South Dakota and West Virginia.
- Montana and Oregon have tribal casinos, and Montana also has nearly 300 cardrooms.

- The lottery operates the distributed gaming in three states: Oregon, South Dakota and West Virginia.

In states without commercial casinos, distributed gaming could offer the opportunity to reach all markets big and small through optimal placement of the machines – and to do so at little cost as compared to introducing casinos. No states offer only distributed gaming.

States have authorized distributed gaming with two primary goals in mind:

- Eliminating unregulated gaming machines, and
- Generating tax revenue for state and local governments.

Illinois has become the model for distributed gaming. It has, by all accounts, dramatically reduced the unregulated games statewide while raising substantial fiscal receipts. Illinois VGTs, which launched in late 2012, now generate more GGR than the state's 10 casinos. In the first six years, Illinois imposed a 30 percent tax on VGT revenue, with the state receiving 25 percent and the host municipality receiving 5 percent; the tax is now 33 percent, with a 28/5 split between the State and the host municipality.

Figure 44: Illinois distributed gaming revenue and fiscal receipts, 2010 – 2019

Year	VGT GGR	State Tax	Local Tax
2014	$659,511,405	$164,879,180	$32,975,765
2015	$913,604,038	$228,402,370	$45,680,387
2016	$1,108,145,508	$277,036,803	$55,407,261
2017	$1,302,765,498	$325,692,655	$65,138,419
2018	$1,499,992,701	$375,001,592	$75,000,198
2019	$1,676,670,362	$444,384,459	$83,833,499
TOTAL	**$7,160,689,512**	**$1,815,397,061**	**$358,035,528**

Source: Illinois Gaming Board

Forecasting North Carolina Distributed Gaming Revenue

To forecast the potential distributed gaming revenues in North Carolina we look to the performance of distributed gaming in other states. Such states regularly report performance data as a means of transparency in their efforts to ensure the public that the gambling revenues are being properly accounted for and the games are fair.

Three critical assumptions are central to developing our distributed gaming GGR estimates:

1. The unregulated gaming market in North Carolina will be eliminated. As discussed in Chapter I.B above, this gaming sector is substantial and, if allowed to continue to thrive, would significantly reduce our distributed GGR estimates. Only by assuming that this sector will be eliminated can Spectrum demonstrate the full

potential of distributed gaming to the State of North Carolina. As discussed above, this activity can be eliminated if the State has the will to do so.

2. Virginia will have casinos before North Carolina, and four of them will be located near the North Carolina border. The Commonwealth of Virginia is moving swiftly to enact casino gambling.

3. There is no change to the existing Harrah's Cherokee operations in western North Carolina.

To begin developing a distributed gaming model for North Carolina, it is instructive to examine the gaming intensity of the combined states and the win per adult in these jurisdictions. As distributed-gaming locations are typically small and offer little variety of games and little to no amenities beyond the core purpose of the host establishment – i.e., a bar or restaurant – players typically spend less time gambling.

In many cases, gambling may not have been the primary purpose for the visit. As a result, it can be expected that the win per unit will be lower than at a casino.

In some jurisdictions, small purpose-built distributed gaming operations have been established. These operations typically have fewer than 10 machines. In many cases the "dining options" are limited to convenience food items such as hot dogs, pizza slices and chips. These operations cater to the convenience gaming market, with patrons visiting often but spending little time and money during each trip. However, in markets where there are no reasonably close casinos – as would be the case for most of North Carolina – the daily win per unit may be higher than in states with both distributed and casino gaming.

Data on casino gaming from Ohio MSAs where there are no distributed machines indicated a casino win of approximately 0.46 percent of GDP. In our estimate for North Carolina we used a slightly lower 0.40 percent as an estimate of casino gaming as a percent of GDP. Distributed gaming does not require patrons to make a dedicated trip to a casino to play. As a consequence, gaming spend as a percent of GDP will likely be higher, due to convenience. Using 0.45 percent of GDP for distributed gaming in North Carolina keeps the overall gaming spend as a percentage of GDP in line with that seen in other states that offer casinos and distributed games. As noted above there are no states that offer distributed gaming exclusively.

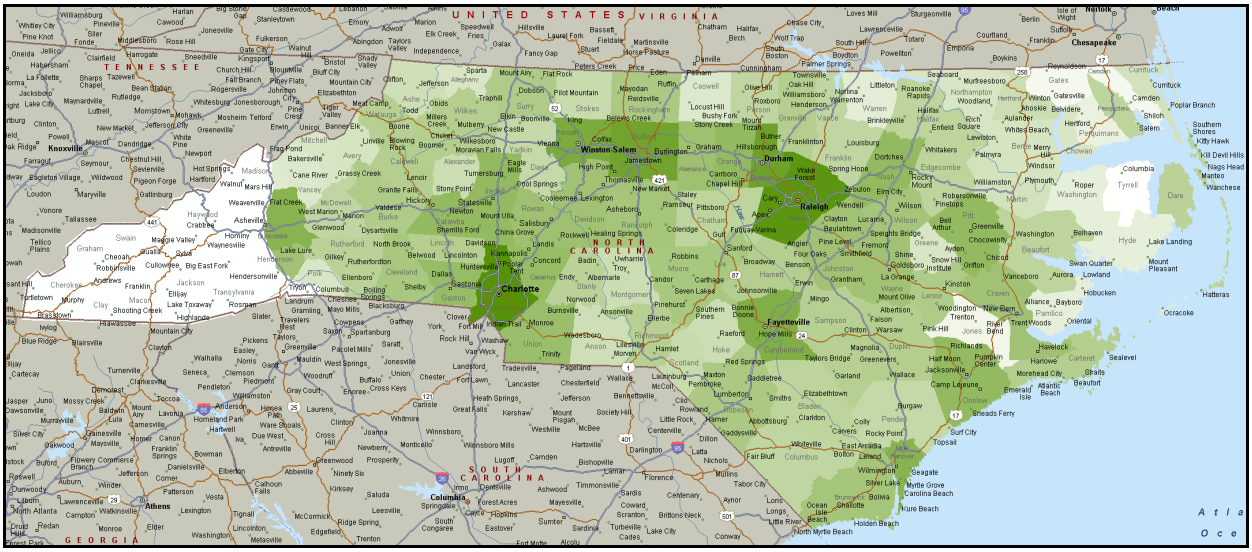
Estimated North Carolina Distributed Gaming Gross Gaming Revenue, Fiscal Receipts

The average win per unit per day for distributed games in reporting states with casinos is $135. This point can be used to develop a revenue estimate for a distributed gaming model for North Carolina. Because North Carolina would not be offering casinos, we assumed a win per unit of $200 – approximately 150 percent of the win per unit in states where both distributed games and casinos are offered. This win per unit has been used to drive the estimated number of VGTs

needed to meet the estimated demand. The demand, or GGR has been estimated using 0.45 percent of GDP in each county.

The map below (Figure 45) displays the density of machines, and the following table (Figure 46) below presents the estimated revenues. In the map below, the green gradient illustrates the concentration of VGTs by county – darker green for more VGTs to pale green for fewer VGTs. As can be seen, the more populated counties with higher GDP levels also have more machines deployed.

Figure 45: Map of potential VGT distribution in North Carolina



Source: Microsoft Map Point, Spectrum Gaming Group

Of note is the assumption that no VGTs would be deployed in the EBCI exclusivity zone, which is the area west of Interstate 26 (shown in white in the map above).

Figure 46: Estimated North Carolina distributed gaming GGR by county, 2024

Location	VGTs in County	Annual Est. VGT Win	Location	VGTs in County	Annual Est. VGT Win
Statewide	**34,000**	**2,481,870,000**			
Alamance	378	27,590,000	Johnston	322	23,490,000
Alexander	59	4,320,000	Jones	12	900,000
Alleghany	31	2,250,000	Lee	226	16,520,000
Anson	52	3,830,000	Lenoir	182	13,280,000
Ashe	51	3,740,000	Lincoln	149	10,890,000
Avery	39	2,880,000	Macon		
Beaufort	103	7,520,000	Madison		
Bertie	41	2,970,000	Martin	43	3,150,000
Bladen	105	7,700,000	McDowell	92	6,710,000
Brunswick	257	18,770,000	Mecklenburg	6,878	502,110,000
Buncombe	415	30,330,000	Mitchell	33	2,390,000
Burke	182	13,280,000	Montgomery	61	4,460,000
Cabarrus	451	32,900,000	Moore	225	16,430,000
Caldwell	165	12,060,000	Nash	529	38,610,000
Camden	11	770,000	New Hanover	866	63,230,000
Carteret	147	10,760,000	Northampton	35	2,520,000
Caswell	30	2,210,000	Onslow	575	41,940,000
Catawba	582	42,480,000	Orange	541	39,470,000
Chatham	97	7,110,000	Pamlico	19	1,400,000
Cherokee			Pasquotank	100	7,290,000
Chowan	34	2,480,000	Pender	81	5,900,000
Clay			Perquimans	17	1,220,000
Cleveland	253	18,500,000	Person	92	6,710,000
Columbus	93	6,800,000	Pitt	548	40,010,000
Craven	307	22,410,000	Polk	32	2,340,000
Cumberland	1,146	83,660,000	Randolph	279	20,390,000
Currituck	44	3,240,000	Richmond	130	9,500,000
Dare	126	9,180,000	Robeson	217	15,840,000
Davidson	330	24,080,000	Rockingham	208	15,210,000
Davie	82	5,990,000	Rowan	340	24,840,000
Duplin	150	10,940,000	Rutherford	116	8,460,000
Durham	2,531	184,730,000	Sampson	145	10,580,000
Edgecombe	105	7,700,000	Scotland	69	5,040,000
Forsyth	1,525	111,290,000	Stanly	123	9,000,000
Franklin	90	6,570,000	Stokes	70	5,090,000
Gaston	480	35,010,000	Surry	173	12,600,000
Gates	11	770,000	Swain		
Graham			Transylvania		
Granville	148	10,800,000	Tyrrell	7	540,000
Greene	35	2,570,000	Union	438	31,950,000
Guilford	2,211	161,420,000	Vance	85	6,170,000
Halifax	99	7,200,000	Wake	4,952	361,530,000
Harnett	153	11,160,000	Warren	23	1,670,000
Haywood			Washington	18	1,310,000
Henderson	149	10,890,000	Watauga	136	9,900,000
Hertford	55	4,010,000	Wayne	332	24,260,000
Hoke	61	4,460,000	Wilkes	148	10,800,000
Hyde	18	1,310,000	Wilson	274	20,030,000
Iredell	521	38,030,000	Yadkin	74	5,400,000
Jackson			Yancey	29	2,120,000

Sources: Bureau of Economic Analysis, Spectrum Gaming

As has been seen in Illinois, the rollout of VGTs across the state takes years. Figure 47 below presents a possible rollout schedule for VGTs in North Carolina and the associated taxes. The rollout is more aggressive than in Illinois, but our forecast also assumes that distributed gaming would be the only form of State-authorized machine gaming.

Figure 47: Forecasted North Carolina distributed gaming gross gaming revenue, years 1 – 5

Year 1	Year 2	Year 3	Year 4	Year 5
8,700	18,200	28,300	31,200	34,000
$ 150	$ 160	$ 180	$ 190	$ 200
$ 476,325,000	$ 1,062,880,000	$ 1,859,310,000	$ 2,163,720,000	$ 2,481,870,000
$ 142,898,000	$ 318,864,000	$ 557,793,000	$ 649,116,000	$ 744,561,000

Source: Spectrum Gaming Group

Although distributed gaming could produce more gaming taxes than casinos, the State's policy goals in expanding gaming would be paramount in selecting which option to pursue. If the goal is higher taxes and to boost small businesses (i.e., the distributed gaming host establishments), distributed gaming may be the preferred option. If the goal is to generate jobs – construction and operations – and attract out-of-state visitation, casino gaming may be the preferred option.

However, we must issue a cautionary note: Casino gaming at a lower gaming tax rate can, under carefully identified circumstances, generate greater overall tax revenue if other forms of taxation, such as sales taxes and other fiscal streams are taken into consideration.

Distributed gaming may be implemented faster than casinos – because the host facilities (i.e., bars, restaurants, truckstops) are already in place vs. a two-year to three-year development period for casinos. Our estimate for distributed gaming uses 2024 as the forecast year for the sake of apples-to-apples comparison with our casino forecast above. It is worth noting that Illinois passed legislation approving distributed gaming in 2009, and the first machine was installed in 2012. There is a great deal of necessary preparation before launching distributed gaming, including the drafting of regulations, licensing suppliers and operators, and establishing the tax structure.

C. Internet Casino Gaming

In this section, we provide an overview of internet casino gaming – commonly called "igaming" – in the United States, intending to identify which states provide a basis for the revenue potential of igaming in North Carolina. We believe comparing North Carolina to US states provides a more realistic projection as opposed to the large European markets. While Europe has mature igaming markets, it lacks a comparable land-based regional casino industry. Due to the small size and scope of land-based gaming in Europe, igaming spend is less representative of what to expect in a US jurisdiction. We believe the best market for projecting igaming is New Jersey. New Jersey is by far the most mature state, offering the most diverse products with a favorable tax rate that has enabled significant growth. Following our overview of igaming in the US, we outline our forecast methodology and provide revenue estimates for North Carolina igaming.

US Igaming Landscape

Below we describe the igaming market in the five states that have legalized a form of igaming: Delaware, Nevada, New Jersey, Pennsylvania, and West Virginia. Delaware, Nevada and New Jersey were early adopters of igaming, launching their first online gambling sites in November 2013. In July 2019, Pennsylvania became the next state to launch legal online gambling sites. Michigan and West Virginia have authorized igaming but have yet to set dates to commence operations.

States implementing igaming are required to make regulatory decisions that include who is eligible for licensure, which games to allow, and whether license holders may operate multiple brands, or "skins." In all states except Nevada and Pennsylvania, igaming licensure is available only to brick-and-mortar casino operators. Below we illustrate a summary of the rules and tax rates for igaming in the US.

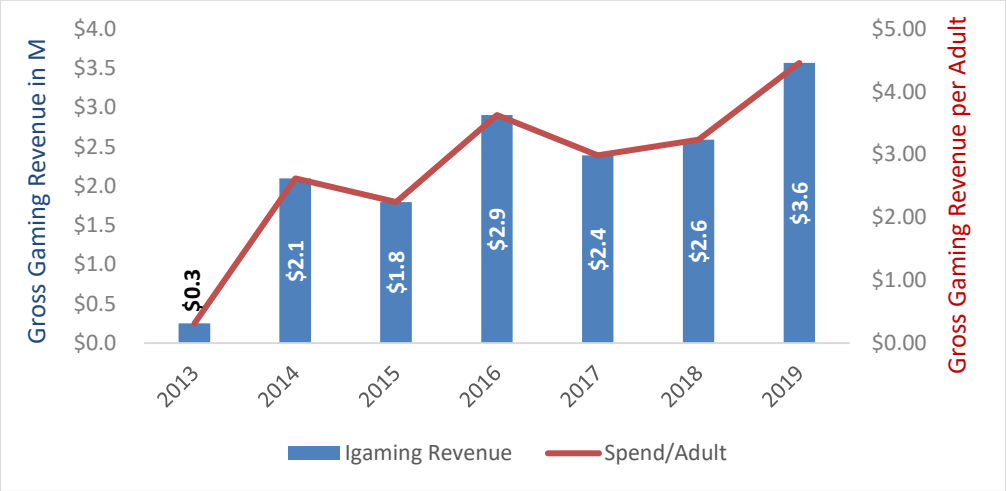
Figure 48: Overview of igaming states

State	Igaming Games Allowed	Tax Rate	Skins/License Holder
Delaware	Slots, Tables, Poker	Above $3.75M of GGR: 53.5% slots/34% tables	1
Nevada	Poker	6.75%	1
New Jersey	Slots, Tables, Poker	17.5%	5
Pennsylvania	Slots Tables	54%/16%	Unlimited
West Virginia	Poker	15%	TBD

Source: State gaming commissions

Delaware: Igaming in Delaware was legalized in 2012, and the first igaming sites launched in 2013. Since inception, Delaware has allowed online poker, slots, and table games through a single technology platform provider. Each of the state's three brick-and-mortar casinos has an igaming license. In 2015, Delaware signed a liquidity agreement with Nevada, allowing poker players from both states to play against each other. In 2018, New Jersey joined this agreement; however, only a single operator is licensed in all three states, so the addition of New Jersey is not expected to materially grow the US online poker market. Due to its small size (800,000 adults), Delaware generated only $3.6 million of igaming GGR in 2019, which is equivalent to $4.50 of spend per adult. Igaming revenue in Delaware and spend per adult is shown in Figure 49 below.

Figure 49: Delaware igaming gross gaming revenue and spend per adult, 2013 – 2019



Source: Delaware Lottery, Spectrum Gaming Group

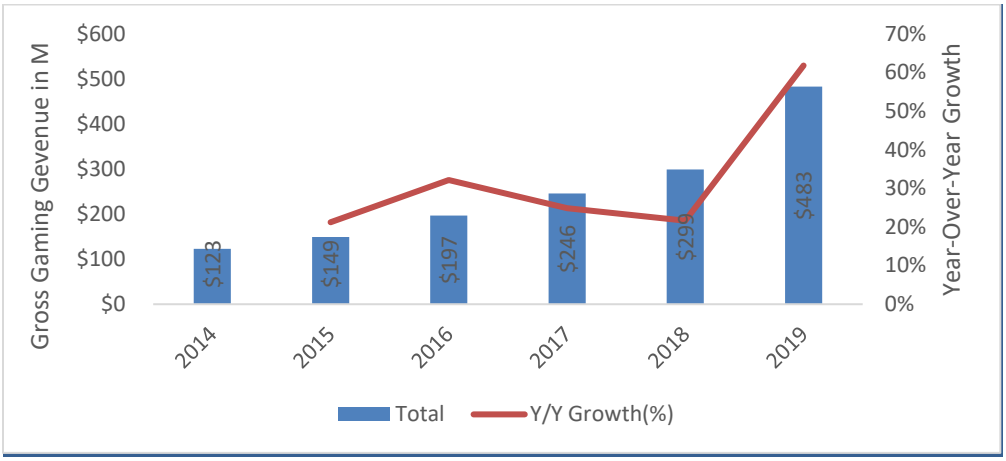
The igaming tax rate in Delaware is as follows: the first $3.75 million in GGR industrywide goes to the State, and marginal revenue is taxed at 43.5 percent for slots and 29.4 percent for tables. An additional 10 percent of slot revenue and 4.5 percent of table revenue goes to the horse racing industry. Because statewide GGR totals have yet to exceed the $3.75 million threshold, igaming GGR in Delaware has been effectively taxed at 100 percent. Under this tax scheme it is uneconomic for operators to materially invest in growing their igaming business. We expect Delaware to remain a tiny market.

Nevada: Online poker was legalized in February 2013, and the player pool was restricted to adults located within Nevada. In 2015, the state signed a liquidity agreement with Delaware, allowing poker players from both states to play against each other. Despite many companies applying for poker licenses, only three providers have ever offered licensed real-money online poker in Nevada. Due to the limited number of players, the market struggled to gain traction. Ultimate Poker, which opened to players in early 2013, shut down in November 2014. The other two – WSOP.com and Real Gaming Online Poker – opened in late 2013 and early 2014 respectively. The Nevada Gambling Control Board stopped publishing revenue reports due to the lower number of igaming participants. Online poker GGR is subject to the same 6.75 percent State tax imposed on land-based gaming revenue.

New Jersey: Igaming in New Jersey was legalized in February 2013, and the first igaming sites launched in November of that year. Each license holder is allowed five skins, or websites. Currently, there are seven land-based casinos that offer an igaming option and 24 total authorized sites. New Jersey offers slots, poker, and table games. Players are able to create and fund an account from anywhere; however, they must physically be inside New Jersey in order to play online. Igaming GGR is subject to a 15 percent state tax, and an additional 2.5 percent of GGR goes to the Casino Reinvestment Development Authority. By comparison, brick-and-mortar

GGR is subject to an 8 percent state tax and an additional 1.25 percent community investment alternative tax. New Jersey has been successful during the first five years of operation, growing an average of 32 percent per year, generating $483 million of GGR in 2019. The chart below illustrates the degree to which igaming has grown in New Jersey.

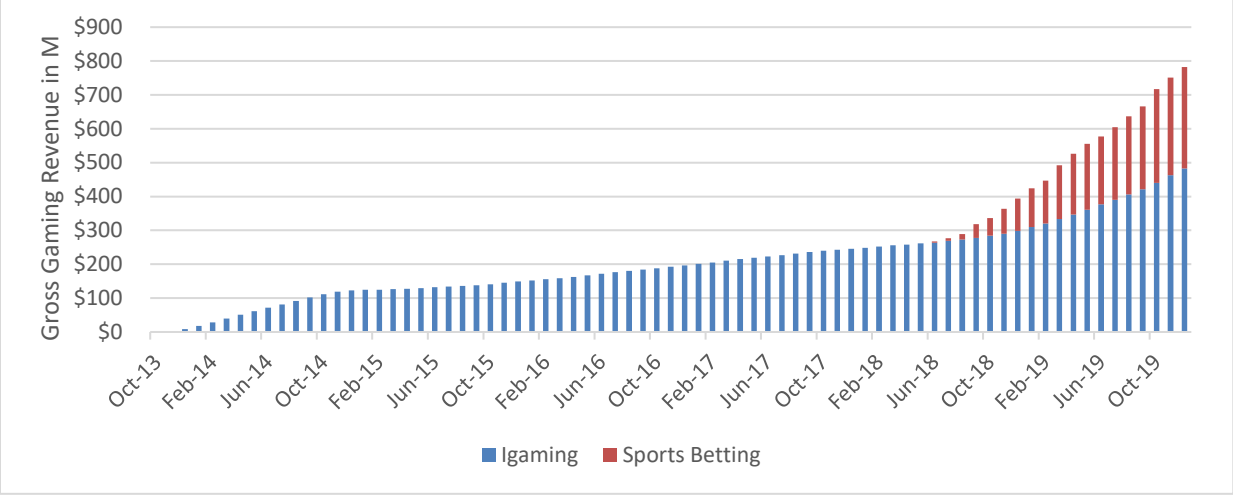
Figure 50: New Jersey igaming gross gaming revenue, 2014 – 2019



Source: New Jersey Division of Gaming Enforcement

In 2019, New Jersey igaming GGR received a significant boost, mainly due to the authorization of sports betting, growing 62 percent in 2019. We attribute this outsized growth to the significant marketing and promotional investment that sports betting operators have made to grow the market. This outsized level of spend, which is mostly focused on online sports betting (approximately 85 percent of sports betting handle is online), is having a substantial impact on player migration from sports betting to igaming, as both are digitally focused activities. To illustrate the uptick in igaming revenue upon the authorization of sports betting, we produced the below chart, which depicts how the businesses have grown on a rolling 12-months basis.

Figure 51: New Jersey igaming and sports betting gross gaming revenue, rolling LTM, 2014 - 2019



Source: New Jersey Division of Gaming Enforcement. LTM = last 12 months.

Pennsylvania: In October 2017, Pennsylvania legalized online versions of poker, casino games, daily fantasy sports, and sports betting. Players must be within Pennsylvania in order to make deposit and wagers. Igaming tax rates vary based on the revenue source: online table games and poker is taxed at 16 percent while online slot revenue is taxed at 54 percent. These are the same rates that apply to brick-and-mortar slot and table revenue.

West Virginia: West Virginia legalized igaming in March 2019 with passage of the West Virginia Lottery Interactive Wagering Act. The law allows each of the state's five land-based casinos to apply for a permit to offer online poker and casino games. Online casinos are not expected to launch in the state until 2020 at the earliest. The expected tax rate for igaming GGR is 15 percent. By comparison, revenue from video lottery terminals in the state are taxed at 49 percent and table revenue is taxed at 35 percent.

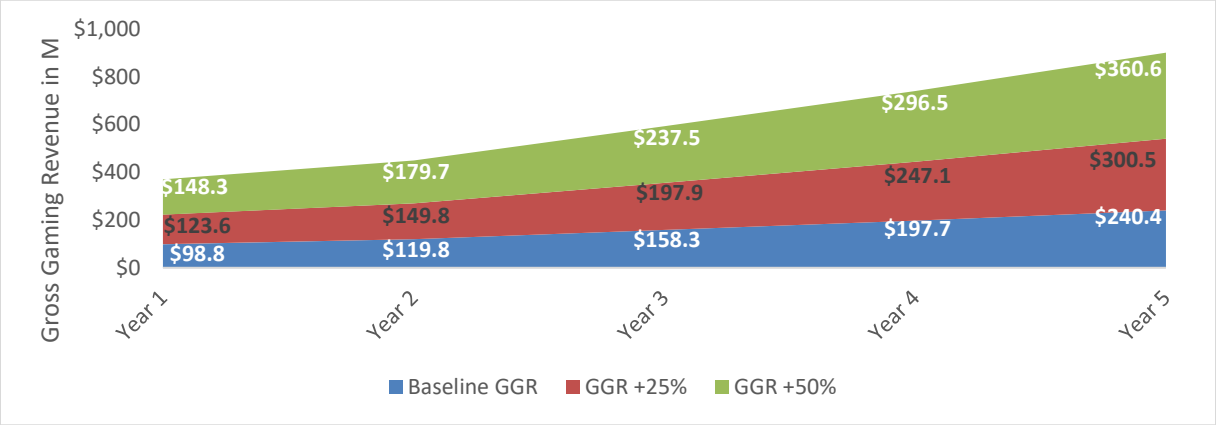
Estimated North Carolina Igaming Gross Gaming Revenue, Fiscal Receipts

Because New Jersey is the only mature US market for internet casino gaming, we used New Jersey results to benchmark revenue potential in North Carolina. Other US states are either too new to garner significant insight (Pennsylvania, West Virginia) or have a restricted product offering that has hindered market growth (Nevada and Delaware). We assume that North Carolina would adopt similar regulations as in New Jersey including a tax rate under 20 percent (we assume 15 percent) and multiple skins with a variety of game offerings. Our assumptions do not include authorization of sports betting and therefore we did not include New Jersey's substantial boost in revenue for 2019 when forecasting North Carolina.

Next, we adjusted the population and income demographics for New Jersey ($76,475 household income, 7 million adults over 21) for the demographics in North Carolina ($53,855 household income and 8 million adults over 21).

The final adjustment accounted for the absence of other forms of gaming in North Carolina relative to New Jersey, which has a $3 billion land-based casino industry in Atlantic City. To account for the lack of in-state casino competition in North Carolina, we increased our baseline estimates benchmarked off New Jersey, +25 percent and +50 percent, yielding GGR ranging from $300 million to $361 million in Year 5. The results of this analysis are illustrated in Figure 52 below.

Figure 52: Forecasted North Carolina igaming gross gaming revenue, years 1-5



Source: Spectrum Gaming Group

It is important to note that, while our forecasts are based on a mature New Jersey igaming market, this activity is in its infancy in the US. Additionally, online poker does not have sufficient liquidity in the form of volume of players required to produce a consistent schedule of high-stakes tournaments. These tournaments are critical in attracting players and creating the market. GGR from poker in NJ is only 4 percent of total igaming GGR in New Jersey. As more states authorize igaming, we expect the poker market to benefit as states sign liquidity agreements to augment the size of this segment.

As a check on our projections, we compared online spend as a percentage of state GDP in New Jersey and estimated what the expected spend would be in North Carolina.

Figure 53: Igaming spend as percentage of state gross domestic product

State	State GDP (M)	GGR/GDP (%)	Igaming GGR (M)
New Jersey	$624,851	0.05%	$299* (actual)
North Carolina	$565,800	0.05%	$270 (projected)

Source: US Department of Labor, NJ Division of Gaming Enforcement, Spectrum Gaming Group. We used the 2018 New Jersey igaming GGR result to avoid the sports betting impact discussed above.

In 2018 New Jerseyans spent 0.05 percent of state GDP on igaming. If 0.05 percent spend is applied to state GDP for North Carolina, that would translate to $270 million in GGR, which falls at the midpoint of our Year 5 baseline estimate and baseline +25 percent. We note that the adjustment to our baseline estimate is to account for significantly less gaming options in North Carolina than in New Jersey; however, the increase could in actuality be much greater.

Using the baseline +25 percent forecast for the first five years of operations of igaming, we estimated the total tax revenue to the State of North Carolina assuming a 15 percent tax rate.

Figure 54: Projected North Carolina igaming GGR tax receipts

Year 1 (M)	Year 2 (M)	Year 3 (M)	Year 4 (M)	Year 5 (M)
$18.5	$22.5	$29.7	$37.1	$45.1

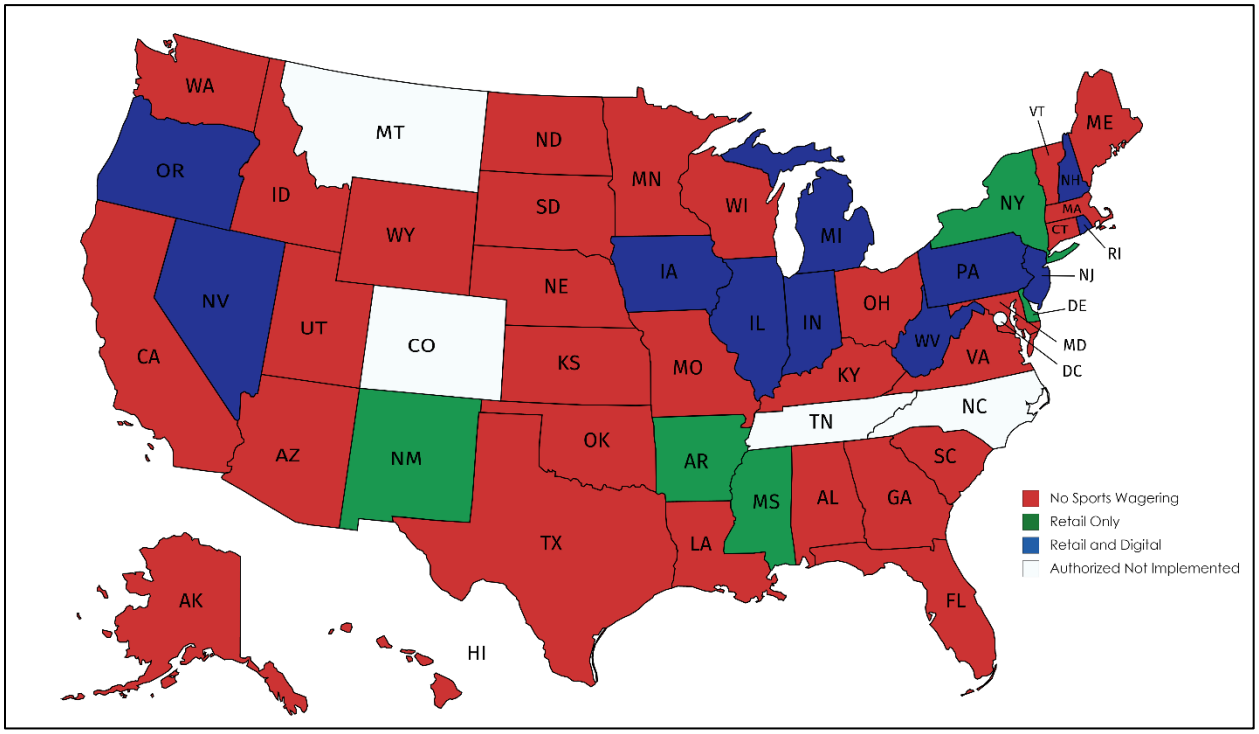
Source: Spectrum Gaming Group

D. Sports Betting

This section summarizes key findings from a separate sports betting market analysis completed for NCEL in December 2019[75] pursuant to Senate Bill 574, although for this report we have extended our forecast to five years to be consistent with the other gaming sector forecasts in this chapter.

Since the May 14, 2018, United States Supreme Court decision striking down the Professional and Amateur Sports Act, 15 states have joined Nevada to offer full sports betting. Four other states, including North Carolina, and the District of Columbia have legalized sports betting but have yet to implement it. Colorado and Montana are expected to launch betting in spring 2020, followed by Tennessee in late summer 2020. A Virginia sports betting bill awaits the governor's signature. At least 20 more states have introduced sports betting legislation.

Figure 55: Map of states' status of sports betting



Source: Spectrum Gaming Group, Mapchart.net. *Notes:* States' status as of March 13, 2020. **Tennessee** has authorized sports betting only via digital channels; it may launch by late summer 2020. Sports betting in **New Mexico**, and soon **North Carolina**, is offered only at tribal casinos. **Washington, DC,** is planning to launch digital betting in early spring 2020. **New Hampshire** offers only digital betting at this time but intends to add retail betting in the first half of 2020. **Illinois** plans to add digital betting later this year and **Michigan** plans to add digital betting in 2021. **Montana** was preparing to launch retail betting as early as mid-March 2020. **Colorado** was preparing to launch retail and digital betting on May 1, 2020.

[75] Spectrum Gaming Group, "Gaming Market Analysis: Analysis and Business Case of Impact of Regulating and Operating Sports Betting Through the North Carolina Education Lottery," December 9, 2019.

Sports betting can be offered through retail (i.e., at a physical location such as a casino or lottery retailer) or digital (i.e., online/mobile) channels, or both. Where both options are available, digital is the overwhelming choice by bettors, with New Jersey and Pennsylvania – the highest-grossing states with both retail and digital options – generating more than 85 percent of their sports betting handle from the digital channels in 2019.

In 2019, the combined sports betting gross gaming revenue among the 13 reporting states was $876 million. That total is little more than an early milestone in what is a fast-growing industry, as the existing sports betting states are very much in high-growth mode (except Nevada) and additional states will be offering the activity over the next few years.

Spectrum made two important assumptions in developing our sports betting GGR forecasts in North Carolina:

1. Betting would be allowed on in-state college teams. We recognize that this can be a controversial matter in any state, and Spectrum takes no position on this issue. Betting on in-state college teams is, or will be, offered in at least 13 of the 21 US jurisdictions where sports betting has been authorized.[76] We assume North Carolina would allow in-state college betting because (a) it will be offered at the Harrah's Cherokee casinos in North Carolina; (b) with 18 NCAA Division I colleges and universities, including four in the Atlantic Coast Conference, the State would be forsaking a significant revenue stream were it to prohibit bets on games involving in-state colleges; and (c) illegal sports betting would continue to thrive if in-state college betting were prohibited.
2. The legal age to bet on sports would be 21. This is, or will be, the legal sports betting age in most states and will also be the legal age to place bets at the Harrah's Cherokee casinos.

Spectrum recommended, and assumes in this report, that NCEL would be the State's sports betting operator, as it has considerable experience in operating and regulating gambling. We note that government lotteries are the choice to operate sports betting in …

- Five US states currently (Delaware, New Hampshire, Oregon, Rhode Island, West Virginia) and one more launching soon (Montana, as well as Washington, DC);
- Every Canadian province; and
- 17 Member States of the European Union

Spectrum recommends that NCEL offer sports betting through both its current retailer base and via digital channels, and our projections herein assume this plan. The retail channels

[76] Betting on in-state college teams is allowed in 13 states, including Oregon, where it is offered by tribal casinos but not at this time by the Oregon Lottery. The Michigan Gaming Control Board has yet to determine if betting on in-state college teams will be allowed in that state.

include self-service betting terminals ("SSBTs") placed at select lottery retailers, bars and restaurants that would be rolled out over a period of three years.

Estimated North Carolina Sports Betting Gross Gaming Revenue

Based on Spectrum's assumed sports betting platform for NCEL and on our analysis of results in the US, Canada and Europe, we developed gross gaming revenue projections for North Carolina. Spectrum projects that sports betting in the US will generate the equivalent of $50 to $70 of GGR per adult annually after a three-year ramp-up; for North Carolina, in an effort to be conservative for State budgeting purposes we used the low end of our per-adult range and adjusted it based on county-by-county household income and the lack of easily accessible gaming for most of the state. We developed our projections in two scenarios: with a first-mover advantage – i.e., North Carolina has sports betting but Georgia, South Carolina and Virginia do not – and without a first-mover advantage, as shown in the following table:

Figure 56: Forecasted North Carolina sports betting gross gaming revenue, years 1-5

↓ Sports Betting Channel	Year 1	Year 2	Year 3	Year 4	Year 5
Cumulative No. SSBTs →	500	2,000	5,000	5,000	5,000
With First-Mover Advantage					
Digital	$120,440,000	$223,670,000	$344,110,000	$352,710,000	$361,530,000
Retail (SSBTs)	$3,600,000	$10,990,000	$37,900,000	$38,850,000	$39,820,000
Bars & Restaurants	$15,050,000	$27,960,000	$43,010,000	$44,090,000	$45,190,000
Total Est. Revenue	$139,090,000	$262,620,000	$425,020,000	$435,650,000	$446,540,000
Without First-Mover Advantage					
Digital	$97,730,000	$181,490,000	$279,220,000	$286,200,000	$293,360,000
Retail (SSBTs)	$3,200,000	$9,990,000	$34,900,000	$35,770,000	$36,660,000
Bars & Restaurants	$12,220,000	$22,690,000	$34,900,000	$35,770,000	$36,660,000
Total Est. Revenue	$113,150,000	$214,170,000	$349,020,000	$357,740,000	$366,680,000

Source: Spectrum Gaming Group

We note that the Commonwealth of Virginia is expected to implement widespread legalization of gaming, including sports betting. As such, it appears that North Carolina would lose its first-mover advantage with respect to Virginia.

The percentage of GGR retained by NCEL would be dependent on its contractual arrangement with its selected sports betting provider. Spectrum will not herein provide an estimate of the sports betting profitability to avoid tying the hands of NCEL during contract negotiations with sports betting providers. In the five states where the lottery either operates or oversees sports betting, the percentage of GGR retained by the lottery varies significantly:

- Delaware: The lottery operates the sports betting and retains 51 percent of the GGR.

- New Hampshire: DraftKings operates sports betting (digital and, soon, at up to 10 approved retail locations), and the lottery retains 50 percent of the GGR. Intralot will operate the lottery channel that will allow players to place parlay bets at traditional lottery retail locations.
- Oregon: The lottery, which launched digital sports betting in October 2019 and plans to add SSBTs to select lottery retailers in 2020, has not disclosed the amount it will retain.
- Rhode Island: The lottery operates the sports betting in that state; it has subcontracted with IGT to operate the sports betting system. The Rhode Island Lottery retains 51 percent of the GGR.
- West Virginia: The lottery does not operate sports betting but rather authorizes it through their casino licensees and sports betting subcontractors; the West Virginia Lottery retains 10 percent of GGR.

Delaware and Rhode Island retain more of the GGR but they are also responsible for paying more of the operating expenses than West Virginia.

As offering betting through a network of lottery retailers is in its infancy (having begun in New Hampshire in December 2019), there is no guiding precedent to gauge the potential impact of betting on existing NCEL sales. However, Spectrum believes the nature of sports betting could minimally impact sales of certain NCEL games, and we have erred on the side of being conservative by forecasting that overall existing NCEL sales would decline by less than 1 percent in Year 1 of sports betting before showing growth again in Year 4.

In reviewing the current universe of NCEL retailers, Spectrum found that approximately 40 percent of the current retailer base is prime to become high-performing sports betting retailers. The table below shows the total sales of all NCEL products from the total universe of 7,154 active NCEL Lottery retailers, broken down into the top four deciles; it demonstrates that the top 40 percent of retailers sell 67.9 percent of all existing lottery products. Spectrum recommends that these 2,862 top-performing retailers be encouraged to apply for, and obtain, the licenses expected to be required for those retailers wanting to offer sports-betting through NCEL.

Figure 57: Total NCEL sales by retailer segment, top four deciles market share, FY 2019

Segment	Universe	Retailers	Total Revenue (M)	Share	Average (M)	Median (M)
1	All	1 to 7,154	$2,792.7	100.0%	$0.390	$0.317
2	Top 10%	1 to 715	$759.4	27.2%	$1.061	$0.937
3	Top 20%	1 to 1,431	$1,220.1	43.7%	$0.854	$0.745
4	Top 30%	1 to 2,146	$1,591.4	57.0%	$0.741	$0.639
5	Top 40%	1 to 2,862	$1,895.7	67.9%	$0.662	$0.574

Source: NCEL Lottery data, Spectrum Gaming Group

Spectrum recommends NCEL devise plans to recruit lottery retailers in areas of the state that may be under-represented to improve its retailer penetration rate and to identify potential sports betting retailers who are not current lottery retailers. This process should also be used to recruit new lottery retailers to sell traditional lottery products, which will increase traditional lottery sales.

It is evident that the bars and restaurants are under-represented as NCEL retailers, due at least in part to State restrictions on liquor licensing regarding the minimum ratio of food sales. If NCEL could grow its lottery retailer base by 500 restaurants and bars, and each new location sold $662,000 in lottery product per year (based on the average of the highest-grossing 40 percent of retailers), the increase in gross lottery sales would be $331 million annually. The 500 new restaurant and bar retailers would be prime candidates to be sports betting agents as well, and we expect sports betting revenue potential would be significant in these establishments.

E. Pari-Mutuel Horse Racing

Pari-mutuel handle (the total amount wagered) at one time was the best measure of the health of the industry when most racetracks only offered that type of wagering. To look at the health of only the pari-mutuel business, handle is still a good measure of the business trend, because absent other forms of gambling, commissions from the wagering are the main source of revenue for racetracks, purses and horse breeders' awards. Handle is similar to gross receipts but is not an indication of revenue.

National Trends

Approximately 78 percent to 80 percent of the wagering handle is returned to those holding winning tickets, divided in proportion to their wagers. The remaining 20 percent to 22 percent of the handle (called takeout) is for purses (prize money), breeders funds, track operations, taxes and third-party providers.

Figure 58: US pari-mutuel handle, 2009 – 2019

Year	Thoroughbred (M)	Standardbred (M)	Total US Handle (M)
2009	$ 12,315	n/a	n/a
2010	$ 11,419	$ 1,429	$ 12,848
2011	$ 10,770	$ 1,289	$ 12,059
2012	$ 10,882	$ 1,512	$ 12,394
2013	$ 10,877	$ 1,604	$ 12,481
2014	$ 10,552	$ 1,497	$ 12,049
2015	$ 10,675	$ 1,512	$ 12,187
2016	$ 10,744	$ 1,447	$ 12,191
2017	$ 10,909	$ 1,383	$ 12,292
2018	$ 11,267	$ 1,376	$ 12,643
2019	$ 11,039	$ 1,425	$ 12,464
% chg. 2010-19	-3.33%	-0.30%	-2.99%
% chg. 2009-19	-10.36%	n/a	n/a

Sources: The Jockey Club – 2019 Fact Book, United States Trotting Association

National handle since 2009 has not declined as rapidly as it did from its peak in 2003. From the early 1990s until 2003, total pari-mutuel handle increased significantly due to the extreme growth of distribution channels (discussed in more detail later).

Figure 59: Change in US pari-mutuel handle, 2003 – 2019

Year	Thoroughbred Handle (rounded to nearest M)
2003	$ 15,180
2019	$ 11,039
% chg.	-27.3%

Source: The Jockey Club – 2019 Fact Book

To analyze the decline in pari-mutuel handle from the 2003 peak, we examined just the Thoroughbred national handle from those years because the Standardbred handle from 2003 was not available. As the majority of handle is wagered on Thoroughbred races anyway, the decline of 27.3 percent gives a good indication of the total national handle change since that peak.

While handle gives some indication into the demand for pari-mutuel wagering, in order to examine the potential for expansion of pari-mutuel racing in new markets, the supply side of the business must also be studied. For the public to have an attractive wagering product, there must be races with quality horses and a full field of runners to bet on. The racetracks are the content providers, and the purses attract owners and trainers to race at the facility. In addition to the purses, most states have breed development programs in order to provide economic incentives to breed horses in-state, which helps to produce horses for races at the state racetracks.

Both the Standardbred (harness racing) and Thoroughbred breeding and racing data are presented here because either or both breeds would be reasonable options for North Carolina.

Figure 60: Standardbred breeding data, 2010 – 2019

Breeding Season	No. stallions at stud	No. mares bred	No. registered foals
2010	745	11,822	n/a
2011	675	11,239	6,841
2012	672	10,963	6,703
2013	656	10,814	6,404
2014	635	10,486	6,450
2015	648	10,010	6,302
2016	666	10,321	6,070
2017	716	11,027	6,216
2018	768	11,701	6,462
2019	668	11,827	6,775
% chg.	-10.3%	0.0%	-1.0%

Source: United States Trotting Association

Figure 61: Standardbred racing data, 2010 – 2019

Year	Race Dates	Number of Purse Races	Gross Purses Paid	Total Handle	Avg. Purses	Starters	Starts
2010	4,222	49,989	$431,420,310	$1,429,159,969	$8,630	24,025	388,427
2011	4,129	48,346	$422,979,537	$1,288,714,638	$8,749	22,840	374,047
2012	4,006	46,848	$406,619,582	$1,512,192,007	$8,680	21,804	364,480
2013	4,027	46,913	$422,409,699	$1,604,039,996	$9,004	21,649	364,180
2014	3,857	44,375	$408,981,024	$1,497,004,583	$9,216	20,287	342,575
2015	3,906	44,692	$424,555,242	$1,512,300,328	$9,500	19,622	343,830
2016	3,835	43,488	$423,038,193	$1,446,796,214	$9,728	18,934	336,068
2017	3,774	41,931	$435,104,465	$1,383,189,222	$10,377	18,022	320,802
2018	3,622	40,304	$432,086,536	$1,376,360,696	$10,721	17,165	306,878
2019	3,595	40,449	$442,748,880	$1,424,886,558	$10,946	16,851	308,090
% chg.	-14.9%	-19.1%	2.6%	-0.3%	26.8%	-29.9%	-20.7%

Source: United States Trotting Association

The Standardbred racing industry in the United States is primarily regional, with most of the racing occurring in the northeast and midwestern states. New York and Ohio represent much of the pari-mutuel Standardbred racing in the United States, but other northeastern and midwestern states do have one or two pari-mutuel Standardbred racetracks. There are also many non-pari-mutuel events that occur on the fair circuits or at small racetracks, hosting just a few days of racing each year.

The trend of the racing data presented here is typical of all racing in the United States over the past several decades. The supply of races and horses is down, but the purses have either been level or shown some increases. A large part of the "purses up and races down" trend has

been a result of the expansion of racinos (a racetrack with casino gambling, such as slot machines) or added gaming revenue from other sources augmenting the purses.

There has been a decline in purse races (not including some fair-circuit harness races and trial races that do not have a purse awarded for the race) and starters. The supply of races has declined due to a variety of reasons such as horse supply declines and racetracks wanting to eliminate nonprofitable race days.

The Thoroughbred data for 2019 were not available in its entirety at the time of this report so in order to have a complete comparison, the years 2009-2018 were utilized for the Thoroughbred data set, as follows.

Figure 62: Thoroughbred breeding data, 2009 – 2018

Breeding Season	No. stallions at stud	No. mares bred	No. registered foals
2009	2,996	45,826	29,612
2010	2,771	40,841	25,954
2011	2,483	36,647	22,653
2012	2,296	35,017	21,469
2013	2,178	34,939	21,429
2014	2,036	35,529	21,418
2015	1,856	35,305	21,486
2016	1,783	34,441	21,024
2017	1,714	32,582	20,900
2018	1,506	30,984	19,925
% chg.	-49.7%	-32.4%	-32.7%

Source: The 2019 Jockey Club Fact Book

As can be seen from the data above, Thoroughbred breeding over the past 15 years has experienced significant declines. This is despite the fact that Thoroughbred races in the United States are more popular for pari-mutuel wagering than races for other breeds and make up a large portion of the overall market, as evidenced in the handle totals in Figure 58.

Figure 63: Thoroughbred racing data, 2009 – 2018

Year	Race Dates	Races	Gross Purses Paid	Total Handle (rounded to nearest million)	Avg. Purses	Starters	Starts	Average field size
2009	5,886	49,368	$1,098,186,870	$ 12,315,000,000	$22,245	103,790	407,554	8.3
2010	5,422	46,379	$1,031,443,979	$ 11,419,000,000	$22,239	99,020	380,511	8.2
2011	5,280	45,417	$1,061,210,889	$ 10,770,000,000	$23,366	94,432	366,149	8.1
2012	5,296	45,086	$1,127,801,116	$ 10,882,000,000	$25,014	90,077	356,199	7.9
2013	5,118	43,139	$1,127,210,117	$ 10,877,000,000	$26,130	85,995	339,490	7.9
2014	4,973	41,276	$1,111,715,735	$ 10,552,000,000	$26,934	81,451	318,242	7.7
2015	4,754	38,941	$1,093,667,288	$ 10,675,000,000	$28,085	79,886	305,780	7.9
2016	4,669	38,284	$1,083,696,320	$ 10,744,000,000	$28,307	78,350	298,784	7.8
2017	4,573	37,628	$1,079,738,294	$ 10,909,000,000	$28,695	76,034	290,745	7.7
2018	4,432	36,586	$1,117,728,125	$ 11,267,000,000	$30,551	73,178	279,774	7.6
% chg.	-24.7%	-25.9%	1.8%	-8.5%	37.3%	-29.5%	-31.4%	-7.4%

Source: The 2019 Jockey Club Fact Book

The overall trend for Thoroughbreds is similar to that seen with the Standardbred data in Figure 61, however the supply decline of races and starters for Thoroughbred races is even steeper than that for Standardbred races.

The causation of "purses up and races down" is the same for Thoroughbreds: inventories of horses declining, tracks reducing race dates and purses growing due to sources of alternative revenue, such as slot machines or other gaming revenues.

Impact of Horse Racing on the Economy

The key drivers of horse racing's economic impact within a state are the breeding farms, the horse owners, and the jobs they create. Wagering on live racing is vital to delivering purses and breeders' awards that drive those horse activities. Off-track wagering and wagering through out-of-state account wagering providers contribute much less to the overall impact than on-track expenditures to produce the live racing product.

On a national basis, the economic impact of the horse racing business has been well documented and it is significant. According to a 2017 national economic impact study on the horse industry, the racing sector "supports more than 241,000 direct jobs and adds $15.6 billion in direct value to the national economy. These direct impacts drive a further $21 billion in added value to the economy and create more than 231,000 jobs from indirect and induced effects."[77]

On a statewide basis, the states that are included in the case studies later in the report, along with a bordering state, are highlighted below for comparison purposes to North Carolina. Information relating specifically to the horse racing industry was available for Maryland, Michigan

[77] "Economic Impact of The US Horse Industry," the American Horse Council Foundation, 2018.

and Virginia as the 2017 national economic impact study referenced above included breakout studies for some individual states.

Indiana: There was not a breakout study done for Indiana by the American Horse Council in 2017, but there was an economic study on the horse racing industry performed by Purdue University in 2010 after the racetracks were permitted to operate slot machines. The Purdue study indicated "the horse racing industry in Indiana generates by direct payment, as well as from indirect and induced economic activity, $73 million in tax revenues. Of that, $29 million is in various forms of federal taxes and $45 million in state and local taxes."[78] The total direct impact was over $319 million and added with indirect/induced effect the total was calculated to be $448 million.[79] A study conducted by the American Horse Council in 2005, which was before slots were permitted, reported a direct economic impact of $181 million and a total economic impact of $294 million. The 2005 study also reported $5 million in state and local taxes by the racehorse industry.[80]

Michigan: The American Horse Council Foundation recently released a number of statistics on the economic impacts that the horse industry has on Michigan. The two-year study broke down the impact into five different sectors. The racing sector supports 3,946 jobs and creates a total impact of $389 million.[81]

Maryland: The Maryland breakout study estimates a $500 million impact from the horse racing sector.[82] The racing industry in Maryland does receive casino gaming revenue to support purses, breeding awards and racetrack facilities.

North Carolina: North Carolina's American Horse Council's breakout study does not specify the small racing contribution from the steeplechase sector but "showed that the equine industry added $2 billion to the North Carolina economy, with over 25,000 people working directly in the industry. When full accounting of the additional impact on tourism and other industries is taken into consideration, the total economic impact of the equine industry in North Carolina is $3.44 billion, supporting over 36,000 jobs."[83] North Carolina does not have any

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[78] "Economic Impact of the Horse Racing and Breeding Industry to Indiana," Purdue Extension, May 2013. https://www.extension.purdue.edu/extmedia/ID/ID-445-W.pdf

[79] Ibid.

[80] Ibid.

[81] "Economic and cultural impact of horses in the state of Michigan," WBKB11, August 22, 2018. http://www.wbkb11.com/economic-and-cultural-impact-of-horses-in-the-state-of-michigan

[82] "Maryland: Horse Racing Industry Has $500 Million Economic Impact," *The Paulick Report*, May 14, 2018. https://www.paulickreport.com/news/the-biz/maryland-horse-racing-industry-has-500-million-economic-impact/

[83] "NC State, NC Horse Council Forge Partnership Focused on Equine Industry," *Veterinary Medicine News*, North Caroline State University, March 13, 2019. https://cvm.ncsu.edu/partnership-focused-on-equine-industry/

significant horse racing sector contributions at this time other than a few steeplechase race days and limited breeding of Thoroughbreds.

Virginia: The equine industry in Virginia directly contributes over $1.34 billion to the state's economy, along with over 29,000 jobs. With the ripple effects of indirect and induced effects, the total contribution to the Virginia economy is approximately $2 billion. Out of this total, the horse racing sector contributes $110 million in direct impact, supporting 2,428 jobs and adding indirect/induced contributions of $190 million and 955 additional jobs.[84]

Competitive Environment

The national economic trends in the horse racing industry highlighted above have been affected by several factors over the past 50 years, including political, economic/competitive environment, social and technological changes. The brief historical review and noted trends discussed below are important to understand and recognize when examining the potential success of horse racing in North Carolina.

The negative impacts on horse racing began in the 1970s, but the true effects were masked by a number of unique events. The decade had three Triple Crown winners in a short period, keeping horse racing in the spotlight. Racetracks were still considered a good investment, and there were several new tracks built because of this optimism.

During the 1980s, some racetracks began to lobby state legislatures for tax relief as the economic trends became clearer, while other business models were experimented with, in an attempt to expand market penetration and distribution. This decade introduced the first version of account wagering, with telephone operators taking wagers in some jurisdictions.

Intertrack and interstate wagering also began during the 1980s. Many tracks, with the approval of state legislatures and regulatory bodies (including Louisiana, Illinois, Pennsylvania and California), looked to off-track betting or satellite wagering facilities (OTBs) to expand their distribution. The Indian Gaming Regulatory Act ("IGRA"), a piece of federal legislation that was not directly related to the horse racing industry, passed in 1988 and had a significant influence over the next several decades on the competitive environment. The expansion of casino-style gaming as a result of this legislation, across the US, is well documented.

In the 1990s, horse racing market forces experienced more change than any other previous decade. As mentioned above, simply looking at horse wagering handle alone is deceiving. All of the market changes that occurred during the next 30 years as a result of the changes in the 1990s have had significant impacts on the market fundamentals of all brick-and-mortar wagering facilities, such as racetracks and OTBs.

[84] "Economic Impact of The Horse Industry in Virginia," the American Horse Council Foundation, 2018.

Because of these changes, pari-mutuel handle grew (from 1990 to 2000 Thoroughbred handle was up 52.6 percent[85]) but the margins on significant portions of that handle were less and the growth was exclusively from increased distribution from simulcasting. Besides the lower margins, the expenses of distribution and third-party technology companies increased costs for racetracks. By the mid-1990s, horse and greyhound simulcast wagering used more satellite time than major league sports. The large growth of distribution channels was the major reason for the handle growth in the 1990s.

Full-card simulcasting proliferated during the decade, and full-card commingling of wagering pools expanded rapidly as more states expanded distribution channels by approving off-track betting and New York joined other states in legalizing phone wagering.

Both casinos and racinos also became legal in many jurisdictions during this decade. The rapid expansion of gaming during this decade had a significant negative impact on the horse racing competitive environment, but due to the large increase in distribution channels the impact was not as clearly visible.

Another major industry development that began in the later part of the 1990s was racetrack and racing company consolidation. Magna Entertainment Corporation (now The Stronach Group), Penn National Gaming and Churchill Downs began buying racetracks and racing companies, which changed market fundamentals. The conglomerate organizations increased their power as content suppliers and dramatically increased the price (host fees, or the royalty for importing a racing signal for simulcast wagering purposes) of their content.

The 2000s exposed, more dramatically, the effects of many of the changes that were taking place in the previous decades. The wagering growth of the 1990s ended in 2003. (Thoroughbred handle peaked at $15.2 billion in 2003 but by 2014 had dropped to near 1995's level of $10.5 billion.)[86]

Despite this, more states approved internet account wagering after a 2000 amendment to the Interstate Horse Racing Act of 1978 was passed. The amendment included "telephone and other electronic forms of wagering in states where that type of betting is legal, and explicit exemption for horse racing to conduct interstate wagering."[87]

Growth of account wagering and internet wagering, along with the practice of rebating customers (crediting high-volume players a percentage of the amount wagered back to their

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[85] "The 2019 Fact Book," The Jockey Club. http://www.jockeyclub.com/Default.asp?section=Resources&area=11

[86] Ibid.

[87] Ray Paulick, "Waldrop: Online Betting On Horse Racing Still Legal Despite Justice Department Reversal On Wire Act," The Paulick Report, January 15, 2019. https://www.paulickreport.com/news/ray-s-paddock/waldrop-online-betting-on-horse-racing-still-legal-despite-justice-department-reversal-on-wire-act/

accounts) started in the 1990s, but the growth rapidly accelerated during the 2000s. As an example, the Oregon hub, which was where the majority of large account wagering providers (ADWs) process the pari-mutuel wagers due to Oregon's favorable tax rates, saw wagering handle for multi-jurisdictional simulcast wagering licensees grow from $19 million in 2000 to $4.2 billion in 2018.[88]

Figure 64: US handle and Oregon hub account wagering handle, 2010 – 2018

Year	Total US Handle	Total ADW Handle - Oregon Hub	Oregon Percent of Total Handle
2010	$12,848,159,969	$ 1,448,791,377	11.28%
2011	$12,058,714,638	$ 1,844,927,705	15.30%
2012	$12,394,192,007	$ 2,211,317,676	17.84%
2013	$12,481,039,996	$ 2,479,603,871	19.87%
2014	$12,049,004,583	$ 2,650,825,592	22.00%
2015	$12,187,300,328	$ 2,870,426,365	23.55%
2016	$12,190,796,214	$ 3,095,668,039	25.39%
2017	$12,292,189,222	$ 3,742,093,886	30.44%
2018	$12,643,360,696	$ 4,216,834,582	33.35%
% chg.	-1.59%	191.06%	

Source: The Jockey Club Fact Book 2019, United States Trotting Association, Oregon Racing Commission

The fourth-quarter data for 2019 for the Oregon hub wagering handle was not available at the time of this report, therefore 2018 was the last complete year available for comparison purposes. Because the Oregon hub represents the vast majority – but not all – of the account wagering handle, this form of wagering now represents well over 33 percent of all handle.

While full-year figures are not available, it is likely the 2019 handle through the Oregon hub will end the year ahead of 2018, as the handle was reported to be up 3.7 percent for the first three quarters of the year compared to 2018. Assuming the trend continues for the fourth quarter, the Oregon hub handle will be over 35 percent of all handle and account wagering could easily be as much as 40 percent of handle overall. The trend of shifting dollars to account wagering has put more pressure on the profitability of a racetrack and other brick-and-mortar operations. How this trend of shifting wagers to ADWs affects the pari-mutuel industry and operations is looked at more in more detail in the next section.

Factors Impacting Potential Investment and Economics

In addition to the historical trends and changes the pari-mutuel horse industry has experienced, other market fundamentals have had an impact on the pari-mutuel industry.

[88] "Oregon Racing Commission Quarterly Hub Handle reports," Oregon Racing Commission, September 2019. https://www.oregon.gov/Racing/docs/Hub_Data/2019/2019_September__hub_handle.pdf

Perhaps the most significant factor that influences a decision to invest in building a horse racing facility, and the ultimate success of that facility, would be the competitive environment. What other gaming competition exists or is likely to be permitted in the market? What gaming, if any, in addition to pari-mutuel, is permissible with the racetrack license? If only pari-mutuel wagering is permitted, will the state legalize wagering on historical races (discussed below) and be part of the race facility license? These are important questions to answer given the tremendous growth of both brick-and-mortar casinos and internet casino gaming options that are easily available to consumers.

The statutory and regulatory framework for horse racing in the state is another factor. The amount of live racing required, the tax structure, and the permissible forms and distribution channels (OTBs, ADWs etc.) for pari-mutuel wagering will influence any investment. And is discussed in more detail in a section that follows, these issues need to be addressed in a comprehensive way prior to initiating legislative action.

Permissible Gaming with a Pari-Mutuel License: Except for California (and Texas prior to September 2019), most states with any significant racing industry rely on support from other sources. Many states that permit pari-mutuel wagering at racetracks now allow other forms of gaming at the tracks, notably slot machines or similar electronic gaming devices. Other state statutes allocate revenue from in-state casinos or other types of gaming to provide funds to the horse industry.

Some states augment live and simulcast racing with "historical horse racing (HHR) machine gaming," which "is an electronic wagering system which allows pari-mutuel betting on videos of previously run horse … races using machines, that cosmetically at least, resemble slot machines. These machines are currently in use in several states."[89] The latest generation of HHRs almost mimic a true slot machine in form and function. In those states, the HHR machines are permissible due to the state's statutory definition of pari-mutuel games.

Competition: The current gaming competition and the outlook for other forms of gaming competition in the future have a large impact on the potential success of any new pari-mutuel wagering endeavor. As an example, the recently re-opened Colonial Downs horse race facility (discussed later in the "Case Studies" section) is concerned about casinos being potentially legalized in Virginia. Virginia's "Joint Legislative Audit and Review Commission released its report about casino gambling. … (T)he report found casinos would have a modest economic impact, but would hurt the horse racing industry, potentially leading to a 45% hit."[90] The expansion of casino-

[89] "Texas Racing Commission 2015 Annual Report," Texas Racing Commission 2015, p. 16. http://www.txrc.texas.gov/agency/reports/AnnualRpt/AnnualReport2015.pdf

[90] Brendan Ponton, "Horse racing industry worries about potential impact of casinos in Virginia," 3WTKR Richmond. November 26, 2019. https://wtkr.com/2019/11/26/horse-racing-industry-worries-about-potential-impact-of-casinos-in-virginia/

style gaming in the United States was a factor in the evolution of the "racino." Because casino competition had such a negative impact on the existing business, several states permitted racetracks to add casino-style gaming at their facilities.

This rapid expansion of casinos, sports wagering, other gaming and the "have and have-not effect" of racinos continues to negatively impact pari-mutuel horse race wagering.

ADWs and the Shift Of Wagering Away from Brick-and-Mortar Facilities: As illustrated in the historical review, the product distributors of live racing content have gained the lion's share of the pari-mutuel horse race wagering market over time while not having the large capital expenses that tracks and horsemen incur in producing the live horse racing content. The OTBs have no expenses associated with producing live racing, and the ADWs have no need for an actual facility.

Because of this, the ADWs do not contribute as much to live racing, beyond the host fees they pay to obtain content or the source market fees (paid to the local racing market in which the bettor resides) they are required by statute to pay in some jurisdictions. Therefore, ADWs have larger margins on the wagers made and can rebate significant portions of the wagers to the bettor in order to attract customers. Brick-and-mortar facilities do not have the margin to compete with this structure. Rebates also stimulate churn (winning wagers bet back into pari-mutuel pools) of the betting dollars, which adds to the revenue collected over time.[91]

Another market change that has an impact on all brick-and-mortar wagering sites is the growth of computer-assisted wagering ("CAW"), also referred to as computer robotic wagering ("CRW"). Models have been built with algorithms that process large volumes of historical data and identify inefficiencies in the wagering market, and computers automatically place wagers to exploit these inefficiencies. It is analogous to some computerized day-trading systems that make stock market trades.

The success of CRW wagering systems, combined with the rebates they received for volume wagering, resulted in extraordinary win rates and created negative settlements for many wagering sites due to the fact that commingling of pari-mutuel pools requires settlements as a result of the wagers being made in different geographical locations. When one location/site has more winning wagers placed than another, the losing dollars from the one site "pay" for the winning wagers elsewhere and can result in a negative settlement for the site with more losing wagers. This shifting of winning dollars out to the ADWs that host the CRW wagers means those dollars will not be available to be churned in the local market, which has a net negative impact on the volume wagered at brick-and-mortar facilities.

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[91] "Task Force on the Future of Off-Track Betting in New York State," January 13, 2010. p. 25. https://www.gaming.ny.gov/pdf/Task%20Force%20Final%20Report%201-08-10%2011am.pdf

Other global technology advances have propelled the ADW growth and the shift of wagering away from brick-and-mortar locations. The technological advances of the past two decades facilitate better video streaming of the races on computers and phones. This allows customers easy access to video from anywhere at any time and, historically, access to video has had a significant positive effect on pari-mutuel wagering growth. Improved technology also made providing critical handicapping data to customers more user-friendly. Technological advances will continue to enhance the internet/mobile experience for the customer who chooses this method of pari-mutuel wagering at the expense of the on-track experience.

Social Environment and Consumer Preferences: The social environment and associated consumer behaviors and tastes has been another factor impacting the pari-mutuel industry. One recent factor that is a serious threat today is animal welfare. Changing attitudes toward the use of animals in sport have resulted in protests against horse racing. National media, including the *New York Times*, CNN, *Washington Post* and *Los Angeles Times* have put the spotlight on Thoroughbred racing. During 2019, the horse racing industry faced negative publicity throughout the year involving a series of fatal injuries to racehorses. The horse racing industry had just experienced four years of positive handle growth from 2014 to 2018 (increasing 6.7 percent over that time period) and perhaps the negative publicity was a contributing factor that reversed that trend as handle declined 2 percent from 2018 to 2019.[92] The social environment and changing attitudes toward animals will challenge the horse racing industry as it tries to promote a social license to operate (generally defined as a level of acceptance or approval by local communities and stakeholder organizations of organizations and their operations or societal acceptance, tolerance and consent to an activity that is generally considered to be outside the norm).

The expected customer base for the product(s) is an important assessment to make compared to the level of capital investment required. The more familiar the customer is with the product offered, generally the more that will be wagered. This presents a significant challenge for investors that may invest in building a racetrack in a new market unfamiliar with pari-mutuel wagering generally and horse racing specifically as wagering on racing involves a significant learning curve. Many potential customers in North Carolina are likely unfamiliar with racing and have never actually seen a race in person. This is a similar situation to that in Texas when it legalized pari-mutuel wagering on horse racing in 1987[93] after not being permitted for many years. The racetracks spent considerable time and money educating customers about the sport and wagering as most new customers who are unfamiliar with the product make low per capita wagers before they gain confidence and understand the complexities and move towards higher

[92] "The 2019 Fact Book," The Jockey Club. http://www.jockeyclub.com/Default.asp?section=Resources&area=11

[93] "The History of Horse Racing," Texas Horse Racing Hall of Fame. https://txhof.com/texas-horse-racing-history.html (accessed January 30, 2020)

per capita wagers. The Pareto principle (the 80/20 rule) applies to horse wagering's customer base – a small percentage of players account for a significant portion of all wagers. One of the fundamental changes for pari-mutuel horse racing has been the shift of the most valuable (high-volume bettor) customers to account wagering, where the margins derived from their wagers are much smaller for the live racing venue.

Another factor that would affect growth or capital investment is the increase in the expectations of spectators, which increases costs for the operator. (Examples include demand for wi-fi, cellular reception, high definition, etc.) The calendar of potential dates that live races could be run and options that spectators have that compete for their entertainment dollars affect potential investment. As an example, any fall weekend races must compete against college and pro football, which are popular in North Carolina.

Social, economic, environmental, technological and political changes in the future will continue to have an impact on the tax revenues, economic impact and success of a horse racing industry in North Carolina. Consumer preferences continually shift and as new competition such as esports, other gaming and other entertainment options arise they will present ongoing challenges for horse racing, which will require innovation in order to remain competitive in the marketplace

Horsemen Participation in the North Carolina Racing: A vital element to the success of horse racing (and thus another factor influencing investment) is the ability to produce quality content to wager on. Having horses raised, trained and racing in North Carolina, should pari-mutuel racing be permitted, would be critical to the direct economic impact, indirect/induced impact and potential tax revenue.

When examining the breeding and racing statistics nationally, there has been a decline in the number of races, number of horses participating and the number of licensed horse owners. These declines have put pressure on existing racetracks when trying to put on races with full fields and quality races for the public to wager on.

Purses that the horses compete for is the main factor in attracting horse owners to race at a facility because there are plenty of racetrack options available in the Northeast. What attracts breeders to breed horses in a particular state is often based on the breeder awards available to compete for in that state and the purse structure in that state.

Purses have remained relatively stable over the past couple of decades, but the source of those purse funds has changed quite significantly. Decades ago, the source of almost all purse funds was generated from a percentage of the wagering handle. As described in the historical overview, many racetracks are now racinos or receive funding that goes to purse funds from alternative gaming such as VLTs, slots, HHR machines and other casino-style gaming. The same has happened to the source of funding for breeders' awards and state-bred restricted races as

those funds now typically come from a blend of a small percentage of the wagering handle and other alternative gaming revenues. While this has stimulated horse investment in some states, it has made it difficult to compete with those jurisdictions without funding to purses and breed development programs from alternative gaming such as VLTs, slots, HHR machines or other gaming.

Currently there is not any substantial Thoroughbred or Standardbred breeding in North Carolina for racing purposes. To stimulate breeding for racing in North Carolina, it would require a well-funded breed development program tied to the racing industry. Because many states in the region already have lucrative breeding programs for Thoroughbreds and/or Standardbreds, North Carolina would likely need funding from alternative gaming to be competitive and entice breeders to move breeding stock and raise horses in North Carolina.

Recent Developments in Nearby States

Activities in nearby states will impact the relative success of horse racing in North Carolina. A number of current and potential changes made in states near North Carolina will put pressure on any potential North Carolina industry to attract horse owners, trainers and breeders to participate. This in turn will affect the wagering product that North Carolina can offer in both the quality and quantity of races.

Georgia: The Georgia Horse Racing Coalition has actively pursued legislation to allow pari-mutuel horse racing and pari-mutuel HHR machines in the state. If permitted, the logical location for a facility would be near Atlanta, which would have an impact on a North Carolina pari-mutuel industry. However, according to one source, the appetite for casino gambling and horse racing may not be there to pass any legislation in the 2020 session, and a constitutional amendment would need to pass for any additional wagering options.[94]

Kentucky: Kentucky would provide challenging competition for attracting horses, horse owners and trainers and breeders to North Carolina. Kentucky racetracks/training facilities are permitted to have HHR machines onsite. The growth created since the installation of the machines at the track has stimulated the horse racing and breeding industry. With the addition of 900 machines in September 2018 at Derby City in Louisville and the addition of terminals at other facilities, the HHR wagering in Kentucky in FY 2020 to date compared to FY 2019 to date grew 76.7 percent.[95]

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[94] Claire Simms, "Georgia lawmakers begin 2020 session," Fox 5 News Atlanta, January 13, 2020. https://www.fox5atlanta.com/news/georgia-lawmakers-begin-2020-session

[95] "Kentucky Historical Horse Racing Report for December, 2019," Kentucky Horse Racing Commission. http://khrc.ky.gov/Documents/2019-12-Historical%20Horse%20Racing%20Handle%20Report.pdf

Figure 65: Kentucky historical horse racing machine performance, 2019

	FYTD - 2019	FYTD - 2020	% Chg.
Total HHR Handle	$ 790,159,163	$ 1,396,544,258	76.7%
Gross Commission	$ 64,983,242	$ 116,732,703	79.6%
Thoroughbred Development Fund	$ 5,378,127	$ 9,629,337	79.0%
Standardbred Development Fund	$ 730,756	$ 1,126,327	54.1%
Kentucky General Fund	$ 4,453,505	$ 8,902,500	99.9%
Number of HHR Terminals	2,734	2,891	5.7%

Source: Kentucky Horse Racing Commission

In addition to the two breeding development funds and the Kentucky general fund, portions of the HHR revenue go to the Equine Industry Program at the University of Louisville, Equine Drug Research at the University of Kentucky, and the higher education funds.

Virginia: The Virginia legislature approved HHR machines, and the Virginia Racing Commission adopted regulations governing historical horse racing. The regulations permit up to 3,000 machines statewide. The machines will be both at the racetrack, Colonial Downs, and at satellite gambling facilities (OTBs.)[96] The legislation and regulations paved the way for live racing to return to Colonial Downs in 2019 after ceasing operations in 2014. The track was sold by Jacobs Entertainment to Chicago-based Revolutionary Racing, and Colonial Downs[97] offered 19 live race dates in July and August 2019.

Racing and gaming in Virginia will have an impact, should racing be approved in North Carolina. The gaming and racing in Virginia would be more attractive and lucrative than a stand-alone pari-mutuel product (without HHR machines) in North Carolina. The Virginia market will attract both horse owners and trainers, hurting the potential supply of horses for North Carolina. It also will attract customers because the Virginia facilities will offer more gaming options than just live and simulcast pari-mutuel wagering. At the time of this report, several other gaming legislative issues were being considered in Virginia that could have a negative impact on any North Carolina pari-mutuel industry. Both sports wagering and the legalization of casinos are under consideration.

Maryland, New York and Pennsylvania: Maryland, New York and Pennsylvania all have strong racing and breeding programs that have funding from either slots or VLTs. Combined with Kentucky, the states represent 55 percent of the entire US Thoroughbred breeding industry.[98]

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[96] Graham Moomaw, "Virginia Horse Racing Officials Adopt Rules That Limit Expansion of Slots-Like Gambling Machines," *Richmond Times-Dispatch,* October 2, 2018. https://www.roanoke.com/news/politics/general_assembly/virginia-horse-racing-officials-adopt-rules-that-limit-expansion-of/article_c511ca08-471e-5912-8a16-ee0ebfd536cc.html

[97] Ibid.

[98] "The 2019 Jockey Club Fact Book," The Jockey Club, 2019. http://www.jockeyclub.com/Default.asp?section=Resources&area=11

For North Carolina to establish a reasonable breeding program to attract part of that sector of horse racing's economic impact, it would have to have a well-funded breeding program.

Regulatory Considerations

Any plan to initiate pari-mutuel wagering at any facility in North Carolina must start with the passage of statutory language that enables the legality of pari-mutuel wagering and establishes a regulatory authority and mandate. As it currently stands under North Carolina General Statutes, pari-mutuel is not a permitted form of wagering.

The scope of the enabling legislation is somewhat dependent on the type of business model for pari-mutuel wagering that is desired from the start. Efforts to draft this language should be inclusive of all potential stakeholders, as much as possible. While legislation can always be changed, it would be easier to assess the needs and models best suited for the goals of North Carolina prior to drafting the initial legislation.

As discussed in the prior section on "Competitive Environments," there are a number of current business models for pari-mutuel wagering. The one thing that all states that allow pari-mutuel wagering have in common, though, is the economic infeasibility of relying entirely on on-track wagering. There simply is not enough revenue that can be generated by on-track wagering to make the capital-intensive investment for track operators worthwhile, nor is there enough revenue generated to provide appropriate regulation for live racing. Every state that conducts pari-mutuel wagering in the United States has moved to some blend of revenue-producing models that supplement on-track wagering.

The variety of business models and the necessity of providing the financial incentives for development of the necessary infrastructure demonstrates the importance of identifying a plan prior to drafting the enabling language, as any of these models would need to be authorized and the responsibility for regulating these endeavors would need to be assigned. Additionally, the funding of any state agency given the regulatory oversight responsibility would need to be considered, as all these models carry significant personnel and specific expertise requirements.

As a current example of the complexity and importance of the enabling language, North Carolina Senate Bill 165, which was filed February 27, 2019, edits several sections of §18C of the General Statutes and creates a new Article 9 that serves to enable the North Carolina Lottery Commission as the state agency that regulates off-track wagering facilities. While this proposed legislation is relatively complete regarding the qualifications and regulations for off-track pari-mutuel wagering, it does not explicitly allow for on-track pari-mutuel wagering or any other form of off-track wagering, such as advanced deposit wagering.

Performance in Other States

To forecast the potential for pari-mutuel racing in North Carolina, Spectrum examined racetrack developments made in the past several decades with consideration given to market size and racing business models for facilities that were built as pari-mutuel facilities, without any additional gaming activity on the premises. Four states met the criteria. Of the four case studies, three were built exclusively as pari-mutuel facilities without supplemental gaming, while Indiana is included because it is an example of a state with a similar market size to North Carolina that began solely as a pari-mutuel model before shifting to a racino business model.

Figure 66 below compares the metropolitan area populations of the locations of the racetracks examined, as well as the most likely market based on population size for horse racing in North Carolina, should pari-mutuel wagering be permitted:

Figure 66: Estimated metropolitan area populations, 2018

	Metropolitan Area Population	State Population
Charlotte - Concord – Gastonia, NC	2,569,213	10,383,620
Detroit - Warren – Dearborn, MI	4,326,442	9,995,915
Indianapolis- Carmel- Anderson, IN	2,048,703	6,691,878
Richmond, VA	1,306,172	8,517,685
San Antonio-New Braunfels, TX	2,518,036	28,701,845

Source: United States Census Bureau

Virginia's Colonial Downs is useful to examine because the competitive market and regional similarities are comparable. The population of Richmond, central to the market in which Colonial is located, is not as large as Charlotte, but the results give insight into potential success. The second case study is the development of two racetracks, Hoosier Park and Indiana Downs in the Indianapolis area. The population of that market is much closer to that of the Charlotte area but the racing industry in Indiana, for a number of years, received added supplemental revenue from gaming, which will be highlighted further. The third track examined was Retama Park near San Antonio, which has a similar population to Charlotte. The fourth case study was in a much larger metropolitan market, Detroit-Warren-Dearborn. The track, Pinnacle Race Course, was built as a stand-alone racetrack without other gaming revenue but in a highly competitive market with standalone casinos. These four case studies should provide sufficient insight into the development of pari-mutuel wagering in North Carolina.

Indiana: Hoosier Park & Indiana Downs

Wagering Trends: Indiana's first pari-mutuel horse racing track, Hoosier Park, opened in the fall of 1994 in Anderson, Indiana, about 45 minutes from downtown Indianapolis. A statute permitting riverboat gambling in Indiana earmarked sixty-five cents of a three-dollar riverboat admission tax to the pari-mutuel horse racing industry. Those funds were distributed to various

segments of the racing industry in accordance with Indiana Horse Racing Commission rules.[99] Despite arguments from Hoosier Park, a second racetrack was approved in Indiana, and Indiana Downs opened in 2002 in Shelbyville about 30 minutes from downtown Indianapolis. The table below illustrates the historical wagering data since the inception of live racing in the state:

Figure 67: Indiana horse racing wagering and alternative gaming funding, 1995 – 2018

Year	Total Handle	Live Handle	Simulcast Handle	Tracks	0.65 riverboat admission tax to industry	Racino slot revenue to industry
1994	$ 20,176,394	$ 13,242,632	$ 6,933,762	Hoosier Park		
1995*	$ 119,150,462	$ 19,564,693	$ 99,585,769	Hoosier Park	$ 98,021	
1996	$ 149,245,922	$ 15,009,742	$ 134,236,180	Hoosier Park	$ 6,094,471	
1997	$ 146,957,129	$ 14,516,725	$ 132,440,404	Hoosier Park	$ 16,147,092	
1998	$ 149,861,679	$ 14,596,411	$ 135,265,268	Hoosier Park	$ 22,249,917	
1999	$ 155,266,949	$ 14,054,393	$ 141,212,556	Hoosier Park	$ 24,698,533	
2000	$ 152,125,590	$ 14,020,036	$ 138,105,554	Hoosier Park	$ 25,100,380	
2001	$ 149,317,405	$ 14,097,086	$ 135,220,319	Hoosier Park	$ 26,815,628	
2002*	$ 147,600,000	n/a	n/a	Hoosier & IN Downs	$ 23,699,287	
2003	$ 165,759,988	$ 10,800,650	$ 154,959,338	Hoosier & IN Downs	$ 23,438,056	
2004	$ 187,154,013	$ 10,670,948	$ 176,483,065	Hoosier & IN Downs	$ 27,568,843	
2005	$ 189,742,927	$ 10,122,685	$ 179,620,242	Hoosier & IN Downs	$ 27,083,893	
2006	$ 182,216,624	$ 9,645,175	$ 172,571,449	Hoosier & IN Downs	$ 27,295,030	
2007*	$ 175,767,323	$ 9,533,907	$ 166,233,416	Hoosier & IN Downs	$ 26,565,598	
2008*	$ 163,953,976	$ 8,551,429	$ 155,402,547	Hoosier & IN Downs	$ 14,800,000	$ 30,200,926
2009	$ 147,202,135	$ 8,428,918	$ 138,773,217	Hoosier & IN Downs		$ 62,515,093
2010	$ 138,534,163	$ 8,801,448	$ 129,732,715	Hoosier & IN Downs		$ 59,428,951
2011	$ 125,478,955	$ 7,839,725	$ 117,639,230	Hoosier & IN Downs		$ 56,463,011
2012	$ 106,236,690	$ 7,602,294	$ 98,634,396	Hoosier & IN Downs		$ 53,989,738
2013	$ 94,927,002	$ 8,227,595	$ 86,699,407	Hoosier & IN Downs		$ 54,103,149
2014	$ 90,681,757	$ 7,785,820	$ 82,895,937	Hoosier & IN Downs		$ 51,906,456
2015	$ 80,833,320	$ 7,729,798	$ 73,103,522	Hoosier & IN Downs		$ 52,762,891
2016	$ 78,715,581	$ 7,482,263	$ 71,233,318	Hoosier & IN Downs		$ 53,579,486
2017	$ 73,978,302	$ 7,906,915	$ 66,071,387	Hoosier & IN Downs		$ 53,832,945
2018	$ 70,201,803	$ 6,860,354	$ 63,341,449	Hoosier & IN Downs		$ 56,594,734

Sources: 1994-2018 Indiana Horse Racing Commission Annual Reports. *1995 First riverboat revenues contributions begin December 5, 1995. *2002 A second track, Indiana Downs, opened December 6, 2002. *2007 State approves slot machine wagering at the two tracks. *2008 The racing slot revenue replaced the riverboat admission tax as of June, 2008

As the data show, total state handle marginally increased for a few years once a second track (Indiana Downs) opened, however handle peaked in 2005. Total handle declined from $189 million in 2005 to just over $70 million in 2018. Both tracks were struggling due to not only the

[99] "1995 Indiana Horse Racing Commission Annual Report," Indiana Horse Racing Commission, 1995. https://www.in.gov/hrc/files/1995AnnualReport.pdf

competition with each other but also from the expansion of gaming in the state and nearby states. As a result, the state approved slot machines at the racetracks in 2007 and by mid-year 2008 the slot machine revenue replaced the riverboat admission revenue.

Tax Revenue: The specific percentages of wagering to be retained as tax revenue to the state of Indiana are defined by Indiana Code 4-31-9 Chapter 9. Taxation and Distribution of Pari-Mutuel Revenues. The specific percentage to be retained as tax revenue for the state is 2.0 percent for on-track wagering (live and simulcast) and 2.5 percent for off-track wagering (regardless of origin).

The first $150,000 of revenue generated from the above mechanism is earmarked by Code to fund the veterinary school research account that is administered by the racing commission. The balance is to be deposited into the build Indiana fund.

Code also specifies that $0.20 be collected for each paid admission to the racetrack or off-track wagering facility and the proceeds be distributed as following:

- 50 percent in equal portions to the city, if any, the town, if any and the county in which the facility is located.
- 50 percent to the state general fund.

Off-track wagering facilities are also required to forward to the auditor of the state 0.5 percent of the total amount of all wagers, 50 percent of which is deposited in the livestock industry promotion and development fund, with the remaining 50 percent distributed to the state fair commission for use in any activity that the commission is authorized to carry out.

Cost of Regulation: The funding for the Indiana Horse Racing Commission is entitled the "Indiana Horse Racing Commission Operating Fund." The fund consists of appropriations made by the Indiana General Assembly based on an annual budget request made by the Commission.

The following table and chart illustrate the relationship between the cost of regulation and revenues generated by the pari-mutuel taxes collected via the mechanism described in the previous section:

Figure 68: Indiana Horse Racing Commission expenditures and state pari-mutuel tax, 1994 – 2018

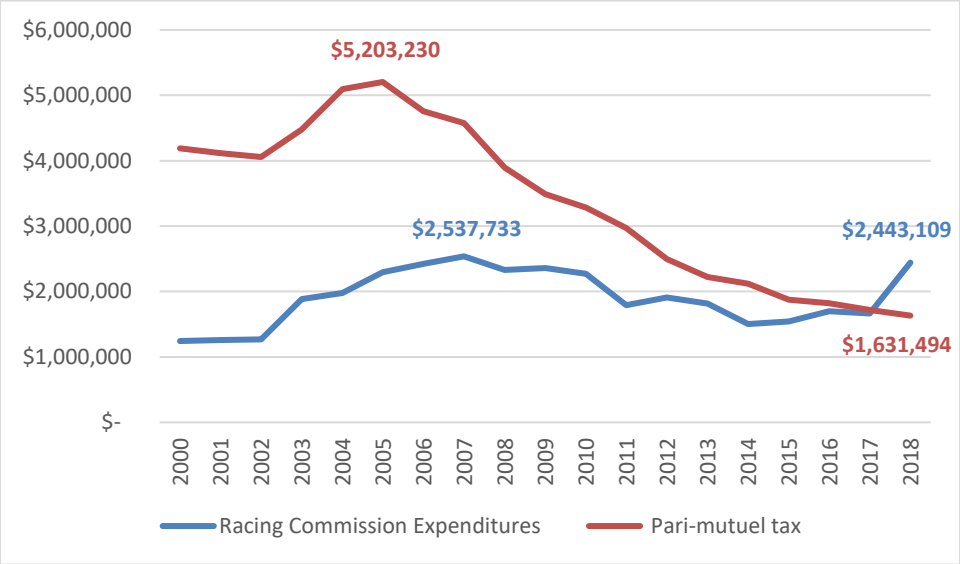
Year	Racing Commission Expenditures	Pari-mutuel tax	Year	Racing Commission Expenditures	Pari-mutuel tax
1994	n/a	$ 403,528	2007	$ 2,537,733	$ 4,575,252
1995	$ 1,161,913	$ 2,629,308	2008	$ 2,331,782	$ 3,893,196
1996	$ 1,105,660	$ 3,528,988	2009	$ 2,359,716	$ 3,487,168
1997	$ 1,388,466	$ 4,048,176	2010	$ 2,271,119	$ 3,285,404
1998	$ 1,118,850	$ 4,096,088	2011	$ 1,789,564	$ 2,969,580
1999	$ 1,152,832	$ 4,273,460	2012	$ 1,911,276	$ 2,495,585
2000	$ 1,242,957	$ 4,190,658	2013	$ 1,814,590	$ 2,223,543
2001	$ 1,256,866	$ 4,116,927	2014	$ 1,502,372	$ 2,120,694
2002	$ 1,270,208	$ 4,054,708	2015	$ 1,539,777	$ 1,872,348
2003	$ 1,882,312	$ 4,479,193	2016	$ 1,697,481	$ 1,820,890
2004	$ 1,979,078	$ 5,092,162	2017	$ 1,666,030	$ 1,715,693
2005	$ 2,294,284	$ 5,203,230	2018	$ 2,443,109	$ 1,631,494
2006	$ 2,424,307	$ 4,753,939			

Sources: 1994-2018 Indiana Horse Racing Commission Annual Reports

Because tax revenues are based on percentages of wagers, they followed the wagering trend. Revenues, like handle, peaked in 2005 at $5.2 million and have declined to $1.6 million in 2018.

The chart below illustrates the trend of declining pari-mutuel tax and the fact that the cost of regulation in Indiana now exceeds the total pari-mutuel tax:

Figure 69: Indiana regulatory expenditures and pari-mutuel tax, 2000 – 2018



Sources: 2000-2018 Indiana Horse Racing Commission Annual Reports

Economic Impact: Racing and breeding activities were stimulated from the slot revenues added to the purses and breed development funds. As can be seen from the numbers of mares bred and registered foals pre- and post-slot machines:

Figure 70: Indiana thoroughbred breeding data, selected two-year comparisons, 1998 – 2018

Year	Mares Bred	Registered Foals
1998	419	311
1999	587	467
2010	1,154	739
2011	1,087	771
2017	589	456
2018	547	n/a

Source: 2019 Indiana Fact Book, The Jockey Club

After the state permitted slots at the racetrack, the race purses and breeders' awards greatly increased, which led to more in-state breeding. However, as competition from other states offering similarly lucrative programs increased, Thoroughbred breeding returned to levels seen before the slot revenue incentives.

The state revenues and economic impact rose as the funding from slots added to the horse expenditures and the breeding industry. Wagering revenues have declined since the latest economic impact studies were conducted, and so has Thoroughbred breeding, and therefore its overall impact in Indiana.

Michigan: Pinnacle Race Course and Michigan Horse Racing

Wagering Trends: The Michigan horse racing industry relies only on pari-mutuel gaming revenue and does not receive revenue from alternative gaming, nor are the tracks permitted to offer other forms of gaming at the tracks.

The most recent racetrack built in Michigan was Pinnacle Race Course, which opened 2008 and closed in 2010. Pinnacle Race Course, perhaps the only horse racetrack built in the United States in the last 15 years as just a racetrack without HHR machines or other gaming revenue, was a failure.

"(T)he Pinnacle track was a celebrated economic development project for Wayne County, which invested $26.6 million in sewer and other infrastructure improvements to get the Thoroughbred track up and running. The Wayne County Land Bank also sold the entire 320-acre property to (Jerry) Campbell and other racetrack investors for $1.

In exchange for the $1 deal, the track's corporation promised to create or retain 1,100 construction jobs and 1,200 full-time permanent jobs or suffer financial penalties based on the estimated market value of the land, at the time $8.6 million. … The Pinnacle track struggled financially almost immediately upon opening and fell behind on property taxes. Financial records

show the track lost $2.5 million in 2009 and $4.8 million in 2010. Efforts to revive the track by adding slot machines failed."[100]

In 2012, four racetracks remained in Michigan (Hazel Park Raceway, Mount Pleasant Meadows, Northville Downs and Sports Creek). The four tracks combined held 167 days of live racing and "due to industry trends and a sluggish economy, recent years have shown a decrease in wagering leading to lower state revenues, purses and racetrack profits."[101]

Figure 71: Michigan racing data, 2012 – 2018

Year	Live Race Days	Total State Handle
2012	167	$ 138,181,284
2013	150	$ 126,913,242
2014	69	$ 116,783,802
2015	101	$ 106,176,230
2016	97	$ 103,265,519
2017	100	$ 96,029,074
2018	59	$ 69,604,370

Sources: Michigan Gaming Control Board Annual Reports 2012-2018

Michigan horse racing has experienced a 19-year downward trend in wagering. In 2014 there was no live racing at Mount Pleasant Meadows, and the track surrendered its live race meet license early that year. At the beginning of the year in 2015, Sports Creek Raceway relinquished its racing license and simulcast permits. On April 5, 2018, Hazel Park closed abruptly and also relinquished its racing licenses.

Northville Downs was the one track that remained open in 2019. There was a proposal to develop the property of that track for commercial and residential use, however the plan was withdrawn over concerns expressed by local residents.[102] Race dates are allotted for Northville Downs for 2020, but the long-term future of the track is questionable.

Tax Revenue: Michigan represents an anomaly of sorts in that there is no tax revenue at all derived from on-track wagering on live races in Michigan. Additionally, the Michigan legislature took the unusual step of adding language stating the intent of eliminating the tax revenue from live racing. This excerpt is from the Michigan Horse Racing Law of 1995:

[100] JC Reindl, "Demolition begins at failed Wayne Co. horse track," *Detroit Free Press*, January 25, 2016. https://www.freep.com/story/money/business/michigan/2016/01/25/demolition-begins-wayne-countys-failed-horse-track/79303398/

[101] "Horse Racing Annual Report to the Governor," 2012. Michigan Gaming Control Board. https://www.michigan.gov/documents/mgcb/Horse_Racing_2012_Annual_Report__417496_7.pdf

[102] "$200 Million Northville Downs Project Dead After Residents' Pushback," Associated Newspapers, September 17, 2019, *The Plymouth Voice*. https://plymouthvoice.com/200-million-northville-downs-project-dead-after-residents-pushback

431.322 License fee and tax.

(3) By eliminating the pari-mutuel wagering tax on live racing programs and altering the calculation of the tax on simulcast horse racing, it is not the intent of the legislature to diminish the funding and appropriations for the Michigan agriculture equine industry development fund and related programs described in section 20. The pari-mutuel tax alteration effected by this section is intended to generally allow for the improvement of the pari-mutuel horse racing and breeding industry in this state by increasing purses at licensed race meetings and making additional pari-mutuel revenues available for capital improvements at licensed racetracks in this state.

Tax revenues in Michigan are instead derived from two sources under this law:

- 3.5 percent of money wagered on interstate and intertrack simulcast races conducted at the holder's licensed race meetings, and;
- 1 percent of wagers processed through licensed third-party facilitators.

Third-party facilitators are defined by the law as persons who have contracts with race meeting licensees to facilitate wagering on live and simulcast racing. This is language used to allow the use of advanced deposit wagering within the State of Michigan. Licensees must be approved by the Michigan Racing Commission and have valid agreements with both the licensed racetrack and relevant horsemen's organization.

The 3.5 percent collection is distributed to the office of the Michigan Gaming Control Board, which houses the office responsible for the regulation of horse racing in the state. The revenue over time is shown in the table below:

Figure 72: Michigan pari-mutuel tax revenue, 2012 – 2018

Year	Mount Pleasant Meadows	Hazel Park Raceway	Northville Downs	Sports Creek Raceway	Total Pari-Mutuel Tax
2012	$ 50,363	$ 2,199,990	$ 1,777,640	$ 565,307	$ 4,593,300
2013	$ 45,024	$ 2,008,317	$ 1,653,021	$ 537,519	$ 4,243,881
2014	$ 2,942	$ 1,982,772	$ 1,404,521	$ 535,392	$ 3,925,627
2015	$ -	$ 1,981,164	$ 1,575,585	$ -	$ 3,556,749
2016	$ -	$ 1,961,174	$ 1,503,477	$ -	$ 3,464,651
2017	$ -	$ 1,808,163	$ 1,394,543	$ -	$ 3,202,706
2018	$ -	$ 419,352	$ 1,938,205	$ -	$ 2,357,557

Sources: Michigan Gaming Control Board Annual Reports 2012-2018

As can be seen, much like the overall wagering trend in Michigan, the tax revenue has steadily decreased over the last 19 years as tracks have closed and thus eliminated locations for patrons to wager on simulcast races.

Cost of Regulation: As mentioned in the section above, the regulation for pari-mutuel wagering is funded from a 3.5 percent tax on simulcast wagering. The following table illustrates the relationship between the tax revenues collected and the annual expenditures of the Commission.

Figure 73: Michigan Gaming Control Board racing revenues and expenditures, 2012 - 2018

Year	Revenues*	Expenditures*
2012	$ 4,954,960	$ 1,529,803
2013	$ 4,586,438	$ 1,873,032
2014	$ 4,249,081	$ 1,347,439
2015	$ 3,858,838	$ 1,514,734
2016	$ 3,856,575	$ 1,672,276
2017	$ 3,511,426	$ 1,823,424
2018	$ 2,654,225	$ 1,369,464

Sources: Michigan Gaming Control Board Annual Reports 2012-2018. *Revenues include simulcast wagering tax, occupational license fees, fines collected, a portion of the uncashed winning tickets and miscellaneous revenue. Expenditures are the cost of regulating the racing in the state.

Like what was observed in Indiana, revenues from horse racing have declined while the cost of regulation has remained somewhat constant during the same period of time. If the trend in Michigan continues, the cost of regulation will exceed the revenue produced within the next few years.

Overall Economic Impact: The overall wagering trends and the significant decrease in racing opportunities have had a negative effect on breeding within the state. The average number of Thoroughbred mares bred in the state from 2000 to 2009 was 476, with a peak of 587 in 2004. The average from 2010 to 2019 dropped to 110, with only 52 mares being reported bred in 2019. Similarly, the number of active stallions dropped from a peak of 77 in 2001 to only 10 in 2019.[103]

Texas: Retama Park

Wagering Trends: Retama Park was built about 20 minutes from downtown San Antonio and opened for pari-mutuel racing in 1995. The metropolitan population of San Antonio is almost identical to that of Charlotte's metropolitan area.

The track has struggled financially from the start, and at times has threatened to cease operations. In the first year of operation, payroll for its 924 employees (excluding concessions) was about $5.5 million. Retama Park officials requested permission from the Texas Racing Commission in November of 1995 to cancel the last four days of live racing due to cash flow problems.[104]

[103] 2020 Michigan Fact Book, The Jockey Club http://www.jockeyclub.com/Default.asp?section=Resources&area=12

[104] "Texas Racing Commission 1995 Annual Report," Texas Racing Commission, 1995. http://www.txrc.texas.gov/agency/reports/AnnualRpt/AnnualReport1995.pdf

As a result of wagering not meeting expectations, in the second year of operation there were 565 employees (excluding concessions), payroll was reduced to $3.6 million, and live race days were reduced from 120 to 88.[105]

Figure 74 below shows the historical wagering trends for Texas as a whole and with a breakout for the estimated total from Retama Park.

Figure 74: Texas state pari-mutuel data and Retama Park data, 1995 – 2018

	Texas State Totals		Retama Park	
Year	# Tracks	Total State Handle	Total Retama Handle	Retama % of Total State Handle
1995	9	$ 521,495,066	$ 111,655,090	21.4%
1996	8	$ 507,271,245	$ 110,252,655	21.7%
1997	7	$ 581,793,114	$ 128,823,157	22.1%
1998	7	$ 620,575,629	$ 132,273,229	21.3%
1999	7	$ 624,326,312	$ 142,355,371	22.8%
2012	8	$ 321,407,444	$ 67,319,086	20.9%
2013	8	$ 315,731,237	$ 64,140,759	20.3%
2014	8	$ 325,379,771	$ 64,443,334	19.8%
2015	7	$ 317,052,972	$ 61,128,038	19.3%
2016	7	$ 302,781,730	n/a	20.1% (est.)
2017	7	$ 286,877,387	n/a	20.1% (est.)
2018	7	$ 285,257,726	n/a	20.1% (est.)

Sources: Texas Racing Commission Annual Reports 1995-2018. *Note:* In the Texas Racing Commission annual reports only the statewide pari-mutuel tax was reported in aggregate and not by each racetrack. Because most of the pari-mutuel tax is based on handle, we estimated the pari-mutuel tax generated from the Retama Park operations based on Retama Park's percentage of the statewide handle. After 2015 the annual reports stopped reporting each track's individual handle so for the years 2016-2018 as an estimate of Retama Park's percentage of total Texas handle we used the average percentage of the four prior years of Retama Park's handle to total handle.

In more recent years, members of the pari-mutuel industry have made several efforts to legalize the historical racing machines (HHR) to provide additional revenue for the tracks that are struggling. Those efforts failed after a number of rulings and appeals.[106]

Tax Revenues: The specific percentage to be retained as tax revenue for the state as established by Texas Code Title 13. Sports, Amusements, and Entertainment, Subtitle A-1. Texas Racing Act, Chapter 2028. Pari-mutuel Pools, Purses, and Fees, Subchapter A. Commission Oversight of Pari-mutuel Racing Funds establishes the following criteria:

[105] "Texas Racing Commission 1996 Annual Report," Texas Racing Commission, 1996. http://www.txrc.texas.gov/agency/reports/AnnualRpt/AnnualReport1996.pdf

[106] "Texas Racing Commission 2015 Annual Report," Texas Racing Commission, 2015. http://www.txrc.texas.gov/agency/reports/AnnualRpt/AnnualReport2015.pdf

Figure 75: Texas pari-mutuel tax rates

For wagering on-track on live racing; horse and greyhound	
Total Amount Wagered, Calendar Year	**Tax Rate**
> $100 million and <$200 million	1.00%
>$200 million and <$300 million	2.00%
>$300 million and <$400 million	3.00%
>$400 million and <$500 million	4.00%
>$500 million	5.00%
Simulcast Wagering	**Tax Rate**
Horse simulcast at horse track	1.00%
Horse simulcast at Greyhound track	1.25%

Source: Texas Racing Act

Like the pari-mutuel handle decline, the pari-mutuel tax generated from wagering currently at Retama Park is only one-third to one-fourth what it was in the first few years of operation.

Figure 76: Texas pari-mutuel tax and estimates for Retama Park, 1995 – 2018

Year	State Tax - All Texas Tracks	Est. State Tax from Retama
1995	$7,386,299	$1,581,450
1996	$6,285,622	$1,366,146
1997	$6,815,152	$1,509,041
1998	$9,353,898	$1,993,746
1999	$4,676,860	$1,066,391
2012	$2,959,439	$619,857
2013	$2,927,816	$594,785
2014	$3,046,432	$603,363
2015	$2,989,837	$576,443
2016	$2,913,572	$585,233
2017	$2,756,912	$553,765
2018	$2,769,132	$556,220

Source: Texas Racing Commission Annual Reports. Estimates for Retama Park's Tax generated are based on a ratio of Retama Park's handle to total handle in Texas.

Cost of Regulation: The commission deposits the money it collects via the mechanism discussed above in the State Treasury to the credit of a special fund known as the Texas Racing Commission fund. The Texas Racing Commission fund may be appropriated only for the administration and enforcement of the Texas Racing Act. Any unappropriated money exceeding $750,000 that remains in the fund at the close of each fiscal biennium is transferred to the General Revenue Fund and can be appropriated for any legal purpose. The legislature also can appropriate money from the General Revenue Fund for the administration and enforcement of

the Texas Racing Act. If general revenue funds are appropriated, they must be reimbursed not later than one year after the date on which the general revenue funds are appropriated, with 6.75 percent interest.

The legislative appropriations request made by the Texas Racing Commission for a five-year period is shown in the following table:

Figure 77: Texas Racing Commission fund appropriations, 2014 – 2018

Year	Texas Bred Incentive Program	Commission Operations	Supplemental Appropriations	Total Appropriation
FY 2014	$4,125,000	$5,461,680	$635,637	$8,951,043
FY 2015	$4,125,000	$5,461,680	$635,637	$8,951,043
FY 2016	$3,475,000	$4,206,200	$635,637	$8,316,837
FY 2017	$3,475,000	$4,247,747	$635,637	$8,358,384
FY 2018	$3,325,343	$3,814,281	$0	$7,139,624

Source: Texas Racing Commission Internal Audit Plan

As can be seen from the table above, the Texas Breed Incentive Program funding has declined by 19 percent from FY 2014 to FY 2018 and the budget for Racing Commission operations has declined by 30 percent over the same period.

Economic Impact: In a letter that is part of the 2018 Texas Racing Commission Annual Report, dated January 1, 2019 from Chairman John Steen III to Governor Greg Abbott, Steen succinctly outlines the difficulty a standalone pari-mutuel industry currently faces given the competitive environment. According to Steen, the wagering in Texas has declined approximately 55 percent from 2000 to 2018. Reasons cited by the letter included surrounding states offering alternative gaming and account wagering and Texas's lack of OTBs and other permissible forms of wagering. This has made it difficult, according to the letter, to attract horses, as horsemen are attracted to larger purses elsewhere, and it also has led to a declining foal crop in Texas. In addition, he further explains, the Texas Racing Commission is challenged with the fact that funding for the regulatory body comes from licensing of participants and the racetracks. According to Chairman Steen, it has reached a critical point where commission funding may be difficult moving forward.[107]

In 2019, in order to help the struggling Texas racing industry, Governor Abbott signed into law legislation that will divert sales taxes from horse feed, tack and other horse-related products and services from the general fund to fund purses and breed incentives. There is a cap of $25 million for this purse/breed incentive fund. Also signed into law was a bill that diverts the 1

[107] "Texas Racing Commission 2018 Annual Report," Texas Racing Commission, p. 2-3. 2018. http://www.txrc.texas.gov/agency/reports/AnnualRpt/AnnualReport2018.pdf

percent simulcast tax from the general fund to the Texas Racing Commission to fund regulation and restructure the racetrack licensing fees that previously funded the Commission.[108]

Virginia: Colonial Downs

Wagering Trends: In Virginia, Title 59, Chapter 29, The Racing Act, became effective on January 1, 1989. Colonial Downs racetrack was built outside Richmond in New Kent, VA, and opened in 1997 as the state's first pari-mutuel racetrack. A maximum of ten OTBs were also permitted in Virginia under the Act. The year prior to Colonial's opening, off-track wagering was permitted as a means to generate income and purse funds for the inaugural year of live racing. More off-track wagering sites (OTBs) were opened over the next few years after Colonial began live racing. The historical distribution of total handle and account wagering handle is shown in the following table:

Figure 78: Virginia pari-mutuel handle, 1996 – 2018

Year	Total Handle (Track & OTBs)	Account Wagering Handle	Year	Total Handle (Track & OTBs)	Account Wagering Handle
1996	$36,952,607		2007	$167,684,686	$33,206,726
1997	$95,094,161		2008	$149,629,200	$47,303,439
1998	$120,717,190		2009	$122,461,456	$49,850,493
1999	$121,324,249		2010	$105,505,800	$53,392,088
2000	$121,754,800		2011	$97,737,893	$62,646,844
2001	$123,879,396		2012	$91,927,194	$69,233,853
2002	$124,064,569		2013	$86,220,535	$73,205,095
2003	$130,382,875		2014	$21,198,321	$93,858,388
2004	$145,394,480	$1,287,541	2015	$291,174	$79,478,623
2005	$151,758,202	$12,691,398	2016	$2,726,164	$76,725,493
2006	$164,208,077	$28,300,972	2017	$20,803,619	$81,076,535
			2018	$32,681,651	$83,958,599

Sources: Virginia Racing Commission Annual Reports

As can be seen, handle grew reasonably well for the first decade. In 2004, account wagering was legalized in Virginia, and wagering there followed the national trend.[109] From 2007 through 2014 wagering at the track and OTBs steadily declined as more wagering shifted to account wagering. By 2013, 46 percent of all wagering was done through account wagering platforms, and in 2014 the track ceased operations. As one news outlet reported, "New Kent officials warned county taxes might be raised to off-set the economic impact of Colonial Downs

[108] "Texas Horse Racing To Get Purse Boost From New Law Diverting Sales Tax On Horse Products," *The Paulick Report*, June 17, 2019. https://www.paulickreport.com/news/the-biz/texas-horse-racing-to-get-purse-boost-from-new-law/

[109] "2006 Annual Report," Virginia Racing Commission, 2006. http://vrc.virginia.gov/annualreports.shtml

[109] Ibid.

closings its doors. The operators of Virginia's only horse racing track walked out of Wednesday's Virginia Racing Commission in Richmond and said the track would close on November 1."[110]

What happened in Virginia from 2007 until the track closure in 2014 mirrored the national trend, as much less wagering occurred on-track or at bricks and mortar facilities and shifted to account wagering. As a standalone racetrack with OTBs and account wagering, the operations failed.

Tax Revenue: The specific percentages of wagering to be retained as tax revenue to the Commonwealth are specified by the Code of Virginia; Title 59.1. Trade and Commerce; Chapter 29. Horse Racing and Pari-Mutuel Wagering; § 59.1-392. Percentage retained; tax. The retainage from wagering is always determined overall by the type of wager, with Win, Place or Show wagering (sometimes referred to as "straight wagers") having a lower retainage than multi-horse or multi-race wagers (sometimes referred to as "exotic wagers").

Figure 79: Virginia pari-mutuel tax rates

For wagers that occur on-track on races at Virginia racetracks	
Win Place and Show Wagers	**Multi-horse or Multi-race Wagers**
1.00% as a license tax to the Commonwealth	2.25% as a license tax to the Commonwealth
For wagers that occur at off-track in Virginia on races run at Virginia racetracks	
Win Place and Show Wagers	**Multi-horse or Multi-race Wagers**
0.75% as a license tax to the Commonwealth	2.75% as a license tax to the Commonwealth
For wagers that occur on-track on simulcast horse racing transmitted from jurisdictions outside Virginia	
Win Place and Show Wagers	**Multi-horse or Multi-race Wagers**
0.75% as a license tax to the Commonwealth	1.75% as a license tax to the Commonwealth
For wagers that occur at off-track wagering establishment in Virginia on simulcast horse racing transmitted from jurisdictions outside Virginia	
Win Place and Show Wagers	**Multi-horse or Multi-race Wagers**
0.75% as a license tax to the Commonwealth	2.75% as a license tax to the Commonwealth

Source: Code of Virginia

The amount of tax revenue to the state mirrored the declining handle at the track and OTBs, because revenue and wagering are inextricably linked. At the racing peak in 2007, the Commonwealth tax revenue was almost $3 million with an additional $1.4 million in tax revenue for the localities.

In 2015, with the passage of HB1826, the Code was amended to increase the amount of tax revenue from advanced deposit wagering to 1.5 percent of all wagers made through ADW as a license tax to the Commonwealth. This was done due to the increase of wagering via ADW

[110] Joe St. George and Scott Wise, "Colonial Downs to close after track operators walk out of meeting," WTVR.com, October 15, 2014. https://wtvr.com/2014/10/15/colonial-downs-vote/

providers as discussed above and due to the closure of Colonial Downs in an attempt to offset the loss of revenue.

Additionally, as discussed in the section entitled "Recent Developments in Nearby States," the Commonwealth of Virginia, in 2018, approved the installation of historical horse racing machines at the racetrack and off-track wagering facilities. For the wagers made through these HHR machines, there will be a 0.75 percent license tax paid to the Commonwealth.

Cost of Regulation: All revenues received by the Commission go to a special fund known as the State Racing Operations Fund. The Appropriations Act requires the Commission to transfer any funds in excess of the Commission's operating expenses to the General Fund of the Commonwealth. However, the Appropriations Act contains language allowing the Commission to carry forward a portion of its unspent appropriation related to the promotion and marketing, sustenance and growth of the Virginia horse industry as long as it makes its required transfer to the General Fund, though this requirement was suspended in 2015 and 2016 due to the closure of Colonial Downs. The following table illustrates the flow of funds from tax revenue to the overall expenditures of the Virginia Racing Commission to revenue to the General Fund.

Figure 80: Virginia Racing Commission tax revenues from racing operations, 2011 – 2017

Year	Revenues	Operations Funds	Expenses	General Fund
FY 2011	$2,023,654	$2,226,224	$1,705,404	$577,685
FY 2012	$2,110,558	$2,309,623	$1,606,288	$511,978
FY 2013	$1,952,830	$2,138,622	$1,412,336	$749,609
FY 2014	$1,488,786	$1,577,972	$1,288,448	$184,356
FY 2015	$518,499	$588,289	$832,546	$0
FY 2016	$1,106,457	$1,155,545	$659,154	$0
FY 2017	$1,396,609	$1,446,693	$689,438	$8,212

Source: Report of the Auditor of Public Accounts, Annual Audit of Virginia Racing Commission

The years provided in the table show the revenues generated, the expenditures of the Commission and revenue to the General Fund through three distinct models of operation. FY 2011 thru FY 2014 represent on-track wagering at Colonial Downs coupled with off-track wagering at satellite facilities. FY 2015 and FY 2016 are during the closure of Colonial Downs and the rise of advanced deposit wagering, and FY 2017 demonstrates the effect of the increased tax on wagers made via advanced deposit wagering.

Economic Impact: As would be expected, the economic impact to the Commonwealth of Virginia declined as the racehorse industry declined. In 1998 there were 954 Thoroughbred mares bred (1.6 percent of the national number) and 566 Thoroughbred foals registered (1.5 percent of the national crop.) In 2017 the number of mares bred was 38 (0.1 percent of the national total)

and 122 foals registered (0.5 percent of the total.)[111] The breeding industry decline, coupled with the racing decline, lessened the racing sector's contribution to the state economy. As noted in a previous section, the racing sector in 2017 contributed $110 million in direct impact and $190 million adding the indirect/induced impact. The total horse industry impact for the state in 2017 was $1.34 billion direct impact and approximately $2 billion total.

Industry Analysis and Conclusions

The horse racing industry has been challenged by increased competition, declining wagering and declining supply of horses and races. The wagering handle since 2003 has declined approximately 27 percent, the number of harness races declined 19 percent the past 10 years, and the number of Thoroughbred races declined almost 26 percent in 10 years. The number of horses that started in races has declined over 29 percent and the breeding of both Thoroughbred and Standardbred racehorses has declined. The number of Thoroughbred foals bred has declined almost 33 percent the past 10 years.

The wagering on horse races the past 20 years has changed and while race wagering is much more widely distributed by simulcasting and account wagering, the cost of distribution and the margins realized on wagers have negatively affected racetrack profits from pari-mutuel wagering. One significant impact has been the shift to account wagering and the computer assisted wagering systems, which has transferred a significant percentage of all wagers to a few account wagering providers.

Racing has faced a number of other challenges. Competition from other forms of gambling has taken business away from pari-mutuel wagering, especially with the expansion of casino-style gambling in many states. There continues to be increasing competition for wagering dollars, with the latest being the legalization of sports wagering in many states. There has also been a shift in customer preferences for their entertainment and wagering dollars. There is a learning curve for customers to understand the intricacies of horse race wagering, which is more challenging than other forms of wagering and slows the acquisition of high per capita wagering customers. Society's attitudes toward the use of animals in sport and animal welfare has changed, and recently the horse racing industry has gotten negative media due to fatal injuries to horses at several racecourses.

The four case studies examined were tracks located in similarly sized markets (comparable to markets in North Carolina) and in each case the tracks suffered through declining wagering. Two of the tracks have continued operation, but both now have revenue from alternative sources supporting the industry. Another track closed but has reopened in 2019 only because the state permitted the addition of historical horse racing machines as an additional

[111] "2019 Virginia Fact Book," The Jockey Club 2019. http://www.jockeyclub.com/Default.asp?section=Resources&area=12

form of legal pari-mutuel wagering. In the fourth case, the track was a total failure and closed in less than three years.

Estimated North Carolina Pari-Mutuel Wagering Revenue, Fiscal Receipts

To estimate revenues for a racing operation in North Carolina, Spectrum made the following assumptions:

- Pari-mutuel tax is 2 percent on all wagers. To avoid losing potential tax revenue if the trend of shifting wagers to account wagering continues, off-track, simulcasting and account wagering is taxed at one rate.
- Account wagering will be permitted in North Carolina as a means to increase wagering. Wagering at stand-alone brick-and-mortar off-track betting models in other states is declining and, in many cases, failed, which led to the closure of a number of OTBs. The only OTBs suggested would be in the form of kiosk type wagering or small areas with one pari-mutuel teller and betting terminal at appropriate venues such as restaurants or bars. That type off-track wagering would be operated by the racetrack(s) and would need racing commission approval for each location. Such a system would be similar to the off-track wagering in Arizona, which is more efficient than larger standalone facilities built as OTBs.
- An additional $100,000 to $200,000 in tax revenue may be realized from a yearly license fee for ADWs.
- Only one track initially will open in the largest metropolitan area, Charlotte. We believe if a track is opened without augmented revenues from other sources as discussed in the report, the building of a second track is unlikely. If a second track is opened (such as seen in the Indiana case study,) total handle and revenue will increase. Due to the fact that most wagering is off-track, the incremental value to total handle will not be enough to support both tracks. A second track most likely would be considered in the Raleigh-Durham-Chapel Hill market, the second-largest metropolitan area in North Carolina.
- Handle projections were based on market size and the fact that account wagering would be permitted, unlike in several of the case studies. The projections used on-track were also higher than average due to the fact that a new facility for a few years should attract better than average attendance.
- A 60-day live race meet by Year 3. If the number of live race days is too few it will be difficult to attract horse owners and trainers unless purses are extremely large. If the meet is too long it would be too costly for an operator to have any chance of success given the high cost of conducting live races. (Note: Another reasonable option for a track operator would be to run a “boutique” type race meet [such as Keeneland Race Course or Kentucky Downs] in the late fall. A short 10-day race meet would create much larger purses to attract horses. This would lower total handle and revenue projections but also greatly reduce the operational expenses. Spectrum presented the scenario that produced the greater tax revenue of the two options.)

- The percentage of handle by source was based on industry averages adjusted for the fact that North Carolina as a new market, for a few years, would have a slightly higher percentage of on-track wagering given the track would be a new facility.
- North Carolina will mirror the implementation and growth observed in the Virginia and Indiana case studies. Both were new tracks in states without pari-mutuel facilities before those tracks were built. In both cases, there was substantial growth from year one through year three as the build out of off-track wagering took time and the initial number of race days in year one was substantially less, effectively having a soft opening in year one.
- The projections for Year 3 are based on a fully implemented year-round operation of all aspects of wagering permitted: account wagering, OTBs and the 60 days of live racing. Years one through five projections are based on similar ramp-up experienced at Colonial Downs in Virginia and Hoosier Park in Indiana. Years 4 and 5 at both facilities experienced very marginal growth averaging 1.1 percent per year.

Figure 81: Performance detail for North Carolina pari-mutuel racing, years 1 – 3

	Year 1	Year 2	Year 3
Live Handle on-track	$ 3,000,000	$ 5,625,000	$ 7,500,000
Live Handle off-track (export)	$ 19,000,000	$ 49,500,000	$ 66,000,000
Total Import handle	$ 19,110,000	$ 47,775,000	$ 63,700,000
Total Handle	$ 41,110,000	$ 102,900,000	$ 137,200,000
Wagering Revenue	$ 4,111,000	$ 9,261,000	$ 12,348,000
Other Revenue (admission, parking, concessions.)	$ 1,027,750	$ 1,543,500	$ 2,058,000
Total Revenue	$ 5,138,750	$ 10,804,500	$ 14,406,000
Pari-Mutuel Tax	$ 822,200	$ 2,058,000	$ 2,744,000

Source: Spectrum Gaming Group. *Note:* Live handle on-track is wagers placed at the track on live races during the live horse race meet. Live handle off-track (export) is the sale of the live racing signal to all locations other than the racetrack running the live races. The revenue collected on export handle sold to other simulcast locations is much lower (about 4 percent of handle) than revenue from wagers made at in-state facilities. The live racetrack receives a host fee/royalty for exporting the signal. Total import handle is wagers made on other races outside of North Carolina by North Carolina customers. The track operator(s) import and pay the host fee for those races. The import handle also nets less revenue than live on-track wagers.

Based on our three-year forecast and assuming a similar buildout and growth as the tracks in Virginia and Indiana mentioned above, we have developed a five-year forecast for pari-mutuel horse racing in North Carolina.

Figure 82: Forecasted North Carolina pari-mutuel revenue and state tax receipts, years 1-5

	Year 1	Year 2	Year 3	Year 4	Year 5
Total Revenue	$ 5,138,750	$ 10,804,500	$ 14,406,000	$ 14,564,466	$ 14,724,675
Pari-Mutuel Tax	$ 822,200	$ 2,058,000	$ 2,744,000	$ 2,774,184	$ 2,804,700

Source: Spectrum Gaming Group

The wagering revenue projections are impacted by many variables such as live race dates, number of off-track wagering facilities in operation and normal business and environmental forces, however Figure 81 represents a fair estimate of the overall potential for a buildup over

three years to reach Year 3 of full operation of pari-mutuel in North Carolina once all the infrastructure is in place.

The amount of pari-mutuel tax that would be generated from pari-mutuel wagering would likely range from $0.5 million to $3.0 million, assuming the state passes on the cost of regulation to the industry and also depending on the tax structure legislated.

Conclusion

Reviewing the four case studies, the pari-mutuel tax collected barely covered the cost of regulation. The cost of regulation in recent comparable years based on the case studies ranged from $1.2 million to $2.5 million. In some cases, the cost of regulation has been passed on to the industry. The total pari-mutuel tax in those studies in the most recent five years ranged from $0.5 million from one track (Texas) to $3.5 million from two tracks (Michigan).

Any substantive value to the state economy would likely only be from the economic impact of the horse racing sector. Over the years as the racing industry has struggled, the gaming tax on wagering has steadily declined relative to the support the other agricultural economic benefits the industry injects in the state economy. The green space preserved by farms, the work force and the indirect impacts of the horse-related business are the aspects of pari-mutuel wagering that most helps a state economy.

Figure 83: Projected pari-mutuel tax and regulation costs in North Carolina

	(Millions)
Projected Cost of Regulation	$1.2 - $2.5
Projected Pari-Mutuel Tax Revenue	$0.5 - $3.0

Source: Spectrum Gaming Group

The projections in Figure 83 are based on reasonable pari-mutuel legislation permitting wagering models like most states – but not like those that have legalized the HHR machines as a form of pari-mutuel wagering. The economics of the pari-mutuel industry change significantly with the addition of the HHR machines, but they are legal in only a few states, as follows:

- Alabama: Few machines at greyhound facilities
- Arkansas: Now has few machines; they have been replaced with games of skill and casino games
- Kentucky: Machines at all tracks except Keeneland, however Keeneland shares the machines in the Lexington market at the Red Mile racetrack
- Oregon: Limited number of machines in use
- Wyoming: Machines at tracks and OTBs
- Virginia: Machines at Colonial Downs and OTBs

- Nebraska: Court cases currently reviewing their legality

Based on the national trends in horse racing and the pari-mutuel wagering market as well as the four case studies, Spectrum believes it is highly unlikely that there would be an investment in a traditional horse racing pari-mutuel model in North Carolina. We believe that without revenues from historical horse racing machines, casino-style gaming revenues or another funding source such as the tax revenue Texas allocated to support a horse racing industry, there would be no investment in the industry in North Carolina or it would struggle or could fail.

In conclusion, Spectrum does not see the likely development of a successful pari-mutuel racetrack in North Carolina without approving HHR machines as a pari-mutuel wagering alternative to wagering on traditional live racing. An alternative to HHR machines would be to support a racing industry, as other states have, by approving casino-style gaming at the racing facility or allocating other funding from gaming elsewhere or other subsidization to support the economic infrastructure of a racing industry.

F. Ilottery

The term "ilottery" refers to internet sales of lottery products via online devices such as smartphones, tablets and personal computers. Ilottery products consist of draw games, such as Powerball and Mega Millions, that can be purchased online, and digital instant games ("digital instants"), which replicate paper scratchoff games, played online. There is a convergence with respect to the consumer experience for digital instants and online slot-style games. Most ilottery states do not offer both digital instants and online slots, with Pennsylvania being the notable exception.

In December 2013, the North Carolina Education Lottery began selling draw game tickets online via its subscription service program. The subscription service program allowed players to purchase tickets for multiple drawings for a subset of its draw games Carolina Cash 5, Mega Millions and Powerball. NCEL added Lucky for Life in February 2016 to the games that players can purchase through the subscription service program. In May 2016, NCEL began selling tickets for single drawings of the four games that it offers online and rebranded the program to "Online Play." Since that time, NCEL has further effectively used all of their digital channels to market NCEL games and promotions.

NCEL's development of online services to its players is consistent with that of other cutting-edge state lotteries. Lotteries initially offered players information and loyalty programs on the lottery website, which then became available via mobile apps allowing players to connect to the lottery via their smartphone.

This section focuses on the market potential of digital instants in North Carolina if this activity were to be offered by NCEL. In Spectrum's opinion, the State of North Carolina could

implement ilottery faster than any of the five other forms of gaming analyzed in this report, as NCEL already has an online portal for lottery sales and the Lottery Act authorizes NCEL to offer the sale of digital instant games.

Existing Ilottery Market

Six states have implemented ilottery products: Georgia, Illinois, Kentucky, Michigan, New Hampshire and Pennsylvania. These six states are all in the early stages of growth, making it challenging to gauge market potential at stabilization. With the exception of Illinois, these states all offer digital instants. Of those states that offer digital instants, Michigan is most advanced in terms of market size, generating $116 million in gross gaming revenue for 2019.

Figure 84 below illustrates the GGR performance (sales minus prizes) of digital instants relative to all other lottery products. Similar to other forms of online gaming expansion, ilottery is experiencing substantial growth as it draws existing players to migrate to online as well as attracts new players that are more digitally inclined. There seems to be little cannibalization impact on existing lottery revenue, as each state lottery is experiencing overall growth. We are seeing similar trends in markets with recent expansion into internet casino gaming (see Chapter III.C of this report).

Figure 84: Ilottery GGR (except Georgia, where sales are provided), selected states, 2013 – 2019

($ Millions)	2013	2014	2015	2016	2017	2018	2019	3Y CAGR
Michigan								
Digital Instants		1	19	48	78	94	116	34%
All Other Games	2,476	2,595	2,754	3,059	3,258	3,498	3,781	7%
Georgia								
Digital Instant Sales				5	11	22	41	102%
Other Game Sales			4,195	4,551	4,518	4,576	4,735	1%
Kentucky								
Digital Instants				0	1	2	4	236%
All Other Games				984	986	1,033	1,126	5%
New Hampshire								
Digital Instants							5	NA
All Other Games		276	283	309	304	338	386	8%
Pennsylvania								
Digital Instants						20		
All Other Games						4,200	4,503	

Source: State lotteries. CAGR = compound annual growth rate. Pennsylvania did not report sales from digital instants in 2019; data are for illustrative purposes.

Georgia Lottery: "Diggi" instant games can be played online and exhibit the same characteristics as traditional instant games, including grids and game-reveal data. The games are sold at price points ranging from $0.50 to $10, with prizes up to $100,000. The Georgia Lottery currently offers 48 active games. For FY 2019, Diggi game sales were $41.1 million, an increase of $19.4 million or 89.9 percent over 2018.

Kentucky Lottery: Sales for the Kentucky Lottery's online channel overall rose from $10.3 million in FY 2018 to $26.8 million in FY 2019, a 160 percent increase. The primary driver in these

results was in the Instant Play category, which increased from $10.3 million to $17.3 million, a 68 percent gain. GGR from instant play category increased 95 percent year over year, to $4.1 million, in 2019. More than 52 Instant Play games were available to players in FY 2019 (up from 34 the previous year) and, for the first time, a game at the $20 price point was offered. A new offering included having a 50X The Cash online game at the same time a 50X The Cash scratchoff ticket was for sale at retail, providing players with a comprehensive omni-channel experience.

Michigan Lottery: The Michigan Lottery has the most mature digital instant market, having launched in 2014. From 2016-2019 GGR grew at a 34 percent compound annual growth rate ("CAGR"), and by all accounts Michigan is the most successful ilottery market. Commenting on cannibalization impacts, the Director of Public Relations for the Michigan Lottery, Jeff Holyfield, stated: "There is no indication that online games are affecting sales at our 11,000 retailers. In fact, we continue to see sales growing across all channels. There is zero indication that the online games have taken away sales from other; the indication is that it's exactly the opposite."[112] As a result of success in Michigan, additional state lotteries authorized ilottery.

New Hampshire Lottery: House Bill 517 was signed into law in June 2017 allowing the Commission "to sell lottery tickets on the Internet and by mobile applications and create certain practices to address problem gaming in such sales." Its "iLottery" was developed and launched in the first quarter of FY 2019 on the lottery's website. Electronic games called e-Instants resemble scratch tickets and are available in demo mode for free play or real-money mode to play for cash prizes. Participants can set the value of their wager from $0.02 to $30 for e-Instants, and Powerball and Mega Millions draw-based games can be purchased through ilottery for up to 52 consecutive drawings. Additional features will be phased in, including expanding the draw-based games to include Tri-State products, and contracting other third-party developers to provide a wider library of games.

Pennsylvania Lottery: In an effort to modernize its lottery, Pennsylvania legalized ilottery in 2017. This included selling lottery tickets online and online lottery games via online devices. More than 91,000 players created online accounts, and more than $332 million in prizes were paid out to ilottery winners. Upon the legalization of ilottery in Pennsylvania, seven casino operators sued the Pennsylvania Lottery seeking an injunction against the games, arguing they were illegal.[113] The suit asserted that the games would cause the casinos a significant loss of revenue due to their similarity to online and land-based casino games. The judge acknowledged that ilottery games appeared to be similar, but that was not cause to allow for an injunction. The

[112] Steve Ruddock, "Make Some Room Michigan: Two More States Legalize Online Lottery," PlayMichigan.com, November 8, 2017. https://www.playmichigan.com/two-states-legalized-online-lottery/

[113] Andrew Maykuth, "Casinos Sue PA Lottery to Stop Online Games, Claiming Unfair Competition," *Philadelphia Inquirer*, August 22, 2018. https://www.inquirer.com/philly/business/tourism_casinos/pennsylvania-casinos-parx-harrahs-sue-to-stop-lottery-online-interactive-games-20180822.html

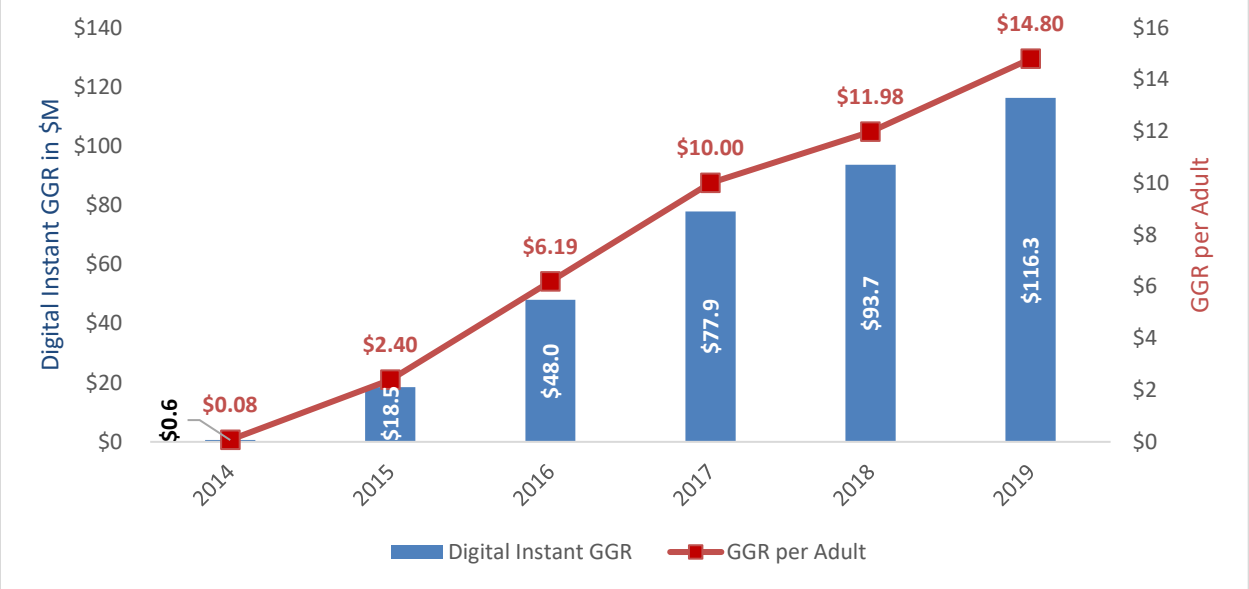
case is still pending in Pennsylvania, with a trial on the issue expected to occur in 2020. Several Pennsylvania casinos began offering internet casino gaming starting in 2019. The iLottery continues to operate in Pennsylvania.[114]

Virginia Lottery: Virginia will become the seventh state to sell lottery tickets over the internet as Governor Ralph Northam in March 2020 signed SB 922 into law. The law aims to help the lottery expand sales after a legislative study found lottery sales could drop 3.6 percent by 2024 if the state legalizes casinos.

Estimated North Carolina Digital Instant Lottery GGR

To quantify the potential GGR that could be generated if NCEL were to offer digital instants, Spectrum used Michigan's results as benchmarks. For 2019, the Michigan Lottery generated $116 million of GGR, which equates to $15 GGR per adult. Below we illustrate the growth in GGR and spend per adult in Michigan since 2014.

Figure 85: Michigan Lottery digital instant GGR and GGR per adult, 2014 – 2019



Source: Michigan Lottery, Spectrum Gaming Group

Spectrum believes that Michigan provides a good comparison to North Carolina due to similar population and income demographics. North Carolina has 8.3 million adults, only slightly more than Michigan's 7.9 million. The median household income in North Carolina is $53,855, only 2 percent less than Michigan's $56,697.[115]

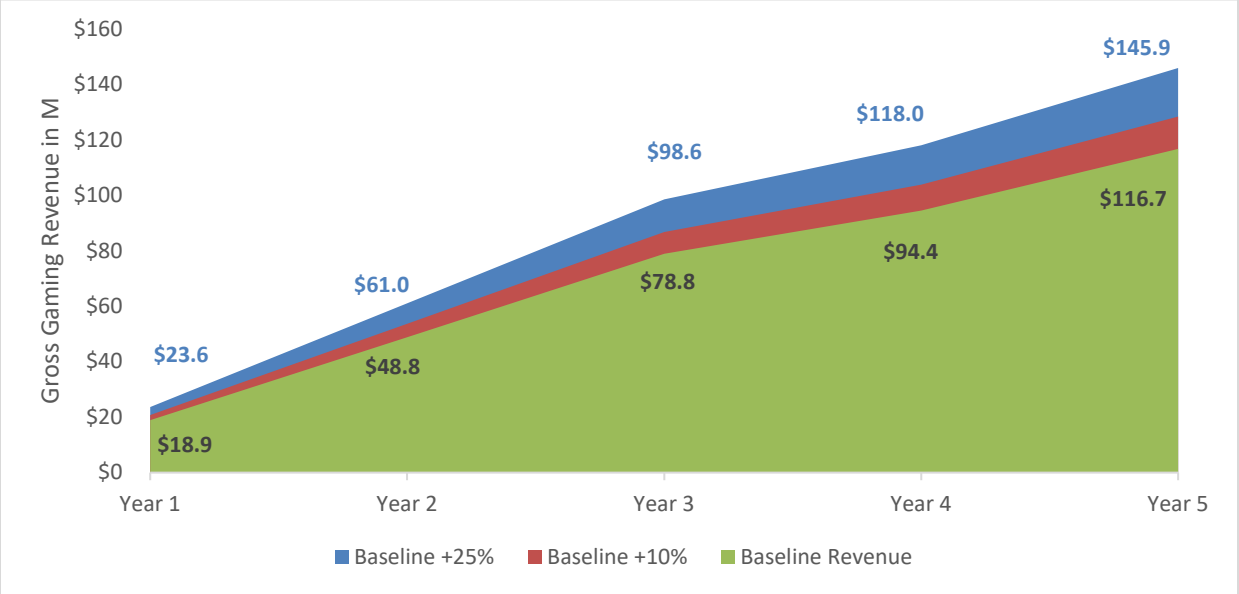
[114] Erik Gibbs, "Pennsylvania Casinos Lose Lawsuit Against PA Lottery," Calvinayre.com, July 15, 2019. https://calvinayre.com/2019/07/15/casino/pennsylvania-casinos-lose-lawsuit-against-pa-lottery/

[115] US Census Bureau.

To estimate North Carolina's projected GGR from digital instants, we used Michigan's actual results and adjusted for North Carolina's population and income. Due to the slightly lower income demographics, spend per capita for North Carolina is projected to be slightly lower. However, the higher population more than makes up for lower income. Our methodology suggests that North Carolina could in Year 5 generate slightly higher GGR than Michigan 2019 results (that state's sixth year), or $117 million, as illustrated in Figure 86 below.

However, we believe our $117 million Year 5 estimate is just a baseline. We applied an additional adjustment to account for the lack of gaming options in North Carolina relative to Michigan. Michigan hosts three major commercial casinos in downtown Detroit, with an additional 23 Native American casinos throughout the state, in addition to the state lottery. We believe the presence of other gaming options limits the GGR potential for digital instants. Under the current landscape of North Carolina, where there are only two, remotely located Native American casinos, the revenue potential for digital instants should be greater than Michigan. To account for this factor, we assumed spend per adult could be 10 percent to 25 percent higher than in Michigan, resulting in higher GGR from digital instants. The results of our analysis are illustrated in Figure 86 below – after five years of growth, digital instants could approach $150 million in GGR.

Figure 86: Forecasted North Carolina digital instant gross gaming revenue years 1-5



Source: Spectrum Gaming Group

Over the first five years, Spectrum projects NCEL digital instants could generate between $358 million and $447 million in GGR. As noted above, the State could implement ilottery faster than any of the other five forms of gaming analyzed in this report.

IV. Assessment of Gaming Regulatory Structures

In this chapter of the report, Spectrum assesses regulatory structures that may be considered for potentially expanded gaming operations in North Carolina. In this regard, while no decisions have been made concerning expanded gaming operations, we note that potential forms of new gaming opportunities may include sports betting, digital instant lottery tickets, commercial casinos, distributed gaming, pari-mutuel horse racing, and internet casino gaming. In particular, sports betting recently garnered considerable attention nationwide as a legitimate gaming opportunity and additional source of revenue. Consequently, we will provide an overview of how other states have dealt with the issue of implementing authorized sports betting with respect to their regulatory systems. Our analysis of regulatory systems is not limited, however, to the potential implementation of sports betting and extends to gaming regulatory oversight over any new forms of gaming operations that may be implemented.

On May 14, 2018, the United States Supreme Court ruled that the Professional and Amateur Sports Act ("PASPA"), a federal law that banned sports betting in most states, was unconstitutional because it infringed on the states' rights to make decisions relating to authorizing sports betting.[116] This court decision enabled states to decide whether to legalize sports betting. Last year North Carolina authorized sports betting but expressly limited it to the state's Native American casinos, eschewing at least temporarily from allowing the practice to extend to statewide retail establishments.[117] Accordingly, additional legislation would be necessary to authorize sports betting beyond the borders of these casinos.

In determining how to proceed with the regulation of sports gaming and other possible forms of new gaming operations, there are multiple options available for North Carolina:

- Establish a state gaming commission that would provide administration, oversight and enforcement of all gaming regulations in the state. This would include oversight over existing gambling operations – including the State lottery and charitable gaming – as well as any potential new forms of gaming operations, whether in the form of sports betting or some other gaming activity.
- Relying upon an already existing gaming regulatory agency, the North Carolina State Lottery Commission, to provide the necessary regulatory and oversight functions for expanded gaming operations.

  For both of the options above, the State would be relying upon a single-agency model for complete regulatory oversight over various gaming operations. This single-agency model,

[116] *Murphy v. NCAA*, 584 U.S. -- 138 S. Ct. 1461 (2018).

[117] North Carolina General Statutes, Article 37 Chapter 14-292.2(b)(5).

whether in the form of a new gaming commission or under the purview of the existing state lottery commission, is seemingly suitable for effective regulation within the context of the limited legal gaming operations that are available or will be made available in the foreseeable future for the state's patrons.

- Creating a separate and independent division of gaming enforcement to conduct the required background investigations and oversee law enforcement aspects of expanded gaming operations including sports betting, to work in tandem with NCEL. This format would be especially appealing if the State authorizes commercial casinos, which would require more intensive scrutiny over gaming operators. Conversely, without commercial casinos, the advent of sports betting or video lottery terminals by themselves may not require this additional branch of government. The single-agency model may be viewed as the more pragmatic solution. We note that Delaware employs this hybrid regulatory system, but that state has commercial gaming at various racinos and therefore requires enhanced regulatory oversight. In this regard, we note that the NCEL currently works with Alcohol Law Enforcement and the State Bureau of Investigation with respect to investigative and enforcement functions and therefore accomplishes the same objectives.
- Creating a new state gaming agency that would be entrusted solely with the regulation of sports betting, at least initially, but could then be expected to transition to the regulation of commercial casinos as well if that ever becomes a reality. This latter approach would create a dual-agency model for gaming regulation. In our judgment, this scenario appears to be cost prohibitive, given the fact that NCEL is more readily available to assume these duties and responsibilities.

We note that consideration of these latter two models is primarily a function of whether gaming operations are likely to be expanded to include commercial casino gaming operations in the foreseeable future. If that is an unrealistic scenario, the intrinsic value of these models dissipates instrumentally as the need for enhanced regulation diminishes. In this regard, no state has established a separate regulatory agency for the sole purpose of regulating sports betting or video lottery terminals; all have relied instead upon the existing regulatory system.

In evaluating these options for North Carolina, it is important to note that states are generally relying upon their already established state gaming commissions, lotteries, or racing commissions to oversee sports betting as an extension of existing activities, rather than creating entirely new gaming commissions, whether these commissions are empowered to oversee all forms of gaming or are established as separate and distinct governmental agencies dedicated to the regulation of sports betting. The same rationale applies for video lottery terminals. This precedent should be a significant factor in determining the appropriate regulatory structure for expanded gaming operations in the state.

State gaming commissions overseeing casino gaming operations and other forms of gaming operations have traditionally been constituted as governmental agencies performing quasi-judicial functions. Notably, with rare exceptions, these regulatory agencies are not

privately operated. This is true for state lotteries. Government-operated lotteries such as NCEL are the most prevalent organizational model for lottery operations. Although they are State agencies, the lotteries operate largely outside the realm of State government and function as quasi-independent enterprises. One notable exception to the exclusion of privatization involves New Jersey. We note that in 2015, former Governor Chris Christie privatized the sales and marketing operations of the state's lottery through a government contract with a private company, Northstar New Jersey Lottery Group. Another exception is Texas, which contracted its lottery operations in 1992 to a private company.

Spectrum notes that whatever regulatory system is implemented, the regulatory agency needs to have broad discretionary authority to ensure that sports betting operations are conducted in a transparent, efficient and effective manner. The regulatory agency entrusted with the oversight of sports betting must be able to effectively implement and administer comprehensive licensing standards and procedures and ensure that sports betting operations are conducted fairly with unquestionable transparency and integrity. The same time-honored principles that have been applied to the regulation of casino gaming operations are applicable to sports betting.

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 that includes robust background and suitability investigations 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.

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. In those jurisdictions where sports betting has been authorized, the entities operating sports betting are required to be licensed to the highest standards. As a result, the scope of a sports betting license investigation may be equivalent in some cases to a casino license investigation. 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. 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 the sports betting operation are generally required to be licensed.[118] The DC Lottery, which will regulate the implementation and administration of sports betting in Washington, DC, has adopted this approach for comprehensive licensing standards.

Findings of suitability are based on established criteria: good character, honesty and integrity, financial stability, integrity and responsibility. Notably, it is the affirmative obligation of all applicants to demonstrate their qualifications by clear and convincing evidence.

To date, the states that have recently implemented sports betting have utilized their respective gaming regulatory agencies to oversee the expansion of gaming operations for sports betting. Accordingly, where gaming commissions already exist in certain states to oversee casino gaming, such as Mississippi, New Jersey and Pennsylvania, it was a logical extension to entrust those firmly established casino gaming regulatory agencies with these additional oversight functions and responsibilities. Likewise, for those states such as Delaware, Rhode Island and West Virginia where established lotteries have regulated gaming activities – including casino gaming operations where authorized – the lotteries have been given increased responsibility for regulating sports betting operations.

In Washington, DC, where there are no authorized casinos, the DC Lottery was given the responsibility for regulating sports betting rather than creating a new gaming commission to do so. The circumstances that confronted the District of Columbia are most akin to the situation facing North Carolina in the event the State decides to implement sports betting, in that in both instances there is an existing lottery commission but no casinos. Notably, in no instance has a newly formed gaming commission been established to undertake this responsibility since the law changed to allow for individual states to offer sports betting. The same rationale would apply in the event the State implements another new form of gaming operation such as video lottery terminals and declines to authorize state-wide sports betting. This is particularly true in this state, where there is exclusively retailer-focused gaming activity.

In Spectrum's judgment, this makes perfect sense because the existing gaming regulatory agencies are better suited to oversee the implementation of sports betting expeditiously. It is axiomatic that an existing regulatory agency with an experienced internal staff and well-established infrastructure will be better positioned to regulate a new form of gaming activity than a newly created agency, which will have to cope with startup costs, staffing and administrative expenses. The experience and institutional knowledge of an existing regulatory agency with respect to the proper conduct of gaming operations is a significant factor that cannot be overstated. The existing agencies are able to implement new forms of gaming operations such as sports betting expeditiously and efficiently and with the necessary integrity. Where necessary, these agencies add additional staff to

[118] See e.g. New Jersey, N.J.S.A. 5:12A-11 and 12; W.Va. Code $29-22D (West Virginia Lottery Sports Wagering Act.)

enable the agency to assume these added responsibilities. That occurred with the DC Lottery and would be expected to happen with NCEL.

States that have both state-regulated casinos and lotteries have usually decided to use the existing gaming commission instead of the lottery for regulation of sports betting. Examples include Arkansas, Indiana, Iowa, Mississippi, Nevada, New Jersey, New York, Pennsylvania, Colorado, Illinois, and Michigan. In our experience, as a general rule, gaming commissions that regulate casino gaming will adhere to stricter licensing standards than their lottery counterparts that are not involved in casino gaming regulation. The decision to utilize the gaming commissions rather than the lotteries for sports betting oversight is a clear recognition that sports betting must be strictly regulated in the same fashion as casino gaming. However, as heretofore noted, because North Carolina is retailer-focused in its gaming operations, a separate gaming commission with more stringent licensing standards may not be as essential.

A possible exception to this general rule of thumb exists in Ohio. That state is currently examining whether to implement sports betting and is wrestling with the decision over which current regulatory agency should assume control over this new form of gaming operation: the state Lottery Commission or the state Casino Control Commission. There are two separate legislative proposals being considered. A Senate bill would entrust the Casino Control Commission, which regulates the four casinos in Ohio, with regulatory oversight over sports betting; a House bill would empower the Lottery Commission, which regulates the lottery and racinos, to exercise regulatory control over this new form of gaming.[119]

Five states and the District of Columbia currently offer sports betting regulated by their lotteries, although the gaming activity is not yet operational in the District of Columbia. The states are Delaware, New Hampshire, Oregon, Rhode Island and West Virginia. These states and the District of Columbia do not have a separate gaming commission. Delaware, Rhode Island and West Virginia offer sports betting through their respective lottery-regulated casinos. In addition, two states that have authorized sports betting but have not yet implemented the gaming activity are prepared to empower the state lotteries to assume regulatory oversight responsibilities: Montana and Tennessee. It also appears that if Virginia authorizes sports betting it will be under the purview of its state lottery. We further note that in Canada, lotteries regulate sports betting in every province. Thus, based on the experience of these myriad states, it would not be unusual for NCEL to be entrusted with these additional regulatory responsibilities in the event new forms of gaming operations are authorized. The successful precedent in multiple jurisdictions clearly demonstrates the viability of this practice.

NCEL was established in 2006. It has a proven record of operating with responsibility and

[119] Kegler, Brown, Hill + Ritter "Dueling Sports Betting Bills Introduced," June 17, 2019. https://ohiogaming.keglerbrown.com/?p=2547

integrity and providing excellent service to its patrons. There are nine members on the Lottery Commission. They serve in a part-time capacity and are required to conduct public meetings a minimum of four times a year. They have five-year terms. Five members are appointed by the Governor, two members are appointed by the General Assembly (by the Speaker of the House of Representatives) and two members are appointed by the General Assembly (by the President Pro Tempore of the Senate). They receive no compensation, apart from per diem payments and reasonable travel expenses for attending the public meetings.

There are certain specified experiential requirements for the commissioners. At least one of the members appointed by the Governor is required to have a minimum of five years' law enforcement experience. One of the members appointed from the Senate is required to be a certified public accountant and one of the members appointed from the House of Representatives is required to have retail sales experience.

Many states impose specific experiential requirements to be lottery commissioners. In the event that expanded gaming operations come to fruition, this is an area that may be examined to improve the effectiveness of regulatory oversight as the scope increases. In this regard, we believe that a legal, law enforcement or accounting background would be invaluable for commissioners in the performance of their duties, especially for a chairman. The number of commissioners is another area that warrants evaluation. Most lottery commissions have fewer members, generally ranging from five to seven persons. Spectrum believes that the NCEL composition may be reduced to five members, including a chairman, a member with a legal background, a member with law enforcement experience, a member with accounting experience, and one public member. In comparison with other lottery commissions, the present NCEL composition of nine members may be perceived as too unwieldly and not organized to function at maximum efficiency. If a reduction of this magnitude is viewed unfavorably, we recommend a seven-member composition as a possible option to be considered. This new complement would give the agency a wide range of experience to deal with important regulatory matters as they arise with expanded gaming operations. In addition, we recommend requiring bipartisan membership, with no more than three members from a single political party (or four if the number is decreased to seven members). These modifications would foster public confidence and trust in the regulatory process.

We evaluated whether NCEL is capable of providing the necessary regulatory oversight over sports betting and other potential forms of new gaming operations within the framework of the aforementioned principles of gaming regulation. Spectrum spoke with various NCEL staff with respect to the agency's operations and its capability to assume responsibility for expanded gaming operations.[120] In addition, we reviewed documentation provided by NCEL relating to its operational structure. We also spoke with Christopher Scott Poole, Alcohol Law Enforcement Special Agent in

[120] In-person Interview of NCEL staff, conducted on February 12, 2020 at the offices of NCEL in Raleigh, North Carolina.

Charge of the Gaming Section, who opined that NCEL was fully capable of exercising proper regulatory oversight over sports betting operations.[121]

NCEL has 262 employees, including separate departments for legal, finance, human resources, sales, security, technical support, advertising and marketing. Significantly, the agency has a demonstrably proven record for effective security and compliance. This is of paramount importance in considering the capability of the agency to undertake responsibility for any new form of gaming activity, particularly sports betting and video lottery terminals. The security investigations unit conducts administrative and criminal investigative operations, as well as fraud detection and prevention programs. The security department also ensures proper information security.

Our assessment is that, because of the existing infrastructure with an experienced staff and administrative resources, the agency is clearly well-positioned to provide the necessary regulatory oversight. Additional staff would be needed to implement and administer sports betting or other new forms of gaming. In our judgment, it makes better sense to rely upon NCEL for regulation of any expanded gaming operations than to create a new gaming entity. NCEL has extensive operating and marketing experience and a proven track record for sustaining a successful lottery. Moreover, NCEL has experience in developing an extensive retail chain and a great deal of experience in managing gaming technology providers in both the retail and digital spaces.

Based on our review of the material provided by NCEL, the agency already has experience with public procurement of various gaming services and possesses necessary technical support services to seamlessly transition to sports betting and video lottery terminals if those activities are authorized in the state. Moreover, NCEL has experience in providing the necessary security measures to ensure the integrity of lottery operations. Such experience is critical if the agency is required to expand its regulatory oversight to new forms of gaming activity. Another critical factor to be considered is that NCEL has its own internal legal department, which is an invaluable resource and will facilitate implementing new forms of gaming operations. Significantly, NCEL has built an excellent reputation for its responsible gaming program, earning accolades for its proactive direction in terms of education, communication and training in this highly critical aspect of regulating gaming operations.

Accordingly, we believe the State should take advantage of the infrastructure already in place rather than implementing a new gaming entity. In our judgment, it would not be prudent for the State to establish a new gaming entity, which would necessitate at the outset the costly expenditure of financial resources. Rather, it would be more pragmatic if those resources were allocated to NCEL for additional staffing positions. By the same token, in the event a new gaming commission were to

[121] Telephone interview of Christopher Scott Poole, North Carolina Alcohol Law Enforcement Special Agent in Charge of the Gaming Section, February 12, 2020.

be established to replace the State Lottery Commission, we recommend maintaining gaming operations by the NCEL staff, which has exhibited proficiency in dealing with gaming matters. In this regard, it is not so much a matter of the regulatory structure overseeing gaming operations but whether the staff of NCEL would be entrusted to handle these new responsibilities.

If sports betting and video lottery terminals are authorized on a statewide level and NCEL is selected as the appropriate regulatory agency, we believe consideration should be given to establishing within the agency a separate department dedicated to the regulation of these new gaming operations. Maryland implemented this regulatory system after the state authorized casino operations. Maryland already had a state-run lottery when casinos were authorized. The lottery was given regulatory authority over the casinos. Subsequently, as the need arose, a gaming division was established within the lottery to specifically oversee casino gaming operations, and the agency changed its name to the Lottery and Gaming Control Agency. Of course, we recognize that the need for such a designated department would increase exponentially should commercial casino gaming be authorized on a statewide basis.

Alternatively, if sports betting and video lottery terminals are authorized in North Carolina, Spectrum also suggests giving consideration to following the model employed in Delaware wherein a separate division of gaming enforcement was established to have critical enforcement oversight responsibilities and to conduct background investigations of license applicants. While NCEL currently performs these functions for lottery operations, in conjunction with ALE and the North Carolina State Bureau of Investigation ("SBI") regarding the background checks, specialization may enhance efficiency if new gaming operations are introduced.

Spectrum emphasizes, however, that the urgency for such regulatory modifications is not as pronounced unless commercial casinos are authorized in the state. Thus, in our judgment, the model currently being utilized by NCEL would be sufficient to absorb any new regulatory responsibilities that ensue with the introduction of sports betting, video lottery terminals or other new forms of gaming, provided additional staff is allocated to the agency. In particular, in the event of the authorization of video lottery terminals, there will be a definite need for expanded background investigations with the continued assistance of ALE and SBI.

We examined the regulatory structures of other states that have authorized sports betting operations since the Supreme Court's ruling. As noted, in those states that have a lottery with no separate gaming commission, in all cases the lottery has been entrusted with regulatory responsibility for sports betting regulation.

For ease of reference, in addition to the narrative Spectrum below includes the following table (over five pages) that sets forth the different regulatory models by state.

Figure 87: Comparison of state regulatory structures

State	Gaming Regulator, Types, First Year of Gaming	Gaming, Lottery Commission Structure	No. Commissioners	Year Established
Dual-Agency Structure				
FL	The Division of Pari-Mutuel Wagering has jurisdiction over all forms of gaming activity in the state except for lottery, bingo and the "cruises to nowhere" (which take place in unregulated, international waters). Counties that permit bingo have their own individual ordinances that govern their operation. Pari-mutuel wagering is authorized for horse racing, harness horse racing, quarter horse racing, greyhound racing, jai alai games, and cardroom poker games. Additionally, slot machine gaming at pari-mutuel facilities is authorized in Broward and Miami-Dade counties.	The Division's structure includes six functional areas which act under the management of the Office of the Director. These functional areas include Revenue and Financial Analysis, Auditing, Operations, Investigations, Slot Operations, and State Compliance Agency.	0	1932
	Florida Lottery regulates lottery operations, founded in 1988 after legislation enacted in 1986.	The Florida Lottery is headed by the Lottery Secretary. The Lottery includes a Division of Security, which is an authorized law enforcement agency. The Division conducts background investigations and criminal investigations for the Lottery. The Lottery also has an Inspector General who serves as the Chief Audit Executive, whose mission is to protect and promote public integrity and accountability within the Agency through audits and investigations that detect fraud, waste, abuse, and administrative violations. An Inspector General is established in each state agency in Florida to provide a central point for coordination of and responsibility for activities that promote accountability, integrity, and efficiency in government.	0	1988
IA	Racing and Gaming Commission: Regulates casinos, racing, sports betting. Riverboat casinos 1989 Racino 1995 Sports betting 2018	Five commissioners appointed by the Governor and confirmed by Senate, serve three-year terms, bipartisan membership, annual salary of $10,000. Members shall also be reimbursed for actual expenses incurred in the performance of their duties to a maximum of $30,000 per year for the commission.	5	1983
	Iowa Lottery Authority	Five members of a Board of Directors appointed by Governor and confirmed by Senate. State Treasurer serves on Board, serve staggered four-year terms. Lottery Board must have a member with accounting background, a member with experience in marketing, a member with law enforcement experience and another member who has practiced or is currently practicing law. Bipartisan membership. Receive per diem and reimbursed for expenses.	5	2003

State	Gaming Regulator, Types, First Year of Gaming	Gaming, Lottery Commission Structure	No. Commissioners	Year Established
KS	Kansas Lottery Commission	Five commissioners appointed by the Governor, confirmed by the Senate, serve staggered four-year terms, bipartisan membership, receive compensation as determined by the Governor.	5	1986
	Kansas Racing and Gaming Commission: Regulates casinos and pari-mutuel horse racing and greyhound racing. Casinos 2009	Five commissioners appointed by the Governor and confirmed by the Senate, serve four-year terms.	5	2007
MA	Massachusetts Gaming Commission: Regulates casinos First casino opened 2015	Five full-time commissioners, receive annual salaries, serve five-year terms, bipartisan membership. Of the five, one shall be appointed by the governor, one shall be appointed by the attorney general and shall have experience in criminal investigations and law enforcement; one shall be appointed by the treasurer and receiver general and shall have experience in corporate finance and securities; and two shall be appointed by a majority vote of the governor, attorney general and the treasurer and receiver general, one of whom shall have experience in legal and policy issues related to gaming and one of whom may have professional experience in gaming regulatory administration or gaming industry management. The governor shall designate the chair of the commission. Receive salaries based on a state salary schedule.	5	2011
	Massachusetts Lottery Commission: Lottery 1972	Five-member commission that includes the State Treasurer as chairperson, the Secretary of Public Safety, the State Comptroller, and two gubernatorial appointees. The government officials serve terms coterminous with their government positions. The gubernatorial appointees serve terms that coincide with the governor. If the governor is re-elected, they must be re-appointed.	5	1971
MI	Michigan Gaming Control Board: Casinos opened in 1999 Sports betting approved 2019, started 2020 Igaming approved 2019 (starting 2020 or 2021)	Five members, appointed by Governor with the advice and consent of the Senate, serve four-year terms, bipartisan, reimbursed for expenses.	5	1996
	Bureau of State Lottery: Lottery began in 1972	The head of the bureau is the Commissioner, appointed by the Governor with the advice and consent of the Senate, a full-time position, receives a salary as provided by annual appropriation.	1	1972
MS	Mississippi Gaming Commission: Casino, charitable gaming, sports betting Casinos opened in 1992 Sports betting 2018	Three commissioners, serve staggered four-year terms, appointed by Governor with advice and consent of Senate, receive per diem payments.	3	1990

State	Gaming Regulator, Types, First Year of Gaming	Gaming, Lottery Commission Structure	No. Commissioners	Year Established
	Mississippi Lottery Corporation: Lottery 2018	Five-member board of directors selected by Governor and confirmed by Senate, serve staggered five-year terms, receive per diem payments.	5	2018
NJ	Casino Control Commission and Division of Gaming Enforcement: Casino 1978, igaming 2015, sports betting 2018	Three commissioners are full-time, serve staggered five-year terms; appointed by Governor; annual salary of $125,000, chair's salary is $141,000, bipartisan.	3	1978
	Lottery Commission: Lottery 1969	Seven members, including the State Treasurer and the Director of the Division of Investments, serving as ex officio members; five public members, who are reimbursed for expenses up to $5,000 for the chairman and $3,500 for the other members, bipartisan, serve staggered terms of five years.	7	1969
NM	New Mexico Gaming Control Board: Racinos 1999 Sports betting 2018	Five commissioners, one of whom is Chairman of Racing Commission, one is a lawyer, one is a CPA, one has law enforcement experience, one public member experienced in Business management and financing; the lawyer, CPA, and law enforcement persons are full-time with salary set by Governor, serve five-year terms.	5	1997
	New Mexico Lottery Authority	Seven members appointed by the Governor, with the advice and consent of Senate, experiential requirements, bipartisan, serve five-year terms, reimbursed for expenses.	7	1978
OH	Casino Control Commission: Casinos; skill-based games; fantasy contests. First casino opened in 2012	Seven part-time commissioners appointed by the Governor with advice and consent of Senate; serve four-year terms, at least one commissioner must have experience in each of the following areas: law enforcement and criminal investigation, certified public accounting with auditing, or hold an Ohio law license. In addition, at least one commission member must reside in a county with a casino, receive annual salary of $30,000.	7	2011
	Ohio Lottery Commission: Lottery and racinos Lottery began 1994	Nine commissioners appointed by the Governor with advice and consent of the Senate, receive salary of $5,000, bipartisan, one commissioner shall be experienced in the area of problem gambling. The other members are to have prior experience or education in business administration, management, sales, marketing or advertising.	9	1993
Single-Agency Structure				
DC	Office of Lottery and Gaming: regulates lottery, charitable gaming, sports betting. Lottery: 1982 Sports betting: 2019 (commencing 2020)	Executive Director under the authority of Chief Financial Officer.	0	1982

State	Gaming Regulator, Types, First Year of Gaming	Gaming, Lottery Commission Structure	No. Commissioners	Year Established
DE	Delaware Lottery: lottery, racinos, sports betting 2018.	Supervised by a Director; has a Division of Gaming Enforcement.	0	Lottery 1974, DGE 2010
MD	Lottery and Gaming Control Agency: regulates lottery, casinos. Lottery 1973 First casino 2010	Seven-member advisory commission, appointed by the Governor with advice and consent of the Senate, serve four-year terms.	7	Lottery 1973, Casinos 2009
MT	Montana Lottery Commission: lottery, sports betting. Lottery 1987 Sports betting 2019	Five members appointed by the Governor, serve staggered four-year terms, at least one member must have at least five years of law enforcement experience, at least one member must be a licensed attorney in Montana, and at least one member must be a certified public accountant licensed in Montana. They receive per diem compensation of $50 a day for the days they are engaged in the performance of their duties, as well as travel, meals and lodging expenses.	5	1986
NH	New Hampshire Lottery Commission: lottery, sports betting. Lottery 1964 Sports betting 2019	Three commissioners appointed by the Governor and Executive Council, serve staggered three-year terms, reimbursed for expenses.	3	1964
NY	New York Gaming Commission: horse racing and pari-mutuel wagering, Class III tribal gaming, the state lottery including video lottery terminals, commercial casino gaming, and charitable gaming.	There are seven commissioners in the Gaming Commission appointed by the Governor with the advice and consent of the Senate. Of the seven members, one is appointed upon the recommendation of the president of the senate and one is appointed upon the recommendation of the speaker of the assembly. Members serve five-year terms. They receive compensation in the amount of $300 per day plus expenses while performing work for the Gaming Commission. Members of the Gaming Commission must each possess no less than five years of responsible administrative experience in public or business administration and have any one or more of the following qualifications: • significant service as a certified public accountant experienced in accounting and auditing, • a comprehensive knowledge of corporate finance and securities, • professional experience in gaming or racing regulatory administration or gaming or racing industry management, • significant experience in the fields of criminal investigation, law enforcement, or law, or	7	2013

State	Gaming Regulator, Types, First Year of Gaming	Gaming, Lottery Commission Structure	No. Commissioners	Year Established
		• significant experience in the prevention or treatment of problem gambling.		
OR	Oregon Lottery Commission: Lottery 1985	Five commissioners appointed by the Governor and confirmed by the Senate, serve four-year terms, bipartisan, one commissioner must have a minimum of five years' experience in law enforcement and one commissioner must be a certified public accountant.	5	1984
RI	Rhode Island Lottery: lottery, casinos, sports betting Lottery 1974 Video lottery terminals 1992 Sports betting 2018	Nine commissioners; three members of the Senate appointed by the majority leader, three members of the House appointed by the House Speaker, three members of the public appointed by the Governor, serve staggered three-year terms, reimbursed for expenses.	9	1974
TN	Tennessee Education Lottery Corporation: Lottery 2004	Seven members of the Board of Directors appointed by the Governor and approved by the General Assembly, serve five-year terms, reimbursed for expenses.	7	2003
WV	West Virginia Lottery Commission: lottery, casinos, sports betting. Lottery 1984 Video lottery 2014 Sports betting 2018	Seven commissioners appointed by the Governor and approved by the Senate, serve five-year terms, experiential requirements, a lawyer, CPA, law enforcement, computer expert, marketing experience, two members represent the public, bipartisan.	7	1984

Source: State gaming and lottery agencies

A. Single-Agency Model

The first group to be addressed is a single-agency model, with a lottery regulating sports betting with no separate gaming commission. For Delaware, Rhode Island and West Virginia there are casinos that are regulated by the state lottery; for the District of Columbia, Montana, New Hampshire, Oregon and Tennessee, there are no commercial casinos, but there is sports betting either currently in operation or on the horizon. This is the regulatory model that we believe is preferable for North Carolina.

Delaware: The enabling legislation that established the traditional lottery placed the supervision of the lottery in the control of a director, with broad decision-making responsibilities.[122] The Delaware Lottery regulates gaming operations at the three racinos, including sports betting. The state also established a Division of Gaming Enforcement to

[122] Comprehensive Financial Report of the Delaware Lottery for period ending June 30, 2019. https://auditor.delaware.gov/wp-content/uploads/sites/40/2019/12/Delaware-State-Lottery-CAFR-2019.pdf

administer the security and law enforcement provisions of the statute and to conduct background investigations.[123] The Lottery offers a wide variety of scratchoff games; it also operates video lottery games and table games at the three racetrack casinos: Delaware Park, Dover Downs and Harrington Raceway & Casino. Additionally, Sports Lottery and keno are offered at the three racetrack casinos and select Sports Lottery and keno retailers throughout the state.[124]

Maryland: Maryland combines the oversight of lottery operations and casino gaming into one agency, the Maryland Lottery and Gaming Control Agency,[125] but leaves the regulation of horse racing and off-track betting to another governmental agency, the Maryland Racing Commission.[126] Currently, there is no authorized sports betting, but it may reasonably be predicted that the Lottery and Gaming Control Agency would be entrusted with overseeing that operation if it is authorized. When casino gaming was authorized, the Lottery assumed regulation of the new gaming activity, later changing its name to the Lottery and Gaming Control Agency. The five land-based casinos and one racino are regulated by the Maryland Lottery and Gaming Control Agency, which relies on a seven-member advisory commission to determine the outcome of licensing investigations and to oversee internal controls and law enforcement matters related to the facilities. Seven members constitute the commission. They are appointed to four-year terms by the Governor with Senate advice and consent.

Montana: A five-member Lottery Commission approves games and contracts, establishes policy, and oversees operations. The members are appointed by the Governor, and they serve staggered four-year terms. By statute, at least one member must have at least five years of law enforcement experience, at least one member must be a licensed attorney in Montana, and at least one member must be a certified public accountant licensed in Montana. They receive per diem compensation of $50 a day for the days they are engaged in the performance of their duties, as well as travel, meals and lodging expenses.[127]

New Hampshire: The Lottery Commission has three members appointed by the Governor and Executive Council. The commission members serve staggered three-year terms.[128] They do not receive a salary but are entitled to receive reimbursement for expenses. In July 2019, House Bill 480 was signed into law, authorizing the New Hampshire Lottery Commission to conduct and

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[123] Ibid.

[124] Delaware Lottery, "About Us." https://www.delottery.com/About-Us

[125] NASPL, Maryland Lottery and Gaming Control Agency. http://www.naspl.org/nasplmembers/Maryland

[126] Maryland Racing Commission. https://www.dllr.state.md.us/racing/

[127] Montana Code Annotated, section 23-7-201. https://leg.mt.gov/bills/mca/23/7/23-7-201.htm

[128] Comprehensive Financial report of the New Hampshire Lottery Commission for the period ending June 30, 2019. https://www.nhlottery.com/Files/PDFs/Financial-Reports/NH_Lottery_CAFR_2019.aspx

regulate sports wagering. The legislation allows three channels of sports wagering through contracted agents and vendors across internet and mobile platforms, at up to ten physical sports book retail locations, and through traditional lottery retailers. A Request for Proposals in the fall of 2019 resulted in the selection of two vendors who were approved in November 2019 by the Governor and Executive Council: DraftKings for the mobile and sports book retail channels; and Intralot, Inc. for the lottery retail channel. Sports betting launched on December 30, 2019, via digital channels; retail channels will follow later this year.[129]

Oregon: The state lottery is operated by a five-member State Lottery Commission, with the commissioners appointed by the Governor and confirmed by the Senate. The members serve four-year terms. Oregon law requires that at least one commissioner have a minimum of five years' experience in law enforcement and that at least one commissioner must be a certified public accountant. No more than three members of the commission can be affiliated with the same political party.[130]

Rhode Island: There is a nine-member Lottery Commission. The members receive no salary compensation but are reimbursed for reasonable expenses. The Lottery Commission is comprised of three members of the Senate, appointed by the majority leader, three members of the House of Representatives appointed by the House Speaker and three public members appointed by the Governor. They serve staggered terms of three years.

Tennessee: The Tennessee Education Lottery Corporation has a seven-member board of directors. The members are appointed by the Governor and confirmed by the General Assembly. They serve five-year terms. The members of the board do not receive a salary but are compensated for reasonable expenses. The board provides governance and sets policy for the Corporation.[131] The statute mandates that the board members have expertise in their businesses or professions. The statute further provides that the Governor should "strive to ensure that the board is composed of directors who are diverse in professional or educational background, ethnicity, race, gender, geographic residency, heritage, perspective and experience."[132]

Washington, DC: The Office of Lottery and Gaming is the regulatory body overseeing all licensed gaming in the District of Columbia, including lottery, charitable gaming and sports wagering. Sports wagering was authorized in the District of Columbia pursuant to the Sports Wagering Lottery Amendment Act of 2018, and is on schedule to be implemented in the first half of 2020. The law authorizes the Chief Financial Officer to adopt rules and regulations governing

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[129] Ibid.

[130] Oregon Lottery Commission. https://oregonlottery.org/about/public-interaction/commission-director

[131] Chapter 51, Tennessee Education Lottery Implementation Law. https://www.tnlottery.com/sites/default/files/2019-07/TEL_Implementation_Law_0.pdf..

[132] Ibid.

the conduct of sports wagering.[133] The DC Lottery and Charitable Games Control Board was created as an independent agency of the Government of the District of Columbia. [134] The board was later reorganized as the OLG under the authority of the Chief Financial Officer, with the passage of the Sports Wagering Lottery Amendment Act. All of the powers, duties, functions, and personnel of the Board were transferred to the Office of the Chief Financial Officer.[135] The Chief Financial officer appoints an executive director and a deputy director.[136]

West Virginia: The West Virginia Lottery Commission is required to have seven members comprised of a lawyer, a certified public accountant, a computer expert, a marketing specialist, and one member with not less than five years of law enforcement experience. An additional two members represent the public. They are appointed by the Governor and approved by the state Senate. No more than four members may be from the same political party. The members serve five-year terms.[137]

B. Single Agency in Charge of Regulating All Forms of Gaming

One state – New York – has a single agency tasked with the primary responsibility of regulating all aspects of its gaming. New York in 2013 merged gaming regulatory agencies and created a single umbrella agency, the New York State Gaming Commission, with oversight responsibilities over all aspects of authorized gaming in the state, including horse racing and pari-mutuel wagering, Class III tribal gaming, the state lottery including video lottery terminals, commercial casino gaming, and charitable gaming.[138] By consolidating various regulatory functions into one oversight body with broad powers, the State of New York sought to ensure fair and strict regulation of all gaming activity while reducing costs and regulatory burdens to the gaming industry.[139]

By statute, there are seven commissioners in the Gaming Commission appointed by the Governor with the advice and consent of the Senate, although currently there are only five commissioners at this time. Of the seven commissioners, one is appointed upon the recommendation of the president of the senate and one is appointed upon the recommendation

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[133] Sports Wagering Lottery Amendment Act of 2018, B22-0944.

[134] Government of the District Of Columbia, D.C. Lottery and Charitable Games Control Board, "Financial Statements And Management's Discussion And Analysis," September 30, 2015 and 2014. https://dclottery.com/resources/docs/dc%20lottery%20-%20fs%20-%20ye%209-30-15_final(signed).pdf

[135] D.C. Code, Chapter 36. § 601.01.

[136] D.C. Code, Chapter 36. § 601.03.

[137] Comprehensive Financial report of the West Virginia Lottery Commission for the period ending June 30, 2019. https://wvlottery.com/wp-content/uploads/2019/12/WVL2019AR.pdf

[138] Annual report of the New York State Gaming Commission, 2018.

[139] Ibid.

of the speaker of the assembly. The members serve five-year terms. They receive compensation in the amount of $300 per day plus expenses while performing work for the Gaming Commission.[140]

Members of the commission must each possess no less than five years of responsible administrative experience in public or business administration and have any one or more of the following qualifications:

- significant service as a certified public accountant experienced in accounting and auditing,
- a comprehensive knowledge of corporate finance and securities,
- professional experience in gaming or racing regulatory administration or gaming or racing industry management,
- significant experience in the fields of criminal investigation, law enforcement, or law, or
- significant experience in the prevention or treatment of problem gambling.[141]

A similar proposed regulatory structure that would have transferred the regulation of gaming to a new Department of Gaming Control was considered in Florida in 2008, but it was ultimately rejected by the legislature.[142]

C. Two-Agency Model

Florida: The Division of Pari-Mutuel Wagering in Florida has jurisdiction over all forms of gaming activity in the state except for lottery, bingo and the "cruises to nowhere"[143] (which take place in unregulated, international waters). The Florida Lottery regulates lottery operations.[144] Counties that permit bingo have their own individual ordinances that govern their operation.[145]

Pari-mutuel wagering is authorized for horse racing, harness horse racing, Quarter Horse racing, greyhound racing, jai alai games, and cardroom poker games. Additionally, slot machine gaming at pari-mutuel facilities is authorized in Broward and Miami-Dade counties. The Division's

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[140] New York Racing, Pari-Mutuel Wagering and Breeding Law, Sections 102.1, 102.3, and 102.4. https://newyork.public.law/laws/n.y._racing,_pari-mutuel_wagering_and_breeding_law_article_1, New York State Gaming Commission, https://www.gaming.ny.gov/about/

[141] N.Y. Racing, Pari-Mutuel Wagering and Breeding Law, Section 102.2. https://newyork.public.law/laws/n.y._racing,_pari-mutuel_wagering_and_breeding_law_article_1

[142] The Florida Senate Interim Report 2011-133, "Review Expansion of Casino Gaming in Other States," October 2010.

[143] Spectrum Gaming Group, "Gambling Impact Study," October 28, 2013. http://www.leg.state.fl.us/GamingStudy/docs/FGIS_Spectrum_28Oct2013.pdf

[144] Ibid.

[145] Ibid.

structure includes six functional areas which act under the management of the Office of the Director. These functional areas include Revenue and Financial Analysis, Auditing, Operations, Investigations, Slot Operations, and State Compliance Agency.

The Florida Lottery is headed by the Lottery Secretary. The Lottery includes a Division of Security which is an authorized law enforcement agency. The Division conducts background investigations and criminal investigations for the Lottery.[146] The Lottery also has an Inspector General who is the Chief Audit Executive for the agency, whose mission is to protect and promote public integrity and accountability within the Agency through audits and investigations that detect fraud, waste, abuse, and administrative violations.[147] An Inspector General is established in each state agency in Florida to provide a central point for coordination of and responsibility for activities that promote accountability, integrity, and efficiency in government as outlined in Florida Statute 20.055.[148]

Iowa: The Iowa Lottery Board is made up of five Iowa citizens appointed by the Governor, and the State Treasurer serves as an ex-officio member of the board. The board oversees the lottery and its operations. Each department at the lottery formally reports to the board at meetings held throughout the year. According to Iowa Code, the Lottery Board must have a member with an accounting background, a member with experience in marketing, a member with law enforcement experience and another member who has or is currently practicing law. No more than three board members can be of the same political party. The members serve staggered four-year terms.

The Iowa Racing and Gaming Commission, which regulates sports betting in the state, is composed of five commissioners appointed by the Governor, subject to confirmation by the Senate. They serve three-year terms. No more than three members of the commission may be members of the same political party.

Iowa, Kansas, Michigan, Nevada and South Dakota are other examples of states that combine all of their casino gaming and pari-mutuel regulation and enforcement responsibility into one agency, with a separate lottery commission.[149] Michigan, Nevada and South Dakota also include their oversight responsibilities under the states' Indian gaming compacts in the same agency that is responsible for the regulation of the commercial casinos and the pari-mutuels.[150]

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[146] Florida Lottery, https://www.flalottery.com/security

[147] Florida Lottery, https://www.flalottery.com/inspectorGeneral

[148] Ibid.

[149] The Florida Senate Interim Report 2011-133, "Review Expansion of Casino Gaming in Other States," October 2010. https://www.flsenate.gov/UserContent/Session/2011/Publications/InterimReports/pdf/2011-133ri.pdf

[150] Ibid.

Kansas: The Lottery Commission has five commissioners appointed by the Governor to serve four-year terms.[151] The Kansas Racing and Gaming Commission ("KRGC:) is the agency responsible for the regulation of expanded gaming and pari-mutuel wagering in Kansas. The KRGC has five members appointed by the Governor and confirmed by the Senate for four-year terms.[152] The state does not offer sports betting. However, under a proposed bill authorizing sports betting, the Kansas Lottery would oversee sports betting, but the Kansas Racing and Gaming Commission would regulate advertising and maintain an exclusion list.[153]

Massachusetts: The Massachusetts Gaming Commission has regulatory authority over casino gaming and the horse racing industry, but lottery operations are overseen by a separate lottery commission.[154] The Gaming Commission has five full-time commissioners who serve five-year terms, one of whom is appointed by the governor; 1 of whom is appointed by the attorney general and who must have experience in criminal investigations and law enforcement; one of whom shall be appointed by the treasurer and receiver general and who must have experience in corporate finance and securities; and two of whom shall be appointed by a majority vote of the governor, attorney general and the treasurer and receiver general, one of whom must have experience in legal and policy issues related to gaming and one of whom may have professional experience in gaming regulatory administration or gaming industry management. The governor designates the chair of the Commission. The Commissioners receive salaries based on a state salary schedule.[155]

The Lottery Commission is comprised of five members that includes the State Treasurer as the Chairperson, the Secretary of Public Safety, the State Comptroller, and two gubernatorial appointees. The terms of these government officials run coterminous with their government positions. The two gubernatorial appointees serve terms that coincide with the governor. If the governor is re-elected, these commissioners must be re-appointed.

The Commissioners set overall policy for the Lottery that reflects its statutory mission and vision. They advise and make recommendations to the Executive Director of the Lottery regarding its operation and administration.[156]

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[151] Kansas Lottery Commission. https://www.kslottery.com/administration/commission

[152] Kansas Racing and Gaming Commission. https://www.krgc.ks.gov/index.php/overview

[153] Jill R. Dorson, "Kansas Kicks Around Sports Betting, Again," SportsHandle.com, January 27, 2020. https://sportshandle.com/kansas-sports-betting-2020-legislation/

[154] Massachusetts Gaming Commission. https://massgaming.com/

[155] Massachusetts General Laws, c.23k, section 3a. https://malegislature.gov/Laws/SessionLaws/Acts/2011/Chapter194

[156] Massachusetts General Laws, c. 10 section 23. https://www.masslottery.com/about/commission.html

Michigan: The lottery was legalized in 1972 and is regulated by the Michigan Bureau of State Lottery, with a single Commissioner who is appointed by the Governor with the advice and consent of the Senate. This is a full-time position, with an annual salary as provided by annual appropriation**.** The Commissioner acts as the executive director, and there is no lottery commission with multiple commissioners. This agency promulgates rules governing lottery games and oversees the issuance of the lottery, bingo, and charitable gaming licenses.[157]

When casinos were authorized in 1996, the decision was made to establish a Gaming Control Board for the regulation of the casinos. The Gaming Control Board regulates sports betting. The board is comprised of five Michigan residents appointed by the Governor with the advice and consent of the Senate. One member is designated by the Governor as the chairperson. Under the act, no more than three members may belong to the same political party. They serve four-year terms.[158]

Mississippi: The Mississippi Gaming Commission regulates casino gaming, charitable gaming and was recently entrusted with the regulation of sports betting operations. The commission has three members who are appointed by the Governor with the advice and consent of the Senate. Commissioners serve staggered four-year terms.[159] They do not receive a salary but do receive per diem payments for their services. Prior to the nomination, the Joint Legislative Committee on Performance Evaluation and Expenditure Review, a nonpartisan standing committee of the Mississippi Legislature, shall conduct an inquiry into the nominee's background, with particular regard to the nominee's financial stability, integrity and responsibility and his reputation for good character, honesty and integrity.[160]

The state is somewhat unusual in that the lottery was preceded by the authorization of casinos. In 2018, Mississippi authorized a state lottery. The bill established the Mississippi Lottery Corporation, to be run by a five-member board of directors appointed by the Governor and confirmed by the Senate. The Commissioner of Revenue and the State Treasurer serve as ex officio non-voting members. The members serve staggered five-year terms. The board is responsible for filling leadership positions at the new agency and approving contracts and multistate lottery agreements, among other oversight responsibilities.[161]

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[157] Michigan Bureau of State Lottery. http://www.michigangaming.com/resources/government-officials/michigan-lottery-bureau

[158] 2018 Annual Report of the Michigan Gaming Control Board. https://www.michigan.gov/documents/mgcb/2018_MGCB_Annual_Report_public_version_Final_4.15.19_652653_7.pdf

[159] Miss. Code Ann. § 75-76-9.

[160] Miss. Code Ann. § 75-76-9 (5).

[161] Mississippi Lottery Corporation. www.mslotteryhome.com

New Jersey: The state utilizes a dual-agency methodology for the regulation of sports betting. In New Jersey, the commercial casinos and racetracks may apply for licenses to conduct land-based and online sports betting operations. The Division of Gaming Enforcement ("Division"), under the authority of a Division Director, issues sports wagering licenses and renewals thereof to casinos.[162] The Racing Commission issues all initial sports wagering licenses to racetracks, but the Division shall have responsibility for the renewal thereof.[163] No sports wagering license shall be issued by the Division or Racing Commission to any entity unless it has established its financial stability, integrity and responsibility and its good character, honesty and integrity. [164]

The state also has a dual-agency approach for the regulation of casino gaming: the Casino Control Commission and the Division of Gaming Enforcement. At the outset of casino gaming in 1978, the former agency operated as a quasi-judicial agency while the latter preformed more of a prosecutorial role. Their functions changed recently with new legislation that gave some of the regulatory responsibilities formerly performed by the Commission to the Division of Gaming Enforcement. The Division Director is appointed by and serves at the pleasure of the Governor. There are currently three full-time Commissioners on the Casino Control Commission, having been reduced from its original number of five. They receive an annual salary of $125,000, with the Chair receiving $141,000. The Commissioners serve staggered five-year terms and have bipartisan membership.

The state has a separate Lottery Commission entrusted with the regulation of lottery operations. The bipartisan Lottery Commission consists of seven members, including the State Treasurer and the Director of the Division of Investments, serving as ex officio members, and five public members, appointed by the Governor with the advice and consent of the Senate. The public members are each appointed for a term of five years. It was formed in 1969. Public members serve without compensation but are entitled to reimbursement for expenses up to $5,000 a year for the chairman and $3,500 for the other members. The New Jersey Lottery's Chief Operating Officer is the Executive Director, who also serves as Secretary to the Commission.

Ohio: Ohio employs a dual-agency model of gaming regulation, with a Lottery Commission and Casino Control Commission. The Lottery Commission, which regulates the state's racinos and lottery operations, preceded the formation of the Casino Control Commission. When casino gaming was authorized, the state determined to establish a separate agency for this new endeavor. The Lottery Commission has nine part-time commissioners who are appointed by the Governor with the advice and consent of the Senate, but currently operates with one

[162] New Jersey Casino Control Act, N.J.S.A.5:12A-11. https://www.nj.gov/lps/ge/act.html.

[163] Ibid.

[164] Ibid.

vacancy.[165] The commissioners serve three-year terms and are required to be bipartisan. One member is required to be experienced in the area of problem gambling. The other members are to have prior experience or education in business administration, management, sales, marketing, or advertising. The commissioners receive an annual salary of $5,000.[166]

The Casino Control Commission was created in 2011 to regulate the four casinos authorized by a constitutional amendment, located in Cincinnati, Cleveland, Columbus and Toledo. Subsequently, this Commission was given authority to regulate skill-based games and fantasy contests. The Casino Control Commission has seven part-time commissioners who are appointed by the Governor with the advice and consent of the Senate. They serve four-year terms and receive an annual salary of $30,000 plus expenses. No more than four commissioners can be members of the same political party, and all must be Ohio residents. At least one commissioner must have experience in each of the following areas: law enforcement and criminal investigation, certified public accounting with auditing, or hold an Ohio law license. In addition, at least one commission member must reside in a county with a casino.[167]

New Mexico: New Mexico offers commercial casino gaming at five racinos. Electronic gaming devices at the properties are regulated by the New Mexico Gaming Control Board. There are five commissioners on the Gaming Control Board, one of whom also serves as the Chairman of the Racing Commission.[168] One commissioner is an attorney, one is a CPA, one has law enforcement experience and one public member is experienced in business management and financing. The lawyer, CPA an and law enforcement positions are full-time positions with an annual salary set by the Governor. They serve five-year terms. New Mexico became the sixth state to offer legal sports wagering at one of its tribal casinos. Separately, the New Mexico Lottery prepared to launch a limited form of sports wagering. Lottery commissioners adopted rules in October 2019 authorizing the creation of a sports lottery game in which players can wager on the outcome of at least three sporting events.

The New Mexico Lottery Authority has seven members on the Board of Directors. The directors are residents of New Mexico appointed by the Governor with the advice and consent of the Senate. The directors are prominent persons in their businesses or professions and geographically represent the State of New Mexico. No more than four directors are from any one political party. The directors receive no compensation for their services, but are reimbursed for

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[165] Ohio Lottery Commission. https://www.ohiolottery.com/About/Lottery-Commission/Commissioners/

[166] Ohio Rev. Code Chapter 3770.01. http://codes.ohio.gov/orc/3770.01.

[167] 2019 Annual Report of the Ohio Casino Control Commission. https://casinocontrol.ohio.gov/Portals/0/Communications/2019%20OCCC%20Annual%20Report%20_%20FINAL_small.pdf?ver=2019-09-18-145415-510

[168] 2015 Annual Report of the New Mexico Gaming Control Board. https://www.nmgcb.org/uploads/FileLinks/c3da00ae07fc4a6aa59329988e25bb3d/FY15___Final_1.pdf

approved expenses incurred in the conduct of the lottery's business. Each director is subject to a background check and investigation to determine his/her fitness for the office. At least one director has five years of experience as a law enforcement officer, one director is an attorney admitted to practice in New Mexico, and one director is a certified public accountant certified in New Mexico. The directors are appointed for five-year terms.[169]

D. Discussion of Regulatory Models

Most states, such as Pennsylvania, with commercial casinos and racinos provide for the regulation of the casino operations at the racino facilities by the same agency responsible for casino regulation and not by the pari-mutuel regulator. Ohio is the exception. That state has commercial casino gaming at four land-based casinos, each of which operates gaming machines and table games, and at seven racinos, which only offer gaming machines. The land-based casinos are regulated by the Ohio Casino Control Commission, and the racinos are regulated by the Ohio Lottery Commission.[170]

Some states take a more piecemeal approach by dividing responsibilities among various agencies. In New Jersey and Ohio, for example, separate and independent agencies regulate casino gaming, horse racing and lottery operations.[171] Overall, the states' organizational approaches to gaming regulations lie on a spectrum ranging from a complete horizontal distribution of regulatory functions to a more consolidated vertical structure.

Louisiana utilizes a dual-agency model for regulating the casino gaming industry. In this regulatory scheme, one agency operates in a quasi-judicial capacity (Gaming Control Board) while the other serves as the investigative, enforcement and prosecutorial arm (Gaming Enforcement Division of the State Police).[172] In this regard, Louisiana adheres to the precedent established by Nevada and New Jersey.[173] The audit and investigations functions are performed by the Gaming Enforcement Division of the State Police.[174] Other states employ a single-agency model that

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[169] New Mexico Financial Statements 2018. https://www.nmlottery.com/uploads/FileLinks/f93bc3cfcc9b44e5bfe426478398b44f/Final_Version_NMLA_2018_Audit.pdf

[170] Ohio Casino Control Commission, https://casinocontrol.ohio.gov/; Ohio Lottery Commission, https://www.ohiolottery.com/About/Index/History-and-Facts

[171] Casino gaming in New Jersey, N.J.S.A. 5:12-1 et seq.; horse racing in New Jersey, Title 13, Chapters 70, 71, 72, 73, 74, 74A and 74B, and 74C; lottery operations in New Jersey, State Lottery Law, TN.J.S.A. 5:9-1 et seq.; casino gaming in Ohio, Ohio Rev Code Chapter 3772; horse racing in Ohio, Ohio revised Code Chapter 3769; lottery operations in Ohio, Ohio Rev Code Chapter 3770.

[172] Annual report of the Louisiana Gaming Control Board, 2018, http://lgcb.dps.louisiana.gov/docs/2018_Annual_Report.pdf

[173] N.J.S.A. 5:12-1 *et seq.*; Nevada Gaming Control Board and Nevada Gaming Commission. https://gaming.nv.gov/index.aspx?page=75

[174] Louisiana Gaming Enforcement Division. http://www.lsp.org/gaming/

includes the investigative duties within the same agency. Examples of states that have adopted this approach are Mississippi, Massachusetts, Ohio, Pennsylvania and Maryland.[175]

An important consideration in the regulation of different gaming activities by a single agency is whether to separate the enforcement functions within the agency. This is a matter of greater importance, however, where there is authorized casino gaming, which requires enhanced regulatory oversight. Of the states with a single agency for the regulation of all casino gaming and pari-mutuels in the state, Iowa is the only state that does not separate its enforcement activities within that agency. Some of Iowa's pari-mutuel inspectors also serve as on-sight inspectors at the casinos.[176]

Conversely, in Florida the Division of Pari-Mutuel Wagering separates the division's racino slot machine enforcement responsibilities from its pari-mutuel enforcement responsibilities. The division's oversight responsibilities under the compacts with Native American tribes are also performed by division personnel who are not involved in the division's pari-mutuel and racino slot machine regulation and enforcement functions. The division's use of personnel who only perform the division's duties under the compacts is intended to address the tribes' concern that the division's regulatory approach to pari-mutuel and racino issues might conflict with the non-regulatory, oversight duties under the compacts.[177]

Some gaming regulators and consultants believe that one advantage of having separate personnel for the pari-mutuel wagering regulation and casino regulation is that the personnel develop and focus on a single area of expertise. Another advantage of separating the regulatory and enforcement functions is that the agency is able to ensure that the fees and taxes paid for one gambling activity are not used to regulate another activity.[178]

In Spectrum's judgment, in the event that additional gaming operations are authorized, the NCEL, working in conjunction with ALE and SBI, will be fully capable of performing the necessary regulation and enforcement functions within its existing framework, with additional personnel.

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[175] The Florida Senate Interim Report 2011-133, "Review Expansion of Casino Gaming in Other States," October 2010; Massachusetts Expanded Gaming Act, Chapter 194 of the Acts of 2011. http://massgaming.com/about/expanded-gaming-act

[176] The Florida Senate Interim Report 2011-133, "Review Expansion of Casino Gaming in Other States," October 2010. https://www.flsenate.gov/UserContent/Session/2011/Publications/InterimReports/pdf/2011-133ri.pdf

[177] Spectrum Gaming Group, "Gambling Impact Study," October 28, 2013. http://www.leg.state.fl.us/GamingStudy/docs/FGIS_Spectrum_28Oct2013.pdf

[178] The Florida Senate Interim Report 2011-133, "Review Expansion of Casino Gaming in Other States," October 2010, https://www.flsenate.gov/UserContent/Session/2011/Publications/InterimReports/pdf/2011-133ri.pdf

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The composition of the casino gaming regulatory agency varies among the states. For example, New Jersey has three commissioners; Ohio has seven; Massachusetts has five; and Louisiana has the largest complement of nine.[179]

In Louisiana, the Gaming Control Board members other than the chairman serve in part-time capacities. Ohio, Illinois, Missouri, Indiana, Iowa and Colorado are examples of other states that use part-time gaming commissioners, who are compensated on a per diem basis or by virtue of a stipulated annual salary.[180] By contrast, New Jersey and Massachusetts have full-time commissioners, with annual salaries set by statute.[181]

Louisiana has specific criteria for selecting members of the Gaming Control Board. At least one member must have expertise in finance; one must have expertise in investigations and law enforcement; one must be a lawyer licensed to practice in Louisiana with a minimum of five years' experience; and one must have experience as an economic planner or community planner.[182]

Ohio is another state that has explicit requirements for the selection of its commissioners for the Ohio Casino Control Commission. In Ohio, there are seven commissioners appointed by the Governor. No more than four commissioners can be members of the same political party and all must be Ohio residents. At least one commissioner must have experience in each of the following areas: law enforcement and criminal investigation, certified public accounting with auditing, or hold an Ohio law license. In addition, at least one commission member must reside in a county with a casino.[183]

D. Conclusion

Based on the foregoing, there are myriad variations in how each state approaches the regulation of diverse gaming operations. Spectrum believes the State of North Carolina should

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[179] Annual report of New Jersey Casino Control Commission, 2017. https://www.nj.gov/casinos/about/reports/pdf/2017_ccc_annual_report.pdf; Ohio Casino Control Commission, https://casinocontrol.ohio.gov/; Massachusetts Gaming Commission. https://massgaming.com/; Annual report of the Louisiana Gaming Control Board, 2018. http://lgcb.dps.louisiana.gov/docs/2018_Annual_Report.pdf

[180] Ohio Casino Control Commission. https://casinocontrol.ohio.gov/; Annual report of Illinois Gaming Board, 2018. http://www.igb.illinois.gov/AnnualReport.aspx; Annual report of Missouri Gaming Commission, 2018. http://www.mgc.dps.mo.gov/annual_reports/_ar_main.html; Annual report of Indiana Gaming Commission, 2018. https://www.in.gov/igc/2362.htm; Iowa Racing and Gaming Commission. https://irgc.iowa.gov/publications/annual-reports; Colorado Limited Gaming Commission, https://www.colorado.gov/pacific/enforcement/node/37711

[181] N.J.S.A.5:12-1 *et seq.*; Massachusetts Gaming Commission. https://massgaming.com/about/expanded-gaming-act/

[182] LA Rev Stat. *§ 27:11*

[183] 2018 Annual Report of the Ohio Casino Control Commission. https://casinocontrol.ohio.gov/Portals/0/Communications/2018%20OCCC%20Annual%20Report%20-%20web%20version.pdf; Ohio Revised Code, Chapter 3772.02(B)

take advantage of the time-honored gaming regulatory experience of NCEL and entrust this agency with responsibility for expanded forms of gaming. In our judgment, this is the most efficient and effective means of implementing sports betting regulation as well as the regulation of other new gaming activities in the future.

Conversely, the creation of a separate regulatory agency would create significant start-up costs and ongoing expenses that would, to some degree, be duplicative. Moreover, two agencies with separate responsibilities over different segments of gaming are more likely to engender policy differences that would otherwise be avoidable in a one-agency system.

Spectrum also recommends revising the structure of the commission to reduce the number of its members from nine to five, mandate a bipartisan body, and add a lawyer to the specific experiential requirements. As noted, the present composition of nine members may be perceived as unwieldy and not organized to perform at maximum efficiency. We believe these modifications will enhance public confidence in the integrity of the regulatory process as new gaming operations are implemented.

We emphasize that in evaluating the appropriate regulatory structure for expanded gaming operations it is necessary to distinguish between the Lottery Commission with the Commissioners presiding over the agency and the NCEL staff that is responsible for conducting day-to-day lottery operations. The proven expertise and vast experience of the latter group should not be discounted in the final determination of this issue.

Appendix 1: Individuals Interviewed

Spectrum interviewed the following individuals for this study, some of whom were interviewed more than once and by multiple project team members.

Figure 88: Subjects interviewed for this report

Last	First	Affiliation	Title
Barber	R. Scott	Caesars Entertainment	Regional President
Bauguess	Hayden	North Carolina Lottery Commission	Director of Government Affairs
Bogot	William	Fox Rothschild LLP	Partner
Caldwell Jr.	Edmond W.	NC Sheriffs' Association	Executive Vice President & General Counsel
Chunko	Ann	United States Trotting Association	Pedigrees & Research
Cozort Sr.	Jackson	North State Strategies	Lobbyist for Casino Party Aces, Inc.
Davis	Ann Hines	Law Office of Ann Hines Davis	Principal; attorney for Tribal Casino Gaming Enterprise
Easter	Debbie	Virginia Thoroughbred Association	Executive Director
Elliott	Jim	Maiden Amusement Co.	Secretary-Treasurer
Hurlstein	Stina	Michigan Gaming Control Board	Departmental Analyst
Kirk	Quan	North Carolina Education Lottery	General Counsel
Lermond, Jr.	David	Virginia Racing Commission	Executive Director
Linnell	Curtis	Thoroughbred Racing & Protective Bureau	Executive Vice President
Magee	Michael	Casino Party Aces, Inc.	Owner
May	Steve	Kentucky Horse Racing Commission	Director of Pari-Mutuel Wagering
Poole	Christopher Scott	NC Alcohol Law Enforcement	Special Agent in Charge of Gaming Section
Poole	Cathleen J.	NC Alcohol Law Enforcement	Administrator / Gaming Section
Ravit	Alexa	The Jockey Club	Communications Coordinator
Records	John	Retired	Former Lone Star Park executive
Roberts	Allen	NC Alcohol Law Enforcement	Agent
Tanner	Mike	United States Trotting Association	Executive Vice President and General Counsel
Vickery III	Charles	Independent consultant	Racing and gaming consultant
Waterman	Scot	ADASAW, LLC	Proprietor

Source: Spectrum Gaming Group

Appendix 2: The Regional Economic Models Inc. PI+ Model

The PI+ by Regional Economic Models, Inc. ("REMI") used to forecast the economic impacts of currently allowed gaming in North Carolina, as described in this report, is a structural economic forecasting and policy analysis model. It integrates input-output, computable general equilibrium, econometric and economic geography methodologies. The model is dynamic, with forecasts and simulations generated on an annual basis and behavioral responses to compensation, price, and other economic factors.

The model consists of thousands of simultaneous equations with a structure that is relatively straightforward. The exact number of equations used varies depending on the extent of industry, demographic, demand, and other detail in the specific model being used. The overall structure of the model can be summarized in five major blocks: (1) Output and Demand, (2) Labor and Capital Demand, (3) Population and Labor Supply, (4) Compensation, Prices, and Costs, and (5) Market Shares. The blocks and their key interactions are shown in Figure 89 and Figure 90.

Figure 89: REMI model linkages

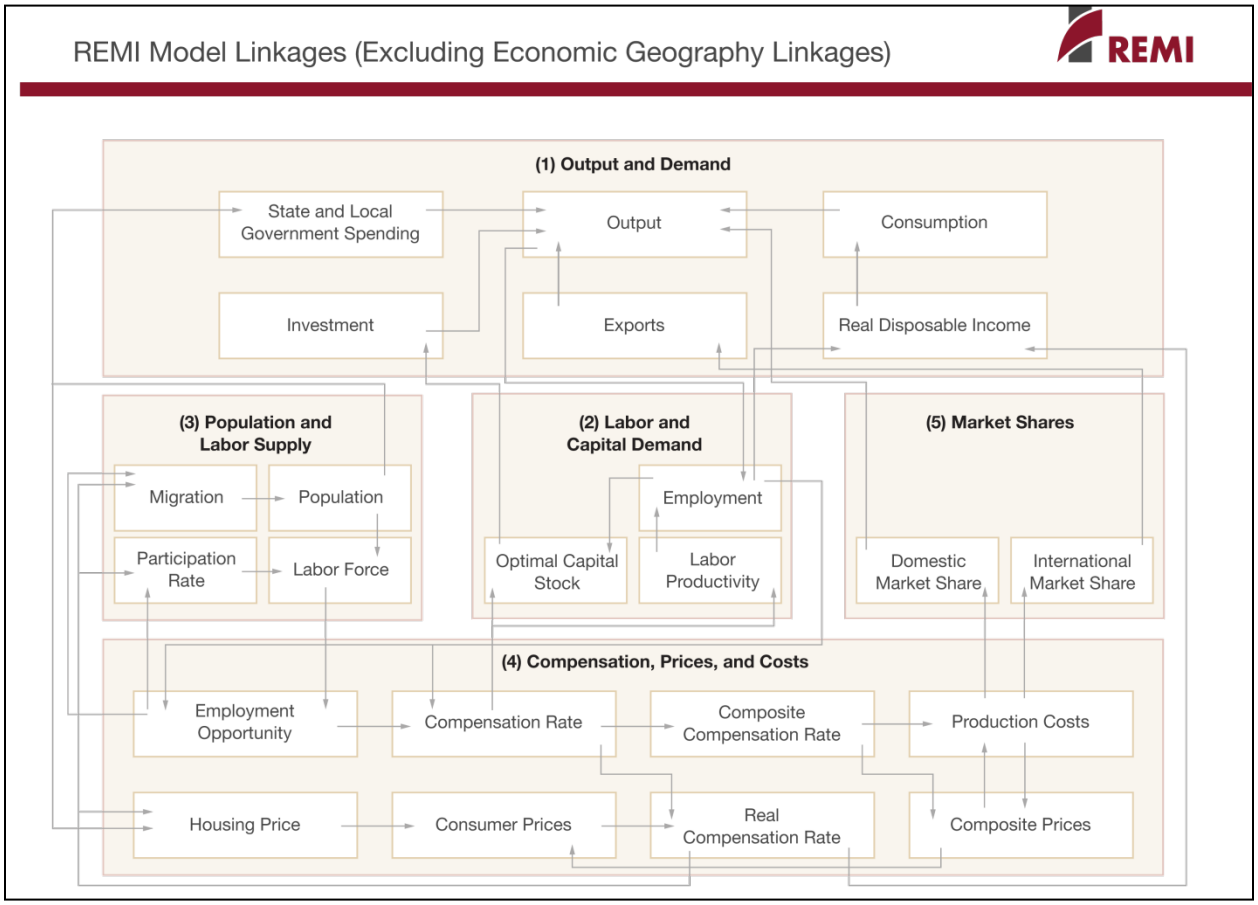
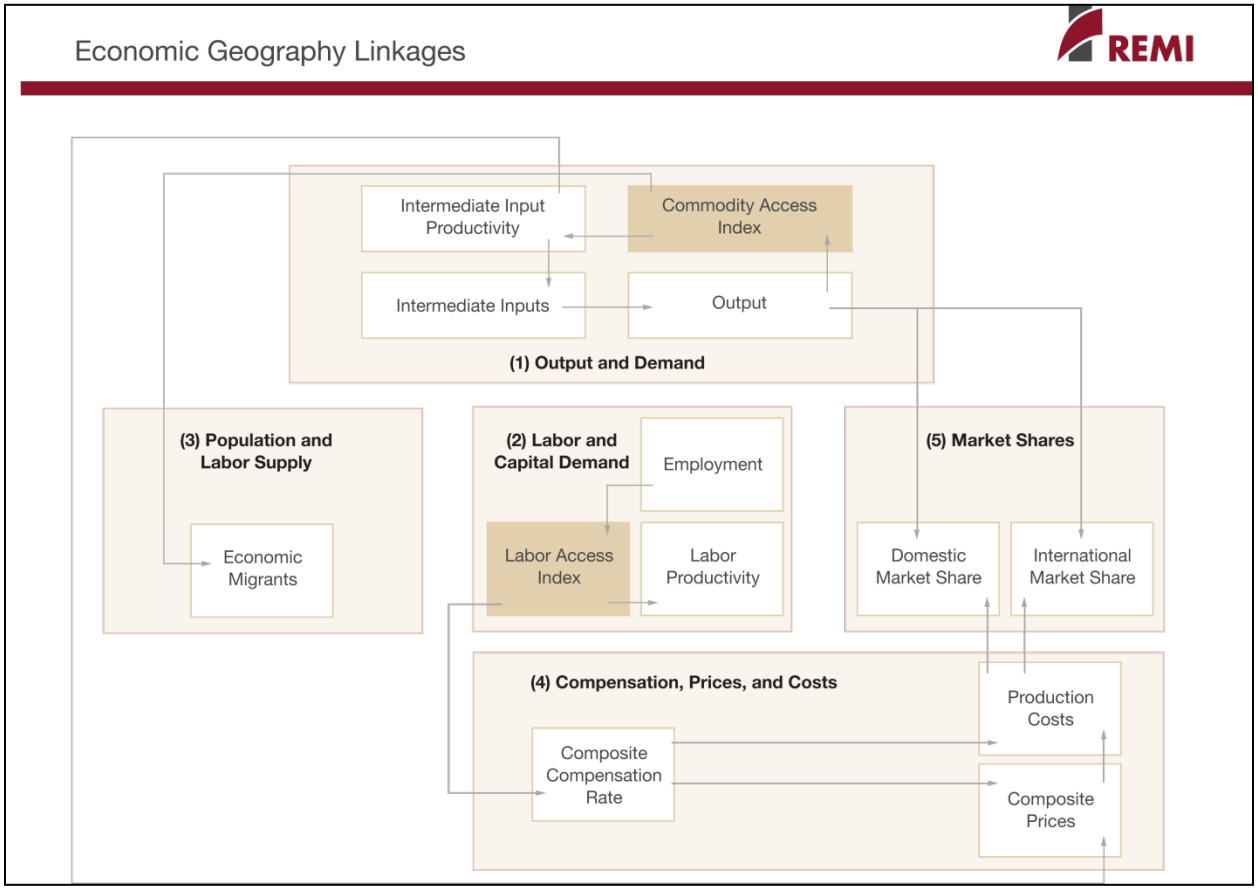


Figure 90: PI+ model – economic geography linkages



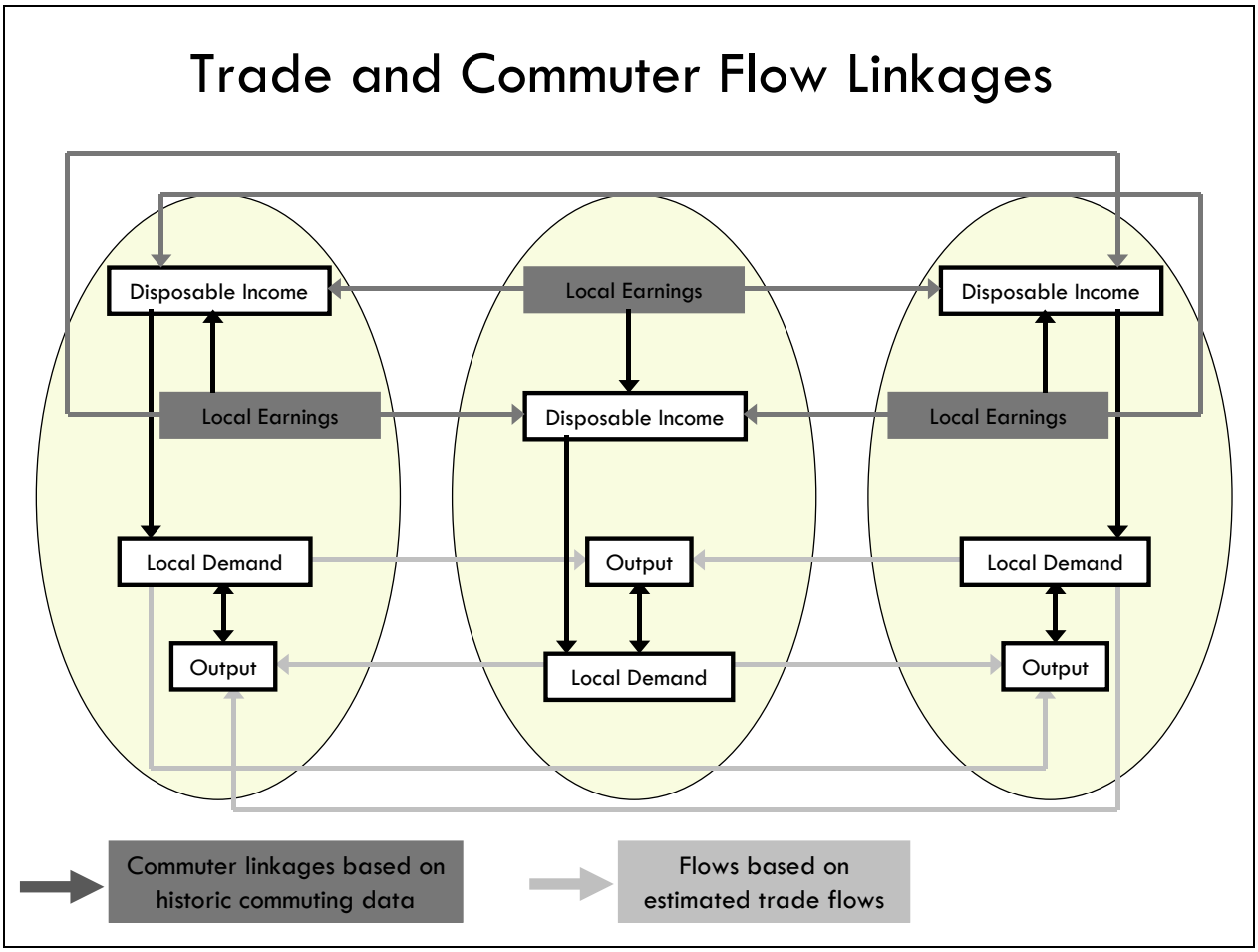
The Output and Demand block consists of output, demand, consumption, investment, government spending, exports, and imports, as well as feedback from output change due to the change in the productivity of intermediate inputs. The Labor and Capital Demand block includes labor intensity and productivity as well as demand for labor and capital. Labor force participation rate and migration equations are in the Population and Labor Supply block. The Compensation, Prices, and Costs block includes composite prices, determinants of production costs, the consumption price deflator, housing prices, and the compensation equations. The proportion of local, inter-regional, and export markets captured by each region is included in the Market Shares block.

Models can be built as single region, multi-region, or multi-region national models. A region is defined broadly as a sub-national area, and could consist of a state, province, county, or city, or any combination of sub-national areas.

Single-region models consist of an individual region, called the home region. The rest of the nation is also represented in the model. However, since the home region is only a small part of the total nation, changes in the home region do not have an endogenous effect on the variables in the rest of the nation.

Multi-regional models have interactions among regions, such as trade and commuting flows. These interactions include trade flows from each region to each of the other regions. These flows are illustrated for a three-region model in Figure 91.

Figure 91: Trade and commuter flow linkages



Multiregional national models also include a central bank monetary response that constrains labor markets. Models that only encompass a relatively small portion of a nation are not endogenously constrained by changes in exchange rates or monetary responses.

Block 1. Output and Demand

This block includes output, demand, consumption, investment, government spending, import, commodity access, and export concepts. Output for each industry in the home region is determined by industry demand in all regions in the nation, the home region's share of each market, and international exports from the region.

For each industry, demand is determined by the amount of output, consumption, investment, and capital demand on that industry. Consumption depends on real disposable income per capita, relative prices, differential income elasticities, and population. Input

productivity depends on access to inputs because a larger choice set of inputs means it is more likely that the input with the specific characteristics required for the job will be found. In the capital stock adjustment process, investment occurs to fill the difference between optimal and actual capital stock for residential, non-residential, and equipment investment. Government spending changes are determined by changes in the population.

Block 2. Labor and Capital Demand

The Labor and Capital Demand block includes the determination of labor productivity, labor intensity, and the optimal capital stocks. Industry-specific labor productivity depends on the availability of workers with differentiated skills for the occupations used in each industry. The occupational labor supply and commuting costs determine firms' access to a specialized labor force.

Labor intensity is determined by the cost of labor relative to the other factor inputs, capital and fuel. Demand for capital is driven by the optimal capital stock equation for both non-residential capital and equipment. Optimal capital stock for each industry depends on the relative cost of labor and capital, and the employment weighted by capital use for each industry. Employment in private industries is determined by the value added and employment per unit of value added in each industry.

Block 3. Population and Labor Supply

The Population and Labor Supply block includes detailed demographic information about the region. Population data is given for age, gender, and race, with birth and survival rates for each group. The size and labor force participation rate of each group determines the labor supply. These participation rates respond to changes in employment relative to the potential labor force and to changes in the real after-tax compensation rate. Migration includes retirement, military, international, and economic migration. Economic migration is determined by the relative real after-tax compensation rate, relative employment opportunity, and consumer access to variety.

Block 4. Compensation, Prices and Costs

This block includes delivered prices, production costs, equipment cost, the consumption deflator, consumer prices, the price of housing, and the compensation equation. Economic geography concepts account for the productivity and price effects of access to specialized labor, goods, and services.

These prices measure the price of the industry output, taking into account the access to production locations. This access is important due to the specialization of production that takes place within each industry, and because transportation and transaction costs of distance are significant. Composite prices for each industry are then calculated based on the production costs

of supplying regions, the effective distance to these regions, and the index of access to the variety of outputs in the industry relative to the access by other uses of the product.

The cost of production for each industry is determined by the cost of labor, capital, fuel, and intermediate inputs. Labor costs reflect a productivity adjustment to account for access to specialized labor, as well as underlying compensation rates. Capital costs include costs of non-residential structures and equipment, while fuel costs incorporate electricity, natural gas, and residual fuels.

The consumption deflator converts industry prices to prices for consumption commodities. For potential migrants, the consumer price is additionally calculated to include housing prices. Housing prices change from their initial level depending on changes in income and population density.

Compensation changes are due to changes in labor demand and supply conditions and changes in the national compensation rate. Changes in employment opportunities relative to the labor force and occupational demand change determine compensation rates by industry.

Block 5. Market Shares

The market shares equations measure the proportion of local and export markets that are captured by each industry. These depend on relative production costs, the estimated price elasticity of demand, and the effective distance between the home region and each of the other regions. The change in share of a specific area in any region depends on changes in its delivered price and the quantity it produces compared with the same factors for competitors in that market. The share of local and external markets then drives the exports from and imports to the home economy.