



# EXPERT WITNESS REPORT:

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## Impact of Unregulated Gaming on Virginia's Gaming Policy

Prepared for Office of Attorney General, Commonwealth of Virginia  
September 30, 2022



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# Introduction

## A. Qualifications of Spectrum Gaming Group

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

We have provided our expertise in 43 US states and territories and in 48 countries on six continents. Our clients include 24 US state and territory governments, including six lotteries, eight national governments, 25 Native American entities, national and international gaming companies of all sizes, suppliers, financial institutions, developers and other gaming-related entities.

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

Spectrum serves as Executive Director of the National Council of Legislators from Gaming States, which, like Spectrum, is neither a gambling proponent nor gambling opponent. 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. We will not accept, and have never accepted, engagements that seek a preferred result.

Spectrum has been a leading consultant in the gaming industries for 27 years. The expert consultant involved in this report is Michael J. Pollock, Managing Director of Spectrum and former Public Information Officer for the New Jersey Casino Control Commission. His qualifications are detailed in Appendix A.

Spectrum 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
- District of Columbia Lottery
- 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
- Resilient Louisiana Commission, Gaming Task Force
- Rhode Island Lottery
- 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

## **B. Purpose of Engagement**

The Office of the Attorney General of Virginia retained Spectrum to serve as an expert witness in Civil Case No. CL21-207, the matter of Sadler Brothers Oil Company, doing business as Sadler Travel Plaza, Slip-In Food Marts, Inc. and CHN, LLC v. the Commonwealth of Virginia, et. al.

In performing this engagement, the Attorney General's Office provided information regarding the nature of the dispute. In addition, Spectrum reviewed information in the public domain, documents produced in this matter, and other materials cited in this report, and played examples of the games in question in this litigation. Spectrum also relied upon its independent research and analysis, professional training, and decades of experience in the lottery and gaming industries.

## C. Core Findings of Engagement

The research conducted by Spectrum Gaming Group leads to the following findings:

- The unregulated gaming devices that have spread throughout the Commonwealth of Virginia, by any reasonable measure, meet the definition of a slot machine or gambling device, irrespective of what they look like or what they are called. They operate like slot machines under a business model that historically governs slot machines.
- Like their regulated counterparts in casinos, these machines rely on patrons to wager money in the hope of winning more money, thus meeting the core definition of gambling. A material number of calls in recent years to the Virginia Council on Problem Gambling cite these machines, which further supports the conclusion that these machines are gambling devices.
- From the standpoint of public policy, the presence of “skill” in these machines does not, in any meaningful way, exempt them from the need for regulation. If these very same machines were installed on regulated casino floors in Virginia, or any other state, they would be required to meet the standards and regulations that govern legal gambling in that state.
- The growing presence of these machines threatens to cannibalize both the emerging casino industry and the established Virginia Lottery, and could undermine the Lottery’s efforts to build a successful brand.
- The widespread presence and caustic effect of these machines throughout Virginia diminishes the value of a gaming license in Virginia and seriously threatens the ability of Virginia to meet its stated goal of developing a robust, regulated and healthy gaming industry.
- In turn, the combination of cannibalization and the diminished value of a gaming license will inevitably lead to less revenue and less capital investment by gaming operators, which enhances the risk of lower employment, less tax revenue, fewer tourist visits and other results that are antithetical to Virginia’s policy goals.

## Background, Issues

In the summer of 2017, the first unregulated gaming devices began appearing in various locations throughout the Commonwealth of Virginia, and within two years an estimated 4,500 of the machines were reported.<sup>1</sup> That number has continued to grow, reaching more than 8,600 on the floors of convenience stores, gas stations and other locations by June 2022, while more than 1,500 additional machines were warehoused.<sup>2</sup>

The dramatic expansion of unregulated gaming machines throughout Virginia is reflective of a national phenomenon that is affecting multiple states. Regardless of what the machines look like or what they are called, all are, in essence, slot machines. Players insert money and play the game with the hope of winning more than they put in.

The proliferation of distributed gaming devices is widespread. For example:

- In Kentucky, seven casino-like facilities offer a total of 5,569 regulated historical horse racing machines in the absence of state-regulated slot machines in that state.<sup>3</sup>
- In North Carolina, tens of thousands of illegal slot machines of various types operate in retail establishments throughout the state in the absence of state-regulated slot machines in that state.<sup>4</sup>
- In Pennsylvania, the number of machines has grown from barely 700 in 2017 to nearly 12,000 in 2022, and they can be found in all 67 counties, with more than half the counties having at least 100 machines each.<sup>5</sup>
- Scientific Games, a contracted supplier to the Pennsylvania Lottery, reported earlier this year that “In 2017, 53 of 67 (Pennsylvania) counties had at least one machine at retail. In 2022, all 67 counties have at least one machine. In 2017, not a single county in Pennsylvania had more than 100 machines – there are now 36, over half, of the counties with more than 100 machines as of March 2022. This has been an unprecedented and extensive influx of unregulated competition into the Pennsylvania Lottery retail network.”<sup>6</sup>

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<sup>1</sup> Kevin Hall, Briefing for House Appropriations & Senate Finance Committees Sept. 16-17, 2019. [https://ihodvirginiageneralassembly.s3.amazonaws.com/agenda\\_block\\_docs/attaches/000/000/428/original/III\\_-\\_Lottery.pdf?1568640091](https://ihodvirginiageneralassembly.s3.amazonaws.com/agenda_block_docs/attaches/000/000/428/original/III_-_Lottery.pdf?1568640091)

<sup>2</sup> Virginia Alcoholic Beverage Control Authority, June 2022 report on distributed gaming machines

<sup>3</sup> Kentucky Horse Racing Commission, “June [2022] Pari-Mutuel Report,” <https://khrc.ky.gov/Documents/June%20Pari-Mutuel%20Report.pdf>

<sup>4</sup> Spectrum interview with Christopher Scott Poole, Special Agent in Charge of the Gaming Section of Alcohol Law Enforcement, a division of the North Carolina Department of Public Safety, February 2020.

<sup>5</sup> Candy Woodall, “Fight over skill games, ‘illegal gambling’ prompts Pa. lawmakers to return campaign cash,” GoErie.com, June 14, 2021. <https://www.goerie.com/story/news/2021/06/14/pa-lawmakers-return-campaign-cash-fight-over-skill-games/7654022002/>

<sup>6</sup> “Pennsylvania ‘Skill Machines’ and Lottery Revenue,” Impact Analysis Methodology And Results, 2022 Update, Scientific Games. <https://www.pennbets.com/wp-content/uploads/2022/08/Pennsylvania-Skill-Machines-and->

- The Michigan Gaming Control Board has joined forces with the Michigan Liquor Control Commission and the Michigan Department of Attorney General to develop a strategy to target the expansion of unauthorized gaming by targeting businesses that allow such machines, while educating players as to the risks.<sup>7</sup>
- In Missouri, an estimated 14,000 unregulated devices can be found throughout the state at gas stations, taverns and other locations.<sup>8</sup>

The issues and concerns are generally parallel across the impacted states, including:

- As such games are neither licensed nor regulated, there is no limit to their number or locations.
- They harm the image of regulated gaming, and they undermine the regulated gaming industry's extensive efforts to comply with the law, regulations and public policy.
- As they so closely resemble legal, regulated casino slot machines and are particularly convenient to residents in their surrounding communities, these unregulated slot machines cannibalize revenue from licensed slot machines, and are designed to compete against regulated offerings.
- As they often co-locate with lottery retailers, as well as operate near such retailers, they also cannibalize lottery sales.
- They offer no controls over responsible-gaming practices, such as adherence to exclusion lists.
- They have no requirements for surveillance camera coverage.
- They offer no apparent controls to prevent underage play.

As to the last point, although the machines do prominently display age limits on their screens, these machines are generally in locations where cashiers and other personnel cannot reasonably be expected to police the age of participants. Unlike, say, customers who purchase cigarettes or alcoholic beverages at retail locations, players at these machines are generally not required to interact with store personnel prior to playing the machines. By contrast, our in-person research shows that patrons who enter a licensed facility such as Rosie's in Vinton, VA, are confronted by a security guard at the entrance who checks ID for all patrons.

Although there was no way of knowing, such unregulated slot machines did not appear to have ever been tested by an approved state-run or private testing laboratory – as regulated slot machines are – to ensure their compliance with standards, nor was there any indication that any standards whatsoever exist.

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[Lottery-Revenue-Impact-Analysis-Methodology-and-Results-2022-Update-3.pdf](#) (accessed September 7, 2022)

<sup>7</sup> Melanie Porter, "Michigan Regulators Want to Pull the Plug on Illegal Gaming Machines," *Gambling News*, January 14, 2022. <https://www.gamblingnews.com/news/michigan-regulators-want-to-pull-the-plug-on-illegal-gaming-machines/>

<sup>8</sup> "Editorial: Unregulated Gambling Machines Appear to be Untouchable in Missouri," *Saint Louis Post-Dispatch*, June 6, 2022. [https://www.columbiainmissourian.com/opinion/guest\\_commentaries/editorial-unregulated-gambling-machines-seem-to-be-untouchable-in-missouri/article\\_cde1c89e-e4f2-11ec-bcbc-938617490269.html](https://www.columbiainmissourian.com/opinion/guest_commentaries/editorial-unregulated-gambling-machines-seem-to-be-untouchable-in-missouri/article_cde1c89e-e4f2-11ec-bcbc-938617490269.html)

- In Virginia, lottery regulations prohibit the offering of any slot machines or other equipment “for sale, lease, distribution, or use in a facility without it having been tested and certified by an independent certified testing laboratory.”<sup>9</sup>
- While the Pace-O-Matic games are reported to have been certified by an “approved” Virginia testing laboratory,<sup>10</sup> no further information was found to support that claim or identify that testing laboratory.

The Covid-19 pandemic illustrates another policy concern regarding unregulated slot machines, as they were simply not subject to the same restrictions as their regulated counterparts. The unregulated slot machines, and the stores that operate them, were clearly either in violation of Covid-19 guidelines that mandate social distancing or they elected to ignore such controls. Had such guidelines been adhered to, only one machine would have been allowed to operate in such small locations.

A prominent trade publication noted at the height of the pandemic:<sup>11</sup>

On Monday, March 16 (2020), the Pennsylvania Gaming Control Board ordered all casinos in the state which had not already done so to shut down, part of the larger nationwide effort to slow the spread of the deadly coronavirus. The following day, the gaming boards in Missouri and Kansas followed suit, and in less than a week, the entire legal gaming industry was at a standstill.

Many in the industry had initially thought that shutting down two or three slot machines between each active game would allow casinos to remain open with social distancing, but after the Centers for Disease Control revealed that the Covid-19 virus can survive up to two or three days on stainless steel, plastic and other nonporous surfaces – like the player interfaces on gaming machines – an industry shutdown was unavoidable.

But as recently as April 10, convenience stores, pizza parlors, gas stations and other retail locations in Pennsylvania, Missouri and elsewhere still had live gaming machines operating. They are the so-called “skill games” that had been cropping up in several states prior to the crisis, the subject of an effort launched in February to battle them by the Association of Gaming Equipment Manufacturers (AGEM) and the American Gaming Association (AGA).

Clearly, the combined similarities and contrasts between regulated and unregulated slot machines create a problematic landscape for regulated casino gaming operators:

- As these unregulated slot machines so closely resemble legal, regulated slot machines and have the unfair competitive advantage of being particularly convenient to residents throughout Virginia, they clearly cannibalize legal slot machine revenue.
- As these slot machines are not governed by the rules that licensed casino operators must abide by in order to maintain the privilege of licensure, they undermine public confidence in

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<sup>9</sup> <https://casetext.com/regulation/virginia-administrative-code/title-11-gaming/agency-5-virginia-lottery-board/chapter-90-effective-until9102022casino-gaming/section-11vac5-90-150-slot-machines> (accessed September 5, 2022)

<sup>10</sup> <https://vaabc.com/blog/the-abcs-of-gambling/> (accessed September 5, 2022)

<sup>11</sup> Frank Legato, ‘Skill Games’ Still Defying Shutdown,” *Global Gaming Business Magazine*, April 20, 2020, <https://ggbmagazine.com/article/skill-games-still-defying-shutdown/>



gaming, as adults would clearly lump them into the same category as legal, regulated slot machines.

- As there are no statutory or regulatory limits on the number of unregulated slot machines in Virginia, nor are there limitations on the number or type of establishment that can house them, these issues can only worsen over time, thus further eroding revenue and value for authorized casino licensees.

## A. Principles of Licensure Are at Risk

While the litany of concerns regarding unregulated gaming is largely universal among the impacted states, the issues raised by these unregulated games are particularly acute in Virginia, as the rise of these machines parallels the Commonwealth’s ongoing efforts to build a responsible, robust and regulated gaming industry under the auspices of the Virginia Lottery.

The rules in Virginia that govern the emerging casino and sports-betting verticals were clearly established to ensure that the licensees and participants would earn the confidence of the gaming public by earning the right to participate in these new forms of gaming. We at Spectrum Gaming Group state that emphatically, as we have worked closely with the Virginia Lottery to investigate applicants for sports-betting licenses, and at this writing, we remain under contract to the Lottery.

The rules that Virginia adheres to in its licensing and regulatory processes are universal among jurisdictions that seek to ensure public confidence in gaming. Stated simply, those governing principles are:

- No individual or corporate entity has an automatic right to a gaming license, which is considered a privilege to be earned; and
- Such licenses are granted to those who have affirmatively demonstrated their “good character, honesty and integrity.”

That phrase – “good character, honesty and integrity” – has been a foundation of effective gaming policy for nearly a half-century, as it was drafted into the New Jersey Casino Control Act in 1977 when that state became the first US jurisdiction outside of Nevada to authorize legally sanctioned casino gaming, and those words remain in that statute today, with language that even requires that suppliers to the industry “establish their good character, honesty and integrity by clear and convincing evidence and shall provide such financial information as may be required.”<sup>12</sup>

That principle has emerged as a mainstay in multiple jurisdictions, all based on the premise that participation in authorized, regulated gaming is a privilege granted to those who affirmatively demonstrate that they meet these universal standards. The international law firm Paul Hastings LLP notes:

In the states where gambling is legalized, regulatory schemes are complex and comprehensive. As a result, state licensing regimes are typically intrusive and require deep scrutiny of the licensee applicant. The purpose of the suitability review is to ensure that licensees are *honest, and of good character and integrity*. [Emphasis added.] For example, in Nevada, casino licenses are not granted unless applicants show that they

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<sup>12</sup> “Casino Control Act,” P.L.1977, c.110 (C.5:12-1 et seq.).  
[https://www.njleg.state.nj.us/2012/Bills/PL13/27\\_.HTM](https://www.njleg.state.nj.us/2012/Bills/PL13/27_.HTM) (accessed December 17, 2020)

possess adequate business acumen, competence and experience, and that they have secured adequate and appropriate financing. See Nev Rev Stat section 463.170(3). In New Jersey, as another example, key employees, who include, inter alia, pit bosses, casino managers and casino operators, must undergo a rigorous license application process that shows the financial stability, integrity and responsibility of the person, and the good character and reputation of the person for honesty and integrity. See NJAC 19:41A-5.5.<sup>13</sup>

The governing statute in Virginia distills the policy in precise language:<sup>14</sup>

Casino gaming shall be licensed and permitted as herein provided to benefit the people of the Commonwealth. The (Lottery) Board is vested with control of all casino gaming in the Commonwealth, with authority to prescribe regulations and conditions under this chapter. The purposes of this chapter are to assist economic development, promote tourism, and provide for the implementation of casino gaming operations of the highest quality, honesty, and integrity and free of any corrupt, incompetent, dishonest, or unprincipled practices.

... The conduct of any casino gaming and entrance to such establishment is a privilege that may be granted or denied by the Board or its duly authorized representatives in its discretion in order to effectuate the purposes set forth in this chapter. Any proposed site for a casino gaming establishment shall be privately owned property subject to the local land use and property taxation authority of the eligible host city in which the casino gaming establishment is located.

The gauntlet that casino applicants in Virginia must negotiate to earn that privilege of licensure includes securing support via a local referendum<sup>15</sup> as well as payment of a \$15 million license fee.<sup>16</sup>

The process as designed places the burden on applicants to demonstrate they have met these high standards. In turn, those applicants earn something of significant value in return: The ability to participate in a marketplace in which government limits competition by defining the number and location of all gaming facilities.

While Virginia licensees pay a \$15 million license fee, incur the cost of a local referendum, and endure an extensive licensing process, there will be only five of them, geographically dispersed across the Commonwealth. That limited number of licenses in locations that will have minimal competition between them, offers some economic certainty as to the expected capital investment in casinos. If a licensed casino operator performs well, it need not fear competition within its market area because of the fundamental premise behind the licensing process: No one has a right to be a gaming operator. Participation is a privilege earned by operators, and granted by the Commonwealth.

The existence – and continued growth – of unlicensed gaming undermines that principle and puts capital investment at risk. As these unregulated slot machines are not governed by the rules that licensed casino operators must abide by in order to maintain the privilege of licensure, they not only risk the level

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<sup>13</sup> “Land-based gambling in USA,” Paul Hastings LLP, August 1, 2019.

<https://www.lexology.com/library/detail.aspx?g=f6b68b4d-b1f0-4f59-9998-d256da2601f5>

<sup>14</sup> Code of Virginia, Chapter 41, Casino Gaming <https://law.lis.virginia.gov/vacodefull/title58.1/chapter41/> (accessed August 29, 2022)

<sup>15</sup> Ibid.

<sup>16</sup> <https://www.valottery.com/aboutus/casinosandsportsbetting/casinos#:~:text=Facility%20Operator's%20License%3A,the%20issuance%20of%20a%20license.> (accessed August 29, 2022)

of initial capital investment in licensed facilities, but they also undermine public confidence in gaming and cause significant, potentially permanent harm to licensed gaming.

Veteran gaming regulator Cyrus Pitre, Chief Enforcement Counsel at the Pennsylvania Gaming Control Board, made the case as to why individuals and corporate entities associated with unregulated slot machines have not demonstrated the requisite integrity and should be denied licensure at a hearing in early 2022. In doing so, Pitre explained the risks that unlicensed gaming has for licensed gaming:<sup>17</sup>

If the Board permits these Applicants for a VGT Principal License to have their cake and eat it too, the OEC is of the opinion that doing so would create adverse result. The Board would be creating two classes of slot machines. The conduct of which would be both considered suitable conduct. One would be slot machines and VGTs played in casinos and licensed truck stops, which are strictly regulated and have player safeguard. The other would be unregulated and unlicensed slot machines played without player safeguards and any of the protections of the Gaming Act, the Video Gaming Act and the Board's regulations. This would create an untenable and unfair environment for the regulated slot and VGT industries in this Commonwealth who have paid the requisite license fees, local and state taxes, yet who would have to compete with unregulated and untaxed slot machines and VGTs. The operation of which, the Board will have, in effect, stamped as suitable conducted. Moreover, the sources of funding are key to protecting the integrity of the gaming industry.

The issue and the attendant risks as outlined in Pennsylvania are precisely the same in Virginia. Without statutory or regulatory limits on the number of such unregulated slot machines – and without limitations on the number or type of establishment that can house them – these issues can only worsen over time, thus further eroding revenue and value for authorized casino licensees.

## **B. Unlevel Playing Field for Casino Operators**

The plethora of unregulated slot machines that can be found throughout Virginia operate outside the walls of what will be Virginia's fully regulated, licensed casino industry. Yet, even though these machines bear the hallmarks of regulated slot machines, they do not have to abide by the rules that govern their regulated brethren.

The ability of unregulated suppliers and local facilities to operate slot machines in Virginia affords them a considerable competitive advantage in that they do not have the financial burden of requiring – among many other aspects – security, surveillance, responsible-gaming programs, and minimum internal control standards that are required of the state's licensed casino operators.

Their advantages are considerable. For example, slot machines in multiple jurisdictions have to offer pedestrian pathways, and any seating must be fixed. The historic logic behind such rules is to prevent panic during a fire or other hazard. The unregulated machines, which can be found jammed together in narrow aisles, with movable seats, are clearly not governed by such rules.

The absence of such regulatory requirements offers a significant cost advantage to the unregulated operators, and their ability to place the machines at any location within Virginia offers a

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<sup>17</sup> Pennsylvania Gaming Control Board hearing, January 19, 2022, p. 21-22  
[https://gamingcontrolboard.pa.gov/files/meetings/Meeting\\_Transcript\\_20220119\\_Denial\\_of\\_VGT\\_Operators\\_Licenses\\_%20Lendell\\_Gaming,\\_Better\\_Bets\\_Ventures,\\_Venture\\_Gaming,.pdf](https://gamingcontrolboard.pa.gov/files/meetings/Meeting_Transcript_20220119_Denial_of_VGT_Operators_Licenses_%20Lendell_Gaming,_Better_Bets_Ventures,_Venture_Gaming,.pdf) (accessed September 29, 2022)

dramatic market advantage. The unregulated machines are, by definition, much closer to where consumers live and shop than would be the regulated, licensed machines that are required by statute and regulation to be on approved casino floors where they are subject to all of the aforementioned controls.

From the vantage point of the casino industry, unregulated slot machines pose a threat because:

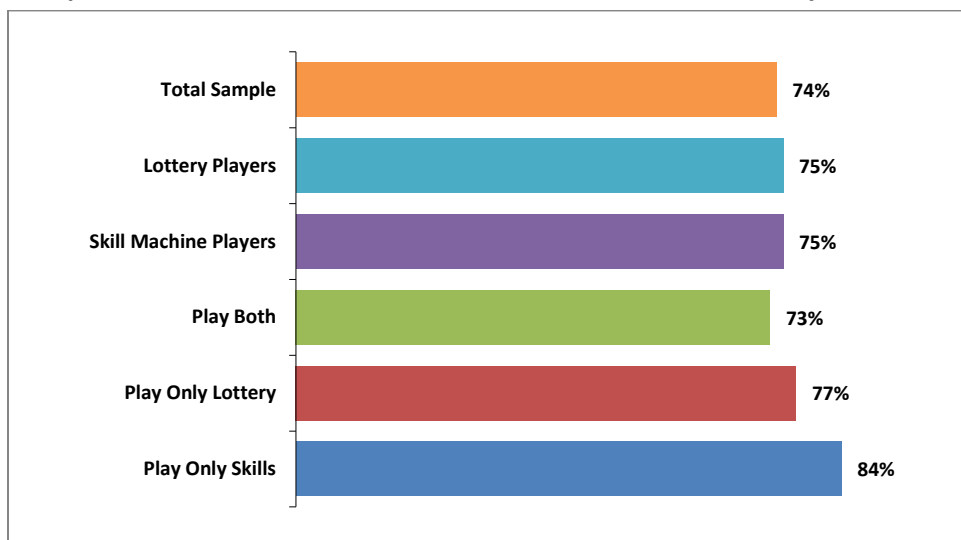
- They target the adult population with an offering that operates in a similar fashion, and are largely more accessible to more of these adults, thus creating a serious threat of cannibalization.
- The absence of regulation and taxation creates a cost advantage for these unregulated machines, allowing for a greater distribution of their product, as these unregulated providers can offer powerful incentives to local retailers and other venues.

The convenience of unregulated slots, combined with their resemblance to legal slot machines, creates a potent risk for Virginia’s emerging casino industry. Two surveys of more than 2,000 Virginia adults each, known as “waves,” were commissioned by the Virginia Lottery in 2019. The surveys were conducted by Aeffect, an Illinois-based research firm contracted by the Virginia Lottery. According to Aeffect, 2012 adults responded to an online survey conducted between July 2-18, 2019. The margin of error was equal to or less than +/- 2 percentage points.<sup>18</sup> Aeffect endeavored to ensure that its survey covered all regions of Virginia.

The casino industry in Virginia would be particularly concerned about the following finding in the survey: “About three-quarters of all respondents (72%) believe that slot machines and Queen/skill machines are basically the same thing.”<sup>19</sup>

The first Aeffect study noted the following:

**Figure 1: Respondents who Believe Slots and Skill Machines Are Same, July**



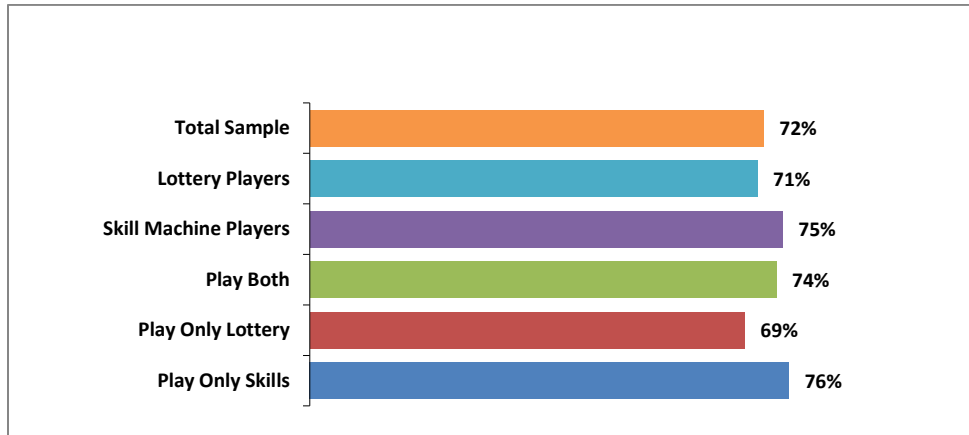
<sup>18</sup> Virginia Lottery Skill Machine Research, Prepared by Aeffect, Inc. July 2019, p. 5-7

<sup>19</sup> Ibid. p. 36

Source: Aeffect Study, July 2019

The same question was asked in the second wave, and produced similar results:

**Figure 2: Respondents who Believe Slots and Skill Machines Are Same, November**



Source: Aeffect Study, November 2019

### C. Threats to Virginia Lottery

The two 2019 surveys conducted by Aeffect also have profound implications for the Virginia Lottery. The Executive Summary of the July 2019 Aeffect report notes:<sup>20</sup>

- There is some degree of confusion about whether both machines are legal to play in Virginia.
- Many people believe that skill machines are approved by the state government and sponsored by the Lottery. Accordingly, one-quarter believe that revenue from skill machine play is funneled back in to the common fund for education.
- At present, 43% percent of respondents are aware of skill machines, but only 17% have played them.
- Awareness and usage of skill machines is significantly higher among younger people (18-34 years old) and among people with incomes below \$100K.
- Counter to initial assumptions, there is no significant difference in the level of awareness or usage of skill machines by region.
- Though lottery players are more aware of skill machines than non-lottery players, only 23% of lottery players report having played skill machines so far. That being said, it is important to recognize that lottery players represent a large share of the skill machine player base.
- 22% of people who have played both skill machines and Lottery games indicate that they will spend *more* on Virginia Lottery games in the future as a result of skill machine play; this may be a result of the fact that some perceive skill machines to be sponsored by the Lottery.

<sup>20</sup> Ibid. p. 8

The second survey, conducted in November 2019 with roughly the same number of respondents noted the following in its Executive Summary:<sup>21</sup>

- Overall, awareness and usage of skill machine games has significantly increased since July.
- Usage of skill machines has increased in every region of the Commonwealth.
- Nearly half of Virginians now have a positive impression of skill machine games.
- Just under one-quarter of residents (23%) now play both Lottery and skill machine games., which is up significantly from the prior level of 14% in July.
- Awareness that skill machines are legal in Virginia has increased significantly, but the perception that skill machines and slot machines are basically the same thing has remained stable.
- Among people aware of skill games, about half (44%) believe that everyone has an equal chance of winning the games, while only 19% disagree. In addition, many believe that Virginia Lottery is the sponsor of skill machines.
- The demographic profile of skill machine players is increasingly clear from this second wave of research:
  - Males are drawn to skill machines more than women, and are spending significantly more on the machines. In July we saw a male user skew, but it is much more apparent in Wave 2.
  - Younger players are more drawn to skill machines than older players, however, the earlier assumption that young adults would be most receptive to skill games is now blurred by the growing appeal of the games among middle age adults 35-54. This suggests that the younger players were the earliest adopters and other age groups are now following their lead.

The surveys as conducted confirm that the Virginia Lottery confronts serious challenges from the unregulated slots. From the vantage point of an authorized state lottery, the threats are:

- The machines have significant placement within convenience stores, gasoline retailers, as well as bars and taverns. To a large degree, lotteries target the same retailers. As is evident in Virginia, many of the establishments that house these unregulated machines are also lottery retailers.
- As these machines are not regulated or taxed, they can generally offer more lucrative revenue-sharing arrangements with retailers.
- From the standpoint of public perception, a significant risk to the lottery is that the public might assume that these games are lottery products, and thus they can leverage off of the lottery's reputation for honesty and integrity in their products.

Those findings mean that unregulated machines derive a clear benefit from the efforts of the Virginia Lottery to fund education, promote responsible gaming and adhere to other state policies. At the same time, that data shows why there is a risk that potential problems associated with unregulated slot machines could adversely impact the lottery's brand and reputation.

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<sup>21</sup> Virginia Lottery Skill Machine Research – Part Two, Prepared by Aeffect, Inc. November 2019, p. 8

Lotteries in states in which unregulated slot machines are present have expressed several concerns about such games, including the risk of cannibalization. For example, in May of this year, the Missouri Lottery reported a 4.8 percent year-over-year decline in lottery sales at retailers that housed unregulated slot machines.<sup>22</sup>

The Pennsylvania Lottery is also reporting issues regarding cannibalization. As noted in a recent press account:<sup>23</sup>

The number of unregulated gaming machines in gas stations and convenience stores in Pennsylvania has grown dramatically over the past four years with no signs of a slowing trend, according to a new report commissioned by the state lottery.

A report titled “Pennsylvania Skill Machines and Lottery Revenue” found the number of so-called skill games machines in the Commonwealth has grown from 707 when data was first collected in September 2017, to 11,634 such devices in March 2022.

In 2017, 53 of 67 counties had at least one machine at a retail location but by this year, all 67 counties had at least one machine. The report found that in 2017, not a single county in Pennsylvania had more than 100 machines.

“There are now 36, over half, of the counties with more than 100 machines. This has been an unprecedented and extensive influx of unregulated competition into the Pennsylvania Lottery retail network,” the report found.

In an email to VIXIO Gambling Compliance on Thursday (September 1), Pennsylvania Lottery spokeswoman Ewa Swope said the lottery commissioned the study from its primary vendor Scientific Games to show the “dire impacts these illegal games are having on the proceeds that help our seniors in Pennsylvania.”

... As stated in the report, Swope said the appearance and expansion of games of skill machines across the state’s retail landscape has had a significant, negative impact on the revenue realized by the Pennsylvania Lottery.

“Skill machine penetration of the retail network has grown from less than 5 percent in 2017 to nearly 30 percent today,” she said.

In addition to this “wide” expansion, Swope said skill machines have expanded more deeply into the lottery’s retailer network, increasing the average and maximum number of machines found in individual retailers.

Even though scratch-off sales have consistently grown during this timeframe, the report found that the total revenue realized by the Commonwealth, which was \$14.9bn in scratch product between October 2017 and March 2022, was 4.4 percent lower than it could have been.

To put it another way, Swope said the machines have cost the Pennsylvania Lottery more than \$650m in top-line revenue since tracking began in late 2017, resulting in a loss of more than \$200m in revenue directed toward senior services and local government during that time.

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<sup>22</sup> Kurt Erickson, “Two Arkansas companies enter Missouri’s unregulated slot machine market,” *St. Louis Post-Dispatch*, June 8, 2022. [https://www.stltoday.com/news/local/govt-and-politics/two-arkansas-companies-enter-missouri-s-unregulated-slot-machine-market/article\\_27687d16-b886-5676-b5a3-2b32ce63db53.html](https://www.stltoday.com/news/local/govt-and-politics/two-arkansas-companies-enter-missouri-s-unregulated-slot-machine-market/article_27687d16-b886-5676-b5a3-2b32ce63db53.html)

<sup>23</sup> “Pennsylvania Report Claims Illegal Machines Cost State \$650M in Lost Lottery Sales,” *Vixio Gambling Compliance*, September 6, 2022 <https://vixio.com/insight/gamblingcompliance/pennsylvania-report-claims-illegal-machines-cost-state-650m-in-lost-lottery-sales/>



“Finally, the presence of skill machines also reduces lottery recruitment success, further dampening sales, and significantly lowering returns to the Commonwealth,” Swope said.

By contrast, Pace-O-Matic issued a press release last year that focused on the issue of cannibalization, which cited “anecdotal” data from retailers showing increased lottery sales in Pennsylvania following the installation of unregulated slot machines. The press release noted:<sup>24</sup>

Lottery sales have substantially increased since skill games began operations in Pennsylvania, and in fact, the lottery may benefit financially from skill games.

Pennsylvania Skill, made up of amusement and gaming small business owners across the state, set the record straight about lottery sales following misleading statements made by Pennsylvania lottery officials during a Senate hearing today.

“The Lottery’s own analysis shows that their sales continue to grow, which we applaud,” said Mike Barley, spokesman for Pennsylvania Skill. “There is no evidence skill games have had any negative effect on the Lottery, and we believe skill games boost lottery sales. To date, the lottery has failed to make any studies or statistics public to support their claims that skill games harm the lottery.”

Anecdotally, Barley said, some convenience store and grocery store owners that carry lottery tickets have seen increased lottery sales in stores once they add skill games.

Barley referred to an exhaustive study by Dr. Peter Zaleski, chair of Villanova University Economics Department and a partner at Meadows Metrics. By looking at four nearby states that do not have skill games -- Delaware, Massachusetts, New Jersey and New York -- Zaleski determined that from 2012 to 2019, Pennsylvania Lottery sales growth exceeded the lottery growth in those states.

In 2018 and 2019, years in which legal skill games expanded in Pennsylvania, lottery sales in the state grew at an average annual rate of 2.22% above the four other states Zaleski examined.

The Lottery has broken its own sales records in the last few years. At that time, Pennsylvania Skill games were in operation across the state.

Spectrum has not secured a copy of Zaleski’s report, which is not readily available for review on the Internet, even through press releases distributed by Zaleski’s client, and thus we cannot comment on his methodology or conclusions. There are no readily available insights into whether or not, or to what extent, Zaleski may have considered any existing or potential factors, such as the 2013 introduction of igaming in New Jersey, or the 2017 introduction of igaming in Pennsylvania or the 2018 introduction of ilottery in Pennsylvania, as examples. We do note, however, that the media accounts of Zaleski’s findings focus on statewide impacts, while lottery directors in Missouri and Virginia cite the clear decline at those particular retailers that have accepted unregulated slot machines on their premises.

Notably, Zaleski’s alleged findings were fully debunked in the aforementioned Pennsylvania study, conducted by Scientific Games on behalf of the Pennsylvania Lottery. That Scientific Games report deserves more attention and credibility than the report authored by Zaleski for the following reasons:

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<sup>24</sup>Pennsylvania Skill counters misleading statements made by Lottery officials,” Globe News Wire, June 14, 2021 [https://finance.yahoo.com/news/pennsylvania-skill-counters-misleading-statements-172100349.html?guccounter=1&guce\\_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce\\_referrer\\_sig=AQAAA KRllU3\\_GvFEIxtzIXm-lw\\_-zzz6uMf8mg5BhxKc-pn5AAvXMvWaM3ymaoz45ljyGR0SHj5NrpozDA-10rc-d1YcvoPUqaJO-sGyQj9XlgIPAjNfMGADdCeDQKnSihis8rIB4j3clcWc2R0yn\\_bgEIPG6VYhogYgu8oA5mUEQtch](https://finance.yahoo.com/news/pennsylvania-skill-counters-misleading-statements-172100349.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAA KRllU3_GvFEIxtzIXm-lw_-zzz6uMf8mg5BhxKc-pn5AAvXMvWaM3ymaoz45ljyGR0SHj5NrpozDA-10rc-d1YcvoPUqaJO-sGyQj9XlgIPAjNfMGADdCeDQKnSihis8rIB4j3clcWc2R0yn_bgEIPG6VYhogYgu8oA5mUEQtch)



- Scientific Games produced a report that is comprehensive, credible and transparent, revealing its sources, methodology and findings. Neither Zaleski nor his client have publicly released their report, thus their findings cannot be characterized in any sense as credible or transparent.
- The Scientific Games report relies on actual data on a retailer-by-retailer basis, which it had legal access to as a supplier to the Pennsylvania Lottery. The report also leveraged the Pennsylvania Lottery’s nearly 200 district sales representatives to canvass more than 9,000 retailers to report the number of unregulated slot machines they observed, along with the dates of their visit.<sup>25</sup>
- The Zaleski report, according to media accounts, relied on statewide data, compared to statewide data in neighboring states. Statewide data is simply not as credible, as there may be multiple reasons why data from some retailers grows, while others might decline. Statewide data cannot stand up against data that is accurate on a retailer-by-retailer basis.

The credible findings produced by Scientific Games can be characterized as 180-degrees apart from the Zaleski findings.

For example, the Scientific Games report notes that:<sup>26</sup>

- In the 52-week period ending July 2020, “the Pennsylvania Lottery has lost more than \$165 million in scratch sales to Games of Skill machine play.”
- “Cumulatively, the retailer-level impact model estimates that \$658.6 million in scratch sales have been lost due to the presence of Games of Skill machines at lottery retailers. This amounts to a 4.4% of the \$15.6 billion in scratch product that could have potentially been sold in Pennsylvania since September 2017.”

The details and projections within the Scientific Games report make clear the serious risk of cannibalization for the Virginia Lottery, as more than 25 percent of lottery retailers also house unregulated slot machines.<sup>27</sup>

Randy Wright, a consultant for Queen of Virginia Skill amusement devices and former Deputy Director of the Virginia Lottery from 2014 to 2018, also testified at the same hearing as Zaleski, and made the following points:<sup>28</sup>

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<sup>25</sup> “Pennsylvania ‘Skill Machines’ and Lottery Revenue,’ Impact Analysis Methodology And Results, 2022 Update, Scientific Games <https://www.pennbets.com/wp-content/uploads/2022/08/Pennsylvania-Skill-Machines-and-Lottery-Revenue-Impact-Analysis-Methodology-and-Results-2022-Update-3.pdf> (accessed September 7, 2022)

<sup>26</sup> “Pennsylvania ‘Skill Machines’ and Lottery Revenue,’ Impact Analysis Methodology And Results, 2022 Update, Scientific Games <https://www.pennbets.com/wp-content/uploads/2022/08/Pennsylvania-Skill-Machines-and-Lottery-Revenue-Impact-Analysis-Methodology-and-Results-2022-Update-3.pdf> (accessed September 7, 2022)

<sup>27</sup> Kevin Hall, Briefing for House Appropriations & Senate Finance Committees Sept. 16-17, 2019, [https://ihodvirginiageneralassembly.s3.amazonaws.com/agenda\\_block\\_docs/attaches/000/000/428/original/III\\_-\\_Lottery.pdf?1568640091](https://ihodvirginiageneralassembly.s3.amazonaws.com/agenda_block_docs/attaches/000/000/428/original/III_-_Lottery.pdf?1568640091)

<sup>28</sup> [https://www.legis.state.pa.us/WU01/LI/TR/Transcripts/2019\\_0075T.pdf](https://www.legis.state.pa.us/WU01/LI/TR/Transcripts/2019_0075T.pdf) (accessed September 6, 2022)

Since Queen of Virginia Amusement devices were introduced in Virginia, our joint statistical data shows that where the lottery and skill amusement devices share locations, lottery sales have increased from 17-27% in profits. My point here is that skill amusement devices complement the lottery, in much the same way Casinos offer various games. In conclusion, the implementation of Virginia Skill amusement devices has contributed to the record-breaking years the Virginia lottery has recorded.

We are not privy to the Virginia data that Wright referenced, thus we cannot attest as to its accuracy, or lack thereof. For example, we do not know if his data is based on “sales” or “profits,” both of which are referenced in the same sentence. If he does refer to “profit,” might it include commissions earned from unregulated slot machines? We do not know. We do, however, take exception to the unsupported conclusion that unregulated slot machines “contributed” to growth of the lottery in Virginia.

That notion defies logic and flies in the face of hard data provided by actual lottery sales as reported by lotteries in Pennsylvania, Virginia and Missouri.

The Virginia Lottery itself, along with its counterpart in Missouri, which has access to complete data by retailer location, have both noted results that are quite opposite of what Wright referenced. Noting reports that retailers who house both unregulated slot machines and lottery products have seen a decline in their lottery sales.

In September 2019, Virginia Lottery Executive Director Kevin Hall submitted a report and testimony to legislative committees in Virginia that included an example of cannibalization of lottery products from unregulated slot machines in the vicinity of Vinton, VA. The report examined impacts related to both the unregulated machines, as well as the historic horse racing (“HHR”) machines at Rosie’s in Vinton. The report noted the following with respect to HHR and Rosie’s:<sup>29</sup>

- HHR “appeals to different type of consumer seeking a different type of gaming experience.”
- In the first four months that Rosie’s had been operational in Vinton, there was “minimal impact on overall Lottery sales in the vicinity of Rosie’s locations” and that “all Rosie’s locations are licensed Lottery retail outlets
- From July 2018 to April 2019, the 15 Lottery retailers in the vicinity of the Vinton Rosie’s “performed very close to the overall state average in Lottery sales growth.”
- Rosie’s Vinton opened in May 2019, and “half of the retailers in the vicinity of Rosie’s, with no other changes in their businesses, continued to experience Lottery sales growth in line with the overall state growth rate in June, July and August.”
- Most notably for purposes of this study, half the retailers in the target areas near Rosie’s accepted unregulated slot machines into their facilities in May, and according to the Virginia Lottery report, lottery sales at those locations “declined in June, July and August.”

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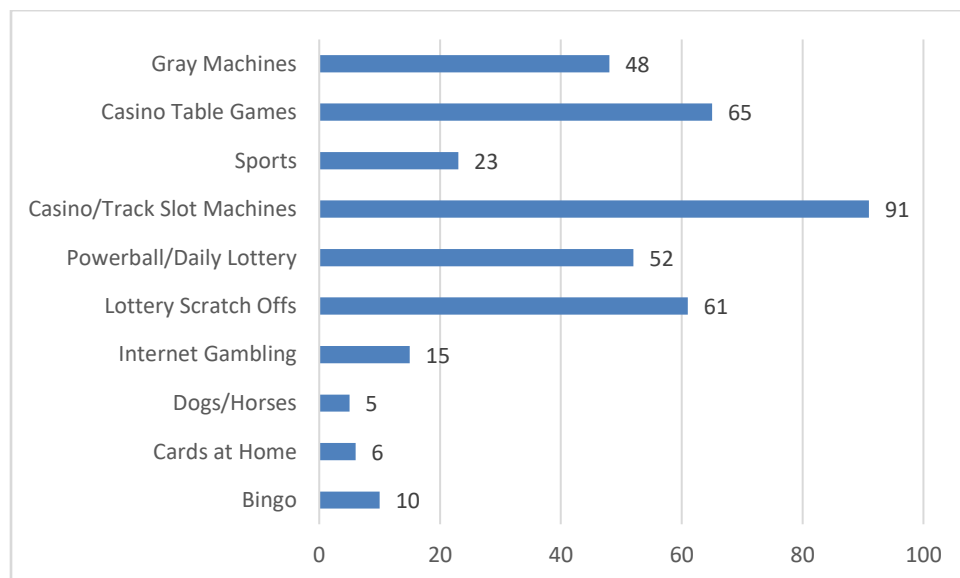
<sup>29</sup> Kevin Hall, Briefing for House Appropriations & Senate Finance Committees Sept. 16-17, 2019.  
[https://ihodvirginiageneralassembly.s3.amazonaws.com/agenda\\_block\\_docs/attaches/000/000/428/original/III\\_-\\_Lottery.pdf?1568640091](https://ihodvirginiageneralassembly.s3.amazonaws.com/agenda_block_docs/attaches/000/000/428/original/III_-_Lottery.pdf?1568640091)

It cannot be viewed as coincidental that lotteries in three states – Missouri, Pennsylvania and Virginia – all report declines in lottery sales at retailers that also house unregulated slot machines. That phenomenon is real, and represents a material threat to lotteries.

## D. Problem-Gambling Policy Concerns

The presence of “skill” clearly does not eliminate the attraction factor of these machines for adults who report concerns with problem gambling. For example, in 2019, the Virginia Council on Problem Gambling reported 48 calls that cited “gray machines” as the type of gambling related to their problem. The following chart puts that number in context:

**Figure 3: 2019 Hotline Calls, Type of Gambling as Cited**



Source: Virginia Council on Problem Gambling

The following year, the Virginia Council on Problem Gambling noted that, in 2020, “there were significant increases in intakes related to video lottery/gray machines, day trading, and internet gambling-non sports.”<sup>30</sup> The council also noted that “gray machines,” which encompasses the unregulated slot market in Virginia, were the single most often cited reason for calls that year.<sup>31</sup>

While the council’s annual report for 2021 did not note the number of calls related to “gray machines,” it did report that in 2021, “the Virginia Council on Problem Gambling received 5,602 calls. That’s a 387% growth in call volume from 2020 (1,150 calls).”<sup>32</sup>

<sup>30</sup> Virginia Council on Problem Gambling, 2020 Report, <https://vcpg.net/wp-content/uploads/2022/02/VACPG-2020-Annual-Report.pdf> (accessed September 5, 2022)

<sup>31</sup> Ibid.

<sup>32</sup> Virginia Council on Problem Gambling, 2021 Report

<https://vcpg.net/wp-content/uploads/2022/02/VCPG%202021%20Annual%20Report%20VCPG.NET.pdf> (accessed September 24, 2022)

The practices and policies of video offerings regarding problem gambling are not uniform among gaming offerings.

For example, every printed lottery ticket includes the phone number for the problem-gambling council; Colonial Downs lists the hotline number at its Rosie's HHR facilities and provides problem-gambling training for its employees, as well as literature to inform the gaming public as to available resources.<sup>33</sup>

Such policies and practices are clearly not present with respect to unregulated machines. The core point here is that the significant number of problem-gambling calls generated by these machines underscores their appeal as gambling devices that demand effective control.

## Electronic Gambling Devices, Slot Machines in Context

"Electronic gambling device" ("EGD") is a commonly used umbrella term for a gambling machine such as a slot machine, video gaming terminal, video lottery terminal, historical horse-racing machine, skill-based gambling machine, video poker machine, 8-liner machine, or myriad other gambling machines, whether regulated or unregulated. Each type of EGD – regardless of its name, look, player experience, or internal configuration – is a mechanized (or digitized) game of chance. Regardless of what the machines are called, all are, in essence, slot machines. Players insert money and play the game with the hope of winning more than they put in.

The established rules in Virginia are clear that these machines are gambling devices, and in the absence of authorized regulation, are illegal. A budget amendment passed into law earlier this year notes that "the making, placing, or receipt of any bet or wager of money or other consideration or thing of value shall include the purchase of a product, Internet access, or other thing made in exchange for a chance to win a prize, stake, or other consideration or thing of value by means of the operation of a gambling device as described in subdivision 3b, regardless of whether the chance to win such prize, stake, or other consideration or thing of value may be offered in the absence of a purchase. 'Illegal gambling' also means the playing or offering for play of any skill game."<sup>34</sup>

Irrespective of nomenclature, the descriptions of such machines as slot machines or gambling devices are similar across multiple jurisdictions. Note the following definition as supplied by the Indiana Gaming Commission:<sup>35</sup>

What is an electronic gambling device? An electronic gambling device meets one of these four requirements: (1) a slot machine or variation of a slot machine; (2) a matchup or lineup game; (3) a video game machine operated for consideration; or (4) a gadget or device used by a player for an opportunity to

<sup>33</sup> Graham, Moomaw, "As Virginia preps for casinos and sports betting, experts say state needs sharper focus on problem gambling," *Virginia Mercury*, February 24, 2020. <https://www.virginiamercury.com/2020/02/24/as-virginia-preps-for-casinos-and-sports-betting-experts-say-state-needs-sharper-focus-on-problem-gambling/>

<sup>34</sup> 2022 Special Session I, Budget Amendments – HB30

<sup>35</sup> [https://www.in.gov/igc/files/Gaming\\_Control\\_FAQs.pdf](https://www.in.gov/igc/files/Gaming_Control_FAQs.pdf) (accessed August 28, 2022)

obtain money or other items of value based on chance. Examples: electronic slot machines, Cherry Masters, or anything with a random number generator.

Note also that the definition of what constitutes a “slot machine” has also evolved over the years, due largely to adaptations and innovations in technology. The etymology of the words “slot machine” are now far afield from what would have been an earlier definition that would have included spinning reels as well as the presence of “slots.” A typical current legal definition can be found in statutes such as the following in Colorado:<sup>36</sup>

“Slot machine” means any mechanical, electrical, video, electronic, or other device, contrivance, or machine which, after insertion of a coin, token, or similar object, or upon payment of any required consideration whatsoever by a player, is available to be played or operated, and which, whether by reason of the skill of the player or application of the element of chance, or both, may deliver or entitle the player operating the machine to receive cash premiums, merchandise, tokens, redeemable game credits, or any other thing of value other than unredeemable free games, whether the payoff is made automatically from the machines or in any other manner.

Other states offer similar language that have the common trait of being very inclusive and broad in their definitions. Iowa relies on the following definition:<sup>37</sup>

“Slot machine” means a mechanical or electronic gambling game device into which a player may deposit currency or forms of cashless wagering and from which certain numbers of credits are awarded when a particular configuration of symbols or events is displayed on the machine.

A comprehensive definition of a “slot machine” has been put forth by the Bureau of Indian Affairs, an agency of the US Department of the Interior, which has regulatory oversight over the entire Indian casino industry in the United States:<sup>38</sup>

“Slot machine” or “gaming machine” means an electronic or electromechanical machine which contains a microprocessor with random number generator capability which allows a player to play games of chance, some of which may be affected by skill, which machine is activated by the insertion of a coin, token or cash, or by the use of a credit, and which awards game credits, cash, tokens or replays, or a written statement of the player’s accumulated credits, which written statements may be redeemable for cash. Such terms do not include electronic, computer or other technological aids or electronic or electromechanical facsimiles of games.

These sample definitions, as well as others not listed here, make clear that the definition of a “slot machine” is reflective of technological advances that have taken hold in recent decades, and is sufficiently broad to encompass any further technological or other changes. In effect, a “slot machine” has evolved in tandem with the retail casino industry’s evolution. Whereas once a slot machine would have presumably required spinning reels as well as “slots,” the current definition limits requirements to such areas as:

- Accepting money or its equivalent

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<sup>36</sup> Constitution of the State of Colorado, Colorado Revised Statutes 2017, Section 9 (4)(c)

<sup>37</sup> <https://www.legis.iowa.gov/docs/iac/chapter/01-20-2016.491.11.pdf> (accessed August 28, 2022)

<sup>38</sup> <https://www.bia.gov/sites/default/files/dup/assets/as/a/oig/pdf/508%20Compliant%20%202007.08.02%20Arapaho%20Tribe%20Gaming%20Procedures.pdf> (accessed August 28, 2022)

- Offering the potential for a return of money
- Randomness or chance

From the standpoint of the public at large, the issue was put into proper context in a recent editorial in a leading newspaper in Missouri, a state that is facing this same issue:<sup>39</sup>

The (operators of unregulated machines) claim, with various byzantine arguments, that they aren't actually games of chance and therefore don't fall under the state's gambling laws. Ultimately, players are putting money into the gaming machines in hopes of winning back more, via games whose outcomes they cannot control. That's a virtual dictionary definition of gambling.

For purposes of this analysis, most notable in the definition of a slot machine is that the presence of skill does not, in any way, make electronic gaming devices into something other than a slot machine. That explicit caveat has become necessary as well in recent years, as skill has been added in multiple instances in efforts to make legal, regulated slot machines more attractive to broader demographics.

Pace-O-Matic, which develops and licenses electronic gambling devices in Virginia, makes clear that it is targeting younger players accustomed to video consoles and arcade gaming, noting on its website:

Our products are designed for those who are looking to enjoy games that are more similar to what you would see in an arcade. Today's gamers have grown up on video gaming consoles and now play games on their phones. We are looking to deliver products that appeal to this new generation of gamers. They aren't entertained by pressing a button and waiting to see if they win or lose. They want to play a game and use skill. That is the difference and how Pace-O-Matic is setting itself apart from the competition.<sup>40</sup>

Pace-O-Matic is hardly alone in targeting an emerging demographic of adults who are accustomed to arcade games. Our experience shows that is a core goal of the licensed brick-and-mortar casino industry, and some licensed, regulated suppliers such as GameCo have made that market central to their business model by incorporating skill into the player experience. For example, the stated goal of casinos embracing new games to attract a new demographic was the subject of a 2016 article titled: "Atlantic City casinos hope to find their future in a video arcade."<sup>41</sup>

GameCo announced with much fanfare back in 2016 that it had struck a deal with Caesars Entertainment to provide its skill-based games at select Caesars casinos. A press release issued at the time noted:<sup>42</sup>

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<sup>39</sup> "Editorial: Unregulated Gambling Machines Appear to be Untouchable in Missouri," *Saint Louis Post-Dispatch*, June 6, 2022 [https://www.columbiainmissourian.com/opinion/guest\\_commentaries/editorial-unregulated-gambling-machines-seem-to-be-untouchable-in-missouri/article\\_cde1c89e-e4f2-11ec-bcbc-938617490269.html](https://www.columbiainmissourian.com/opinion/guest_commentaries/editorial-unregulated-gambling-machines-seem-to-be-untouchable-in-missouri/article_cde1c89e-e4f2-11ec-bcbc-938617490269.html)

<sup>40</sup> Michael Barley, "Pace-O-Matic CEO: Doing Things the Right Way," *Paceomatic.com*, December 29, 2020. <https://www.paceomatic.com/news/ceo-doing-things-the-right-way>

<sup>41</sup> John Brennan, "Atlantic City casinos hope to find their future in a video arcade," *northjersey.com*, September 28, 2016. <https://www.cdcgamingreports.com/atlantic-city-casinos-hope-to-find-their-future-in-a-video-arcade/>

<sup>42</sup> "GameCo Inc. Debuts World's First Skill-Based Video Game Gambling Machines at Caesars Entertainment Properties in Atlantic City," *Cision*, September 27, 2016. <https://www.prnewswire.com/news-releases/gameco-inc-debuts-worlds-first-skill-based-video-game-gambling-machines-at-caesars-entertainment-properties-in-atlantic->

GameCo's proprietary VGM is an arcade-style video game cabinet and controller. Each VGM features a single-player game, generally 60-90 seconds to play, adapted from top console, PC and mobile developers. The patented VGM gambling platform allows a player's skill in popular video games to determine the payout and winnings, while maintaining the same casino economics as slot machines. Game genres such as action, adventure, sports, racing, fighting, platformer and casual games will soon be prominent as casinos adapt to GenX and Millennial gamers who grew up playing video games.

In effect, the presence of "skill" does not preclude regulation, yet the concept of "skill" is clearly central to the argument that the electronic gambling devices that are distributed throughout Virginia are not prohibited, or do not need to be prohibited or regulated, because they rely on "skill," not "chance."

Consider the following 2018 account from the *Virginian-Pilot* newspaper:<sup>43</sup>

In the back of Mike's Break Room, Roger Houston puts money into a machine and the icons on the screen start spinning. Next, he selects a game that requires a "skill," such as hand-eye coordination or memory. If he wins, he gets back 104 percent of what he put in; the "play level" starts at 40 cents and goes to \$4.

"Why go to Dover when I got these right here?" Houston, 60, says, referring to a casino in Delaware.

But the game Houston is playing, "Queen of Virginia," is not gambling – at least according to Virginia law. The state says three factors together constitute gambling, which is illegal: An individual must place a bet or wager, there must be an opportunity to win a prize, and chance must be a predominant factor. If one of these elements is missing, it's not considered gambling.

The Department of Alcoholic Beverage Control decided "Queen of Virginia" is predominantly based on skill, not chance, and therefore is legal. For instance, one of the games, called "Follow Me," is a memory game. Rows of circles appear on the screen. They light up one by one, and then the player has to mimic that pattern.

"It really is a game of skill," Houston said. "If you're not watching, you're losing."

The recent history of regulated gaming makes clear that the addition of "skill" does not equate to the absence of "chance," nor does it conceivably negate the need for effective regulation. As the next section of the report demonstrates, the odds still favor the house. Notably, Virginia law makes clear that the presence of skill does not make such games legal.

## Playing Unregulated Slot Machines in Virginia

Spectrum's examination of electronic gambling devices in Virginia required viewing and playing samples of the machines in question.

I first played some unregulated slot machines on August 24, 2022, by visiting a gasoline station/convenience store at 11801 Baron Cameron Avenue in Reston, VA. The facility had six "Queen of

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[city-300334842.html](https://www.pilotonline.com/business/consumer/article_c0852932-749b-11e8-bdc6-c7c126d4ae95.html)

<sup>43</sup> Rebecca Carballo, "New games let bar patrons cash in, but aren't considered gambling machines," *Virginian-Pilot*, July 2, 2018. [https://www.pilotonline.com/business/consumer/article\\_c0852932-749b-11e8-bdc6-c7c126d4ae95.html](https://www.pilotonline.com/business/consumer/article_c0852932-749b-11e8-bdc6-c7c126d4ae95.html)



Virginia” games sandwiched into the first aisle, to the right of the entry door. Two of the machines were being played, and I played a machine in the center, inserting a total of \$30.

**Figure 4: Unregulated slot machines in Reston**



Photo taken by Michael Pollock, August 24, 2022

The experience in Reston could be characterized as somewhat communal, with players talking to each other about their experiences, and offering commentary about their expectations.

I next visited L&B Pizzeria & Sports Bar at 5401 Maplewood Plaza in Woodbridge, VA, which has eight machines. It has a picture of a slot machine on its Facebook page:

**Figure 5: Photo from L&B Pizzeria Facebook home page**



Source: <https://www.facebook.com/lbpizzeria>

The machines at L&B are near the entrance, opposite the long bar and in front of some pool tables. The facility has several cabinets. As we had played the Spartan model in Reston, we played the Barfly model, which can be set up on a table, inserting \$20 for roughly 15 minutes of play. The games played the same as their counterparts in Reston, with a heavy preponderance of the lower-denomination prizes.



**Figure 6: Barfly slot machine at L&B Pizzeria**



Photo taken by Michael Pollock, August 24, 2022

We also played the unregulated slots at 525 Hardy Road in Vinton, VA, which housed five Pace-O-Matic games along a window facing the gas pumps.

**Figure 7: Unregulated Slots in Vinton**



Photo taken by Michael Pollock, September 13, 2022

Notably, the location of the machines is a short walk from Rosie's in Vinton. The location included an automated redemption machine, although the machine was not in service during our visit, and displayed the following message on its screen:

**Figure 8: Redemption machine 'fatal error' message**

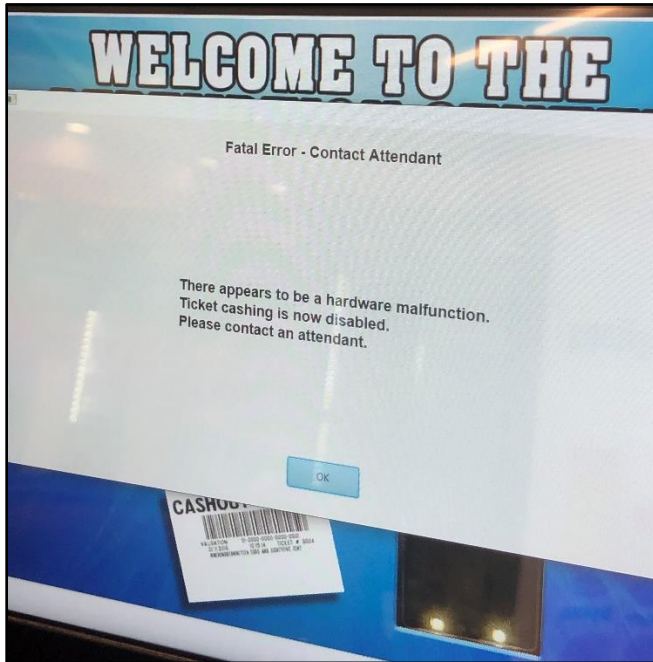


Photo taken by Michael Pollock, September 13, 2022

The clerk on duty had placed a call to a regional manager to fix the fatal error, and was in the interim paying patrons out of the store's general register. There was no indication that the store was segregating the slot-machine revenue or payouts from general sales at the store.

The Virginia games, like the offerings in Pennsylvania, offer the opportunity to play a variation of tic-tac-toe. Arguably, the traditional tic-tac-toe requires a rudimentary level of skill: Players are required to develop a pattern of three X's or O's before their opponents can do so, and players endeavor to block each other in the process. However, the unregulated offerings in both Pennsylvania and Virginia are far more rudimentary than their tic-tac-toe progenitor for reasons that include:

- There are no opponents
- Players do not have to develop a pattern of three matching symbols, as the game already provides two
- The player simply must click on the third symbol in the predetermined series to "win" that game

As is common with these machines in Virginia and elsewhere (Spectrum played similar unregulated games in Pennsylvania), the games are largely games of chance, requiring only rudimentary skills, such as identifying two of three similar symbols in rows that are either vertical, horizontal or diagonal, and the player has to touch the third, connecting symbol to form a complete row.

Notably, in Spectrum's experience, the machine did not seem to allow for errors. When seeking to advance to a new set of symbols, a beep on the machine indicated that the player had missed a connection.

More important, from the standpoint of inherent randomness, the ability to connect symbols was clearly dominant among the symbols that represented the smallest cash values, thus the ability to increase “winnings” was minimal. The symbols that offered the highest payout would occasionally appear, but not in potential winning scenarios, during the time Spectrum played the games.

The randomness of the appearance of symbols among the spinning reels makes clear the presence of a random-number generator. Any level of “skill” in the base game would be akin to what would be characterized as the “skill” of a game for toddlers, such as those that can be found in offerings from Fisher-Price.

## E. Identifying Elements of ‘Skill’

Secondary games appear to offer more challenges. In one game, for example, a screen appeared with a black-and-white version of what seemed to be a city under siege by aliens. Players could increase their points by touching the alien invaders.

An additional screen that offers a game called “Follow Me,” referenced in the previous section, is far more complex.

The games offered by Pace-O-Matic were described in a Virginia newspaper as:<sup>44</sup>

The company’s games generate what they call a “tic-tac-toe style puzzle” featuring spinning reels and a three-by-three grid with randomly generated symbols. Players can solve the puzzle by picking a “wild card” square to make a line of three matching symbols. Solving the puzzle doesn’t always result in a prize greater than the amount played. If the user doesn’t win back 104% of the money they played, they can proceed to a memory game that allows them to recoup their money by successfully repeating a 25-step sequence of lighted dots in perfect order.

The memory game referenced in that account (also referenced in the aforementioned 2018 article in the *Virginian-Pilot*) is “Follow Me.” A serious player who bills himself as “JeffTheHokie” described this offering:<sup>45</sup>

“Follow me” is a free zero-risk bet that is offered after a losing spin. It is a 20-round game of Simon. If you beat that, you get your money back for that spin plus 5%. If you can beat it consistently, you can zero out all of your losses and only keep the wins.

The advantage this gives you (zero loss with perfect play) is MUCH better than card counting, and has another advantage over card counting as well. “Follow Me” is the loophole that allows Pace-O-Matic to argue in court that their game is a “game of skill” rather than a slot machine. As such it is absolutely illegal for anyone who hosts the game to eject players for playing follow me.

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<sup>44</sup> Graham Moomaw, Michael Martz, “Virginia Lottery raises concerns over ‘aggressive’ growth of unregulated gaming machines, *Richmond Times-Dispatch*, August 20, 2019. [https://roanoke.com/virginia-lottery-raises-concern-over-aggressive-growth-of-unregulated-gaming-machines/article\\_21c5bf22-5c52-5dcf-9443-1c30384fb62d.html](https://roanoke.com/virginia-lottery-raises-concern-over-aggressive-growth-of-unregulated-gaming-machines/article_21c5bf22-5c52-5dcf-9443-1c30384fb62d.html)

<sup>45</sup> <https://virginiadigitalnews.com/2022/07/10/beating-queen-of-virginia-pa-skills-burning-barrel-part-1-pencil-and-paper-method/> (accessed September 4, 2022)

JeffTheHokie has put forth YouTube videos<sup>46</sup> that purport to show methods allowing players to beat “Follow Me,” which he states is “made slow and boring on purpose” to discourage players from playing Follow Me.

His methods range from writing down patterns in a grid that mimics the game, to assigning consonant sounds to each part of the grid to form words that serve as mnemonic devices that allow players to potentially replicate the pattern.

In his videos, he describes “Follow Me” as extraordinarily complex: “To do that by rote memory, you would have to be Rain Man,”<sup>47</sup> a reference to a 1988 film about a savant with exceptional memory skills.

JeffTheHokie claims to have won “big profits” and “job-quitting profits” from his system, which he has compared to card-counting in blackjack, a system that can allow skilled players to shift the odds advantage from the casino to the player. While we cannot verify his success at “Follow Me,” his characterization of “Follow Me” as a “loophole” designed to inject some level of skill into a predominantly random game deserves consideration. The presence of such a “loophole” does not turn a slot machine that is predominantly based on randomness into a game that is predominantly based on “skill.”

The games are clearly structured so that the odds favor the house, and both the “random” and “skill” elements are part of that structure. The nature of gaming allows for the possibility of players winning more than they wagered, but the long-term advantage remains with the house. The notion that players can routinely beat the house defies the gaming business model, and can best be characterized as disingenuous.

These games would not be considered slot machines simply because they look like slot machines. Indeed, one can purchase a 15-inch tall bank that is modeled after a slot machine for less than \$70 on Amazon, and while the rules vary from state to state, it is not illegal to own an actual slot machine.

Additionally, these games would not be considered slot machines if their prizes were plush toys or other non-cash prizes. To the contrary, these games offer cash to winning players. The randomness is central to their appeal, as most players would play for cash, particularly when the elusive top prize can reach \$20,000.

JeffTheHokie is the exception that makes the rule. To assume that players would endeavor to master a complex system in order to win back their bets plus five percent is absurd, and it is clearly antithetical to the business model embraced by the operators and suppliers of these machines.

A business model that purports to be based on “skill” cannot survive by pitting players against the house. In theory, JeffTheHokie and an army of his disciples could patiently play these games and, if their skill holds true, can continue to play, pocketing the 5 percent while ultimately playing long enough to hit the jackpot(s) in the base game. Building on that theory, such players could bankrupt the house.

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<sup>46</sup> <https://www.youtube.com/watch?v=y8tAuKc6x6k> (accessed September 4, 2022)

<sup>47</sup> Ibid.

As noted in a 2022 Pennsylvania Gaming Control Board hearing, an attorney for applicants that operated unregulated slot machines suggested that the business model of such machines indeed rests on the premise that a player can beat the house, arguing that “a patient skilled player can win every time. As much as we would like that to be the case with gambling machines, it simply is not. There is always that element of chance that predominates.”<sup>48</sup>

A business model that purports to allow players to routinely beat the house is dubious, and ultimately unworkable. Contrast that against sustainable models developed by other companies in which skill truly predominates, offering products that pit players against players. Under such a model, the most skilled players in any particular game can win, while the house takes a “rake,” a cut of the fee, and is fully agnostic as to whether or not a particular player wins or loses.

Consider Skillz, a skill-based game provider that bills itself as “the leading mobile games platform that connects players in fair, fun, and meaningful competition. The Skillz platform helps developers build multi-million-dollar franchises by enabling social competition in their games. Leveraging its patented technology, Skillz hosts billions of casual esports tournaments for millions of mobile players worldwide, and distributes millions in prizes each month.”<sup>49</sup>

Operators such as Skillz or Mobile Premier League, another skill-based games provider, have developed sustainable, legal business models that do not rely on randomness, but are genuinely focused on skill, and their revenues do not depend on whether any player wins or loses. The electronic gambling device providers in Virginia do not have such a business model, and cannot be considered skill-based games.

## Cannibalization of Casinos, Loss of Value

The next section of our analysis will highlight the potential impact on casinos, using the distributed gaming machines in Illinois as a case study.

The distributed gaming product in Illinois is licensed, and thus data is more reliable and readily available than in most other states.

### A. Illinois Example

The effects of distributed gaming on a state with commercial casinos can be best illustrated through the example of Illinois, a state that had commercial casinos, and later added distributed gaming in bars and restaurants. Although the Illinois example includes licensed, regulated VGTs, it nonetheless

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<sup>48</sup> Pennsylvania Gaming Control Board hearing, January 19, 2022, p. 36  
[https://gamingcontrolboard.pa.gov/files/meetings/Meeting\\_Transcript\\_20220119\\_Denial\\_of\\_VGT\\_Operators, Licenses %20Lendell Gaming, Better Bets Ventures, Venture Gaming,.pdf](https://gamingcontrolboard.pa.gov/files/meetings/Meeting_Transcript_20220119_Denial_of_VGT_Operators_Licenses_%20Lendell_Gaming,_Better_Bets_Ventures,_Venture_Gaming,.pdf) (accessed September 29, 2022)

<sup>49</sup> <https://www.skillz.com/about-us/> (accessed September 24, 2022)

offers the ability to isolate the potential effect of this combination, on a macro level, as well as on a local level, by examining the Peoria market, as will later be shown.

We examine the early pre-Covid-19 period following the addition of VGTs in order to best identify and isolate the impact of VGTs.

Illinois became the second state in the nation to approve riverboat-based casino gaming with the passage of the Riverboat Gambling Act in 1990. This act established the Illinois Gaming Board (“IGB”) and gave it authority to grant up to 10 casino licenses with up to 1,200 gaming positions<sup>50</sup> each.

The riverboat casino industry in Illinois was established as part of an effort to bring economic development to river towns in the state. Casinos opened in Alton, Joliet, East St. Louis, Rock Island, East Dubuque, the Peoria area, Metropolis, Aurora, and Elgin.

The riverboat in East Dubuque failed in 1997 because of its inability to compete with stationary casinos in Iowa and slot machines at the Dubuque, IA, dog track. That license was eventually moved to Des Plaines, where Rivers casino opened in 2011.

In July 2009, the governor of Illinois signed a bill allowing placement of up to five VGTs at bars, restaurants and truckstops. In the fall of 2012, three years after the law was passed, the first VGTs began operating. The IGB records the revenue from VGTs as net terminal income. That is equivalent to casino gross gaming revenue (“GGR”), a common industry term. For the purposes of this analysis, we will refer to both casino GGR and VGT net terminal income as GGR.

While riverboat casinos continued to be limited in capacity at fixed locations, VGTs could be placed at more convenient locations. In December 2012, after the first three months of VGT implementation, the state had 2,290 VGTs at 549 locations, roughly the equivalent of adding the capacity of two additional casinos to the state.<sup>51</sup>

By the end of 2019, there were 33,294 VGTs at 7,180 locations across the state,<sup>52</sup> the equivalent of adding the capacity of nearly 28 casinos to the market. This new, more accessible gambling option had severe implications for GGR at the state’s existing riverboat casinos.

The data portrayed below show the monthly revenue for Illinois casinos and VGT operations. As can clearly be seen, the annual casino GGR declined nearly \$200 million from 2013 through 2019. VGT revenue, on the other hand, grew from about \$300 million to \$1.699 million in the same period. The proliferation of distributed gaming grew overall revenue, at the expense of the casinos.

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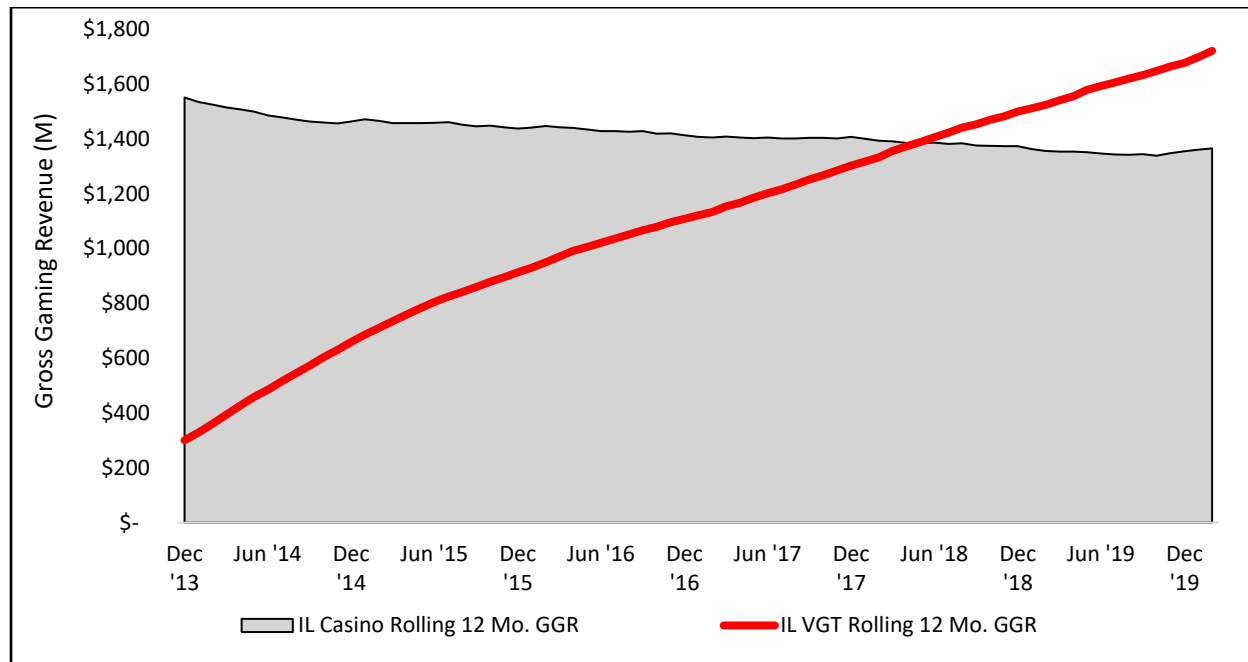
<sup>50</sup> One “gaming position” equals one slot machine or one seat at a table game.

<sup>51</sup> Based on the state’s limitation of 1,200 gaming positions at any one casino.

<sup>52</sup> Illinois State Gaming Board, Video Gaming Report, December 2012, December 2019.

<https://www.igb.illinois.gov/VideoReports.aspx>

**Figure 9: Illinois rolling 12-months casino GGR and VGT GGR, December 2013-February 2020**



Source: Illinois Gaming Board

The State of Illinois itself has recognized the negative impact of distributed gaming VGTs on casino GGR. The Illinois Commission on Government Forecasting and Accountability noted in September 2020:

Over 36,000 video gaming terminals were in operation at the end of FY 2020, which is the equivalent of adding over 30 full-size (1,200 position) casinos across the State. The emergence of video gaming has created more competition for the casino industry, thereby causing a falloff in the casino’s attendance and revenue figures.<sup>53</sup>

VGTs are spread across the entire state with the notable exception of the City of Chicago. The widespread distribution of machines makes it possible to analyze the impact of distributed gaming on the riverboat casinos. The prime example to review distributed GGR and casino GGR is the Peoria market.

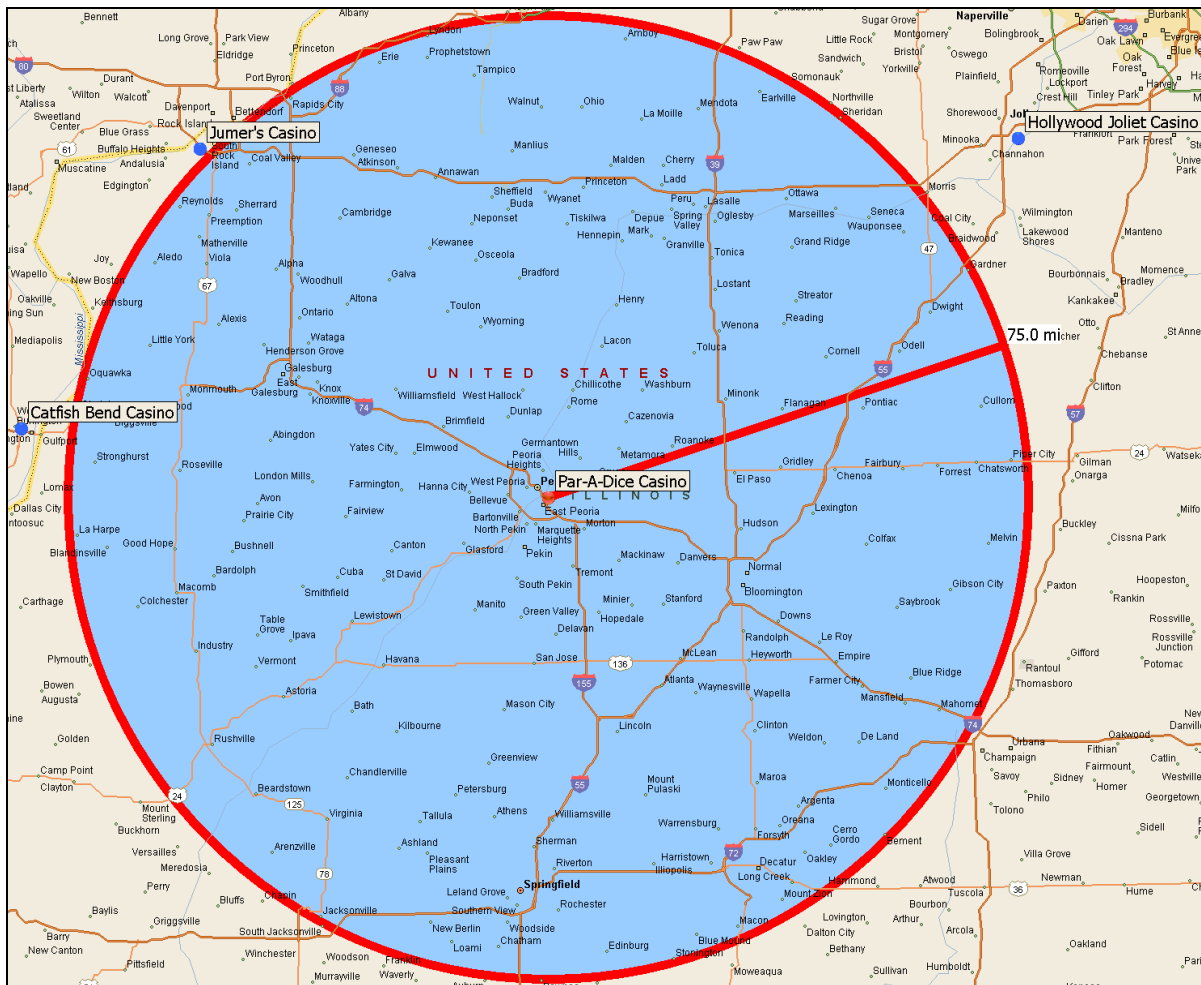
## B. Peoria as a Case Study of Cannibalization

Peoria is unique among the gaming markets in Illinois. The Par-A-Dice casino there had been in the market since 1992, operating in relative isolation during much of that time, with no new casino entrants in the area. Other Illinois gaming markets, such as the Chicago area, the St. Louis area, Metropolis, and the Quad Cities straddle state lines and have had more changes to their respective markets. However, the closest casino competition to Peoria are three casinos located in the Quad Cities of Illinois and Iowa – approximately 75 miles northwest of Peoria – and a casino in Burlington, IA. For these reasons, it is easier to isolate the changes in gaming revenue in Peoria following the introduction of VGTs than it would be in other gaming markets.

<sup>53</sup> “Monthly Briefing for the Month Ended: September 2020,” Commission on Government Forecasting and Accountability, September 2020, p. 2. <https://cgfa.ilga.gov/Upload/0920revenue.pdf>



Figure 10: Map showing 75-mile radius from Par-A-Dice casino, with locations of closest casinos



Source: Microsoft MapPoint, Illinois Gaming Board, Iowa Racing and Gaming Commission

Because people who play VGTs tend to be local to the VGT operator, we analyzed the performance of the Par-A-Dice casino and VGTs within a 25-mile radius of the casino during that initial pre-Covid-19 period. We correlated the VGT locations with the Illinois Gaming Board with the ZIP Codes associated with the host community, and then mapped the VGT GGR to the ZIP Code.

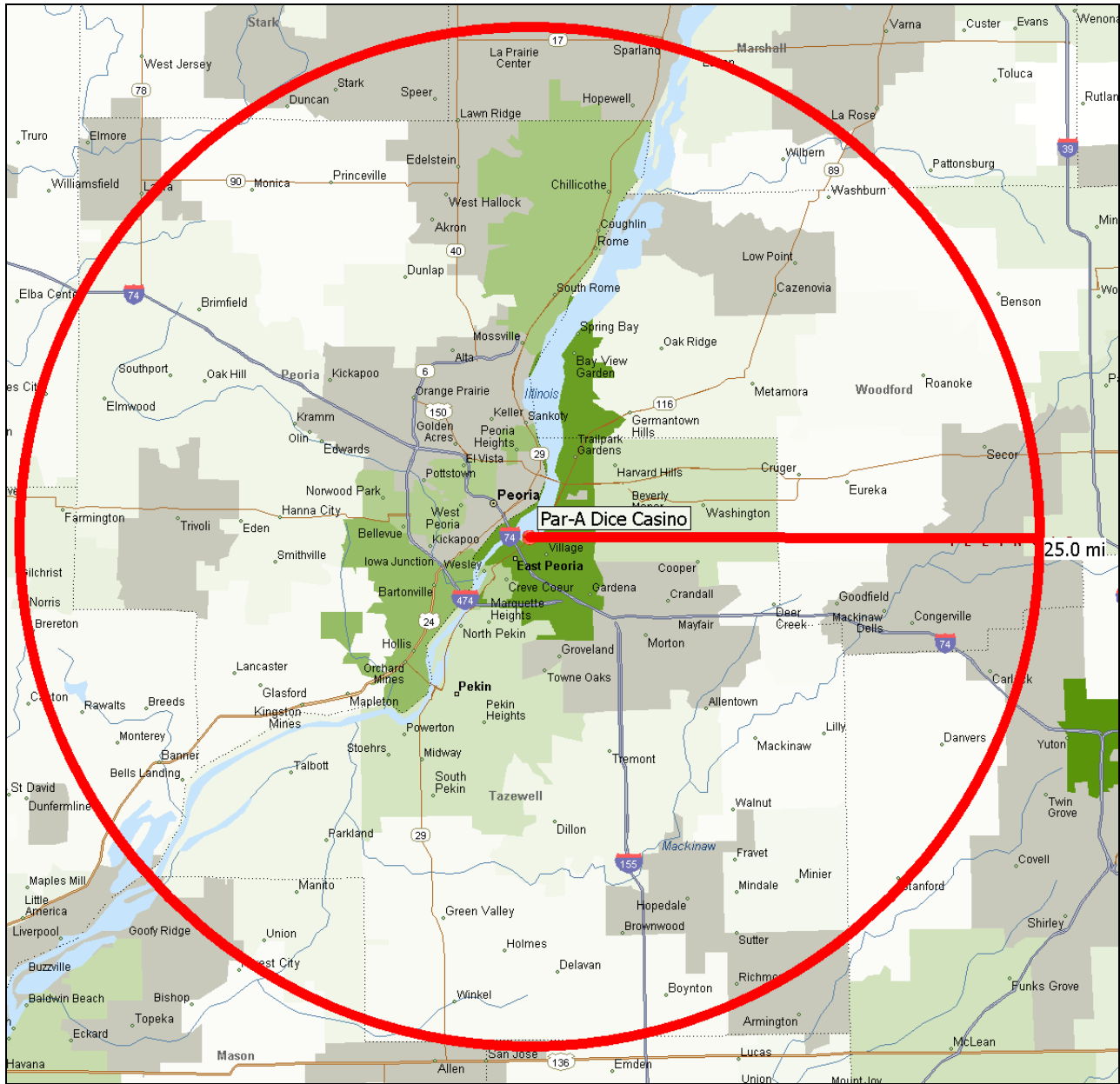
Par-A-Dice slot GGR declined 41 percent, from \$102 million in 2011, prior to VGT rollout, to just under \$60 million in 2019. VGT revenue in this market grew from \$13.45 million in 2013 to \$51.63 million in 2019. Total slot GGR in the market grew by \$9.62 million in the period. It appears that \$42 million of the \$51.63 million in VGT revenue was cannibalized from the Par-A-Dice casino.

Our analysis shows that the introduction of VGTs into the Peoria market was the primary driver of the significant decline in slot GGR at Par-A-Dice. Indeed, no other catalyst could be identified that would have led to a drop of 41 percent in an eight-year span, particularly because slot GGR for the market grew by \$9.62 million during precisely the same time span.

The figure below illustrates the 25-mile radius from Par-A-Dice Casino. The green shading represents the amount of VGT GGR in each ZIP Code. Deeper shades of green indicate higher VGT GGR.



Figure 11: Map showing 25-mile radius from Par-A-Dice casino and 2019 VGT GGR concentrations



Source: Microsoft MapPoint, Spectrum Gaming Group. (Deeper shades of green represent higher concentrations of VGT GGR.)

Our analysis began using 2011 as a base year, because there were no VGTs installed at that time. We analyzed the VGT GGR and the Par-A-Dice GGR 2011 to 2019 to show the trend over time during that isolated period.

**Figure 12: Peoria-area casino slot machine GGR and VGT GGR, 2011-2019**

Calendar Year	VGT Locations	Installed VGTs	VGT GGR (M)	Par-A-Dice Slot GGR (M)	Total Market GGR (M)
2011	-	-	\$-	\$102.0	\$102.0
2012	30	135	\$0.4	\$102.2	\$102.6
2013	185	780	\$13.5	\$92.1	\$105.6
2014	248	981	\$24.4	\$80.3	\$104.8
2015	260	1,050	\$32.6	\$76.2	\$108.8
2016	294	1,336	\$39.1	\$68.4	\$107.5
2017	317	1,313	\$45.1	\$64.1	\$109.2
2018	326	1,397	\$49.9	\$62.6	\$112.5
2019	297	1,336	\$51.6	\$60.0	\$111.6

Source: Illinois Gaming Board, Spectrum Gaming Group

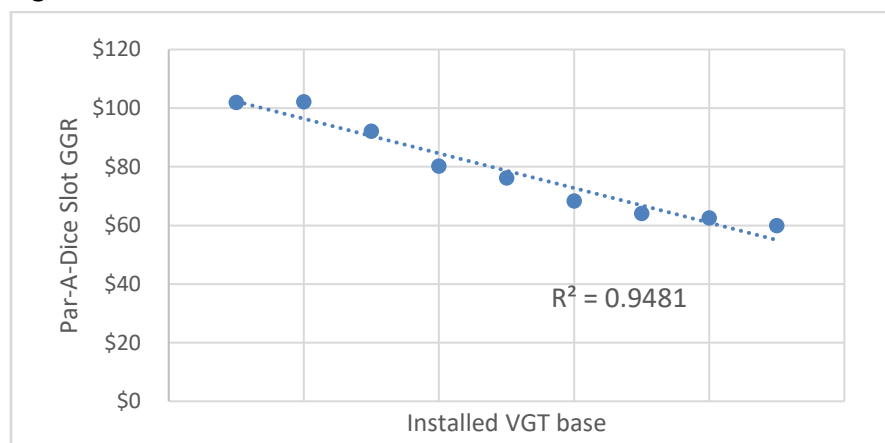
Par-A-Dice slot GGR declined 41 percent, from \$102 million in 2011, prior to VGT rollout, to just under \$60 million in 2019. VGT revenue in this market grew from \$13.45 million in 2013 to \$51.63 million in 2019. Total slot GGR in the market grew by \$9.62 million in the period. It appears that \$42 million of the \$51.63 million in VGT revenue was cannibalized from the Par-A-Dice casino.

We further reviewed the data, using a regression analysis to determine the impact of an independent variable – the number of installed VGTs – on a dependent variable, the slot GGR for the Par-A-Dice casino.

Relying on a regression analysis requires examining the r-squared ( $R^2$ ), which is defined as “a statistical measure in a regression model that determines the proportion of variance in the dependent variable that can be explained by the independent variable. In other words, r-squared shows how well the data fit the regression model (the goodness of fit).”<sup>54</sup> A perfect r-squared would be 1.0, while values of .90 or higher generally indicate an effective relationship.

Our regression analysis, shown in the following chart, reveals an r-squared of .9481.

**Figure 13: Par-A-Dice slot revenue and installed VGTs**



<sup>54</sup> Corporate Finance Institute <https://corporatefinanceinstitute.com/resources/knowledge/other/r-squared/> (accessed September 28, 2022)

Any such analysis must be accompanied by cautionary notes that correlation does not always equate to causation, as other factors could potentially be at play, not all of which are readily measurable. Even with that caveat in mind, our analysis shows that the introduction of VGTs into the Peoria market was the primary driver of the significant decline in slot GGR at Par-A-Dice. Indeed, no other catalyst could be identified that would have led to a drop of 41 percent in an eight-year span, particularly because overall slot GGR for the market grew by \$9.62 million during the same time span.

The finding is clear and indisputable: Distributed gaming in that market materially cannibalized casino revenue, and we fundamentally expect that this same phenomenon would occur in Virginia.

## C. Casino License Valuation

To evaluate a second impact from the introduction of VGTs in the Illinois market, it is instructive to examine the Quad Cities market, which straddles Illinois and Iowa. The Quad Cities are Bettendorf and Davenport in Iowa and Moline and Rock Island in Illinois.

The Quad Cities market, like the Peoria gaming market, is constrained by casinos to the north, south and west, creating a restricted market that is relatively ideal for studying the impact of differing state regulations and tax policies.

For many years, this market was stable and supported three casinos: The Isle of Capri and Rhythm City in Iowa and Casino Rock Island in Illinois. As seen in Figure 14 below, Casino Rock Island was third in the market in 2007 and 2008, in part due to a smoking ban at Illinois casinos, while Iowa casinos allowed smoking. In 2009, Casino Rock Island, now known as Jumer's Casino & Hotel, opened a new casino and hotel complex, leading to a surge in revenue at the property. The *Quad-Cities Times* noted at the time:

Illinois casinos, hit with a double whammy of a national recession and a smoking ban, saw revenues dip more than 20 percent in the past year.

Jumer's Casino & Hotel in Rock Island, thanks to its new land-based facility that opened near Interstate 280 and Illinois 92, was the lone bright spot in a grim 2008-09 for Illinois' gaming industry.

Jumer's saw its admissions increase from 40,000 to more than 100,000 in every month of 2009, with adjusted gross revenues swelling to a robust \$5.84 million this April, compared to \$2.62 million in April 2008, according to data from the Illinois Gaming Board.<sup>55</sup>

Subsequently, several significant events took place in the Quad Cities market, including:

- On April 13, 2011, the Illinois Board approved the purchase of Jumer's by DNC Gaming & Entertainment, a unit of Delaware North Companies Inc., a global food service and hospitality company.<sup>56</sup>

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<sup>55</sup> Tory Brecht, "Jumer's Casino shines in troubled industry," *Quad-City Times*, May 19, 2009. [https://qctimes.com/news/local/jumer-s-casino-shines-in-troubled-industry/article\\_ddb4ef84-44de-11de-b3ec-001cc4c03286.html](https://qctimes.com/news/local/jumer-s-casino-shines-in-troubled-industry/article_ddb4ef84-44de-11de-b3ec-001cc4c03286.html)

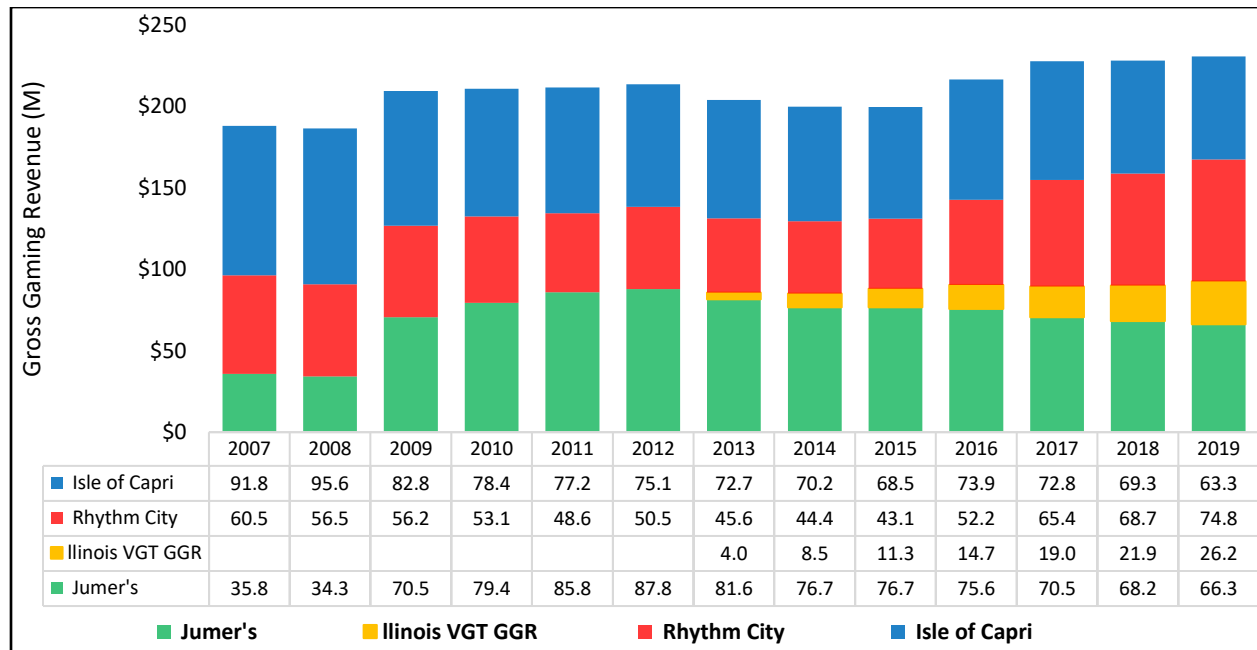
<sup>56</sup> Illinois Gaming Board 2011 Annual Report. <https://www.igb.illinois.gov/AnnualReport.aspx>

- In 2013, the Iowa Racing and Gaming Commission approved the asset purchase of Rhythm City Casino by Scott County Casino LLC.<sup>57</sup> The sale closed in 2014.
- In 2017, Isle of Capri and Rhythm City had their first full year of operations after moving into new, land-based facilities.

The biggest change in the market, however, was the introduction of VGTs to the market beginning in 2013, as that increased the supply of gaming positions and competition within the market.

As we did above with the Peoria market for VGTs, we evaluated the pre-Covid-19 GGR for the VGTs within a 25-mile radius of Jumer's. GGR for the VGTs grew from \$4.0 million in 2013 to \$26.2 million in 2019. GGR at Casino Rock Island in the same period declined from \$87.8 million to \$66.3 million.

**Figure 14: Quad Cities gaming GGR, 2007-2019**



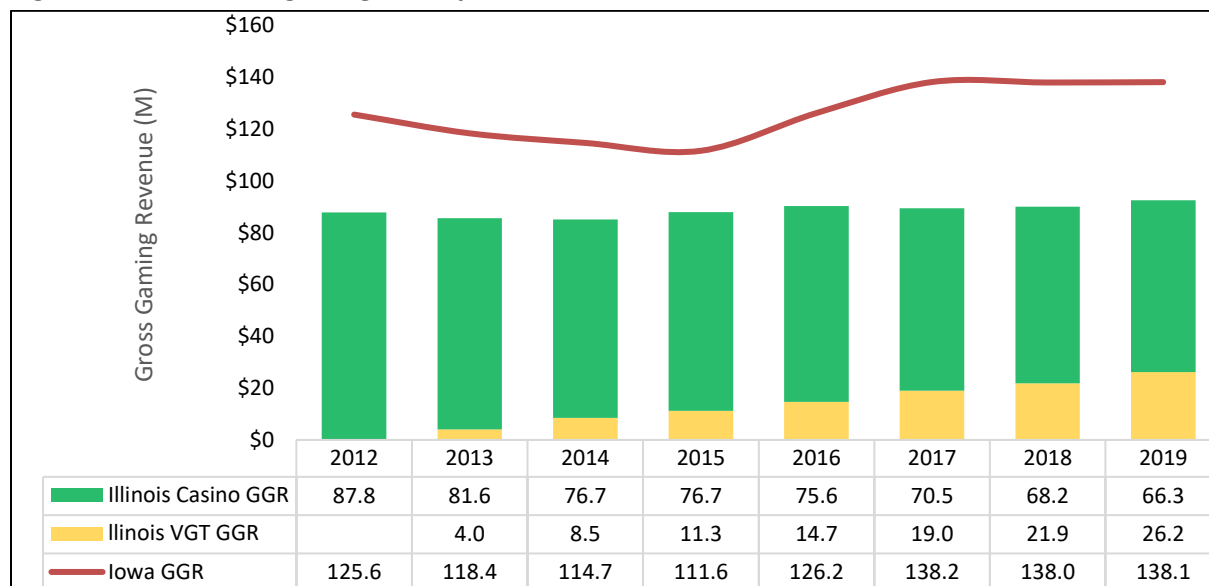
Source: H2 Gaming Capital, Illinois Gaming Board, Spectrum Gaming Group

It is instructive to evaluate the GGR by state. Improvements to the Iowa casinos, including the two new, land-based casinos that opened in June 2016, fueled growth in Iowa. Figure 15 below shows that the GGR in Iowa held steady at about \$140 million after the new properties opened. There are no VGTs in Iowa. At Jumer's, GGR declined by more than \$10 million in that period, or 14.8 percent.

Illinois gaming held its own during this period of growth in Iowa, as shown in the below chart. The key difference: Illinois revenue shifted markedly away from Jumer's and toward VGTs.

<sup>57</sup> Iowa Racing and Gaming Commission 2013 Annual Report.  
[https://irgc.iowa.gov/sites/default/files/documents/2015/09/annual20report202013\\_0.pdf](https://irgc.iowa.gov/sites/default/files/documents/2015/09/annual20report202013_0.pdf)

**Figure 15: Quad Cities gaming GGR by state, 2012-2019**



Source: H2 Gaming Capital, Illinois Gaming Board, Spectrum Gaming Group

Casinos are high-fixed-cost businesses. Whether 50 or 500 players are on the casino floor, the entire facility needs to be vacuumed, air conditioned, and monitored by surveillance personnel, among other fixed costs incurred by the operator. Money from slot machines needs to be collected regardless as to whether there is \$20 or \$2,000 in the machine. Operating margins increase as revenue grows, as the fixed costs are covered more quickly. This is among the reasons many states, including Illinois, have a graduated gaming tax rate, allowing the operator to pay the bills with the early money.

The reality that gaming properties have high fixed costs and margins that grow substantially once those fixed costs are covered means that if Jumer’s did not have to share the Illinois revenue with distributed VGTs, it would have enjoyed higher profit margins and a higher valuation.

As noted earlier, Jumer’s was purchased in 2011 for \$180 million. In October 2020, Delaware North reached an agreement to sell Jumer’s to Bally’s Corporation for \$120 million.<sup>58</sup> The deal closed in the second quarter of 2021.<sup>59</sup> This rather steep decline – equating to a loss of one-third of the property’s value in less than a decade – can be attributed to two factors that appeared to feed on each other:

- A decline in earnings, and
- A decline in investor confidence in that property’s future earnings prospects

<sup>58</sup> Matt Glynn, “Delaware North to sell Illinois casino for \$120 million,” *The Buffalo News*, October 3, 2020. [https://buffalonews.com/news/local/delaware-north-to-sell-illinois-casino-for-120-million/article\\_840b7a14-05b8-11eb-a89e-7b03d818d1f5.html](https://buffalonews.com/news/local/delaware-north-to-sell-illinois-casino-for-120-million/article_840b7a14-05b8-11eb-a89e-7b03d818d1f5.html)

<sup>59</sup> “Bally’s Corporation Completes Acquisition of Jumer’s Casino & Hotel,” PRNewswire, June 14, 2021. <https://www.prnewswire.com/news-releases/ballys-corporation-completes-acquisition-of-jumers-casino--hotel-301311842.html>

Gaming properties are generally valued as a multiple of earnings before interest, taxes, depreciation and amortization (“EBITDA”). In 2020, Bally’s, a public company, disclosed that the \$120 million valuation was approximately 7.4 times the 2019 EBITDA, meaning the EBITDA in 2019 was about \$16.2 million.<sup>60</sup> Looking back at the 2011 transaction in which Delaware North purchased Jumer’s, the transaction was private, so neither party disclosed the EBITDA multiple of the sale. The 2015 Bank of America Merrill Lynch Gaming Primer includes a table of gaming transactions from 1998 to 2015.<sup>61</sup> This report includes a note that the 2011 sale to Delaware North was at a 7.8 times multiple of 2010 EBITDA; the \$180 valuation means an EBITDA of approximately \$23.1 million in 2010.

A higher multiple of EBITDA reflects investor confidence in the prospects for the business. In the case of Jumer’s, the EBITDA multiple declined from 7.8 to 7.4. Had the multiple not fallen, despite the decline in EBITDA, the value of the property would have been \$126.7 million, or \$6.7 million higher than the 2020 sale price. It is difficult to separate decreased EBITDA and a reduced multiple, as the two are interrelated.

The revenue decline coincided with the implementation of the VGTs in Illinois, a decline in EBITDA from \$23.1 million to \$16.2 million, and a decline in the value of Jumer’s by approximately \$60 million, or 33 percent.

By any reasonable measure, the precipitous decline in the value of Jumer’s is inextricably linked to the implementation of distributed gaming in Illinois. That new level of in-state competition cannibalized revenue and dampened future prospects for growth. Those two decisive factors, in turn, translate respectively into lower earnings and a reduced multiple, the two inputs that determined the 2020 value of that property.

Gaming properties in Virginia, as in any jurisdiction, can expect to be valued based on the same concept of a multiple of EBITDA. Most significant, gaming properties in Virginia are subject to the same two forces that would be at play in reducing the value of a property:

- If the markets believe that future earnings will not grow at a level previously expected, the assigned multiple will be lower.
- If earnings are reduced because of this in-state competition, the reduced multiple would be applied to a lower EBITDA amount.

Thus, unregulated slot machines in Virginia threaten the revenue, the earnings and the value of the emerging casino industry’s future investment in their properties and operations. As widespread, unregulated gaming would result in less revenue and lower EBITDA for operators, the risk for Virginia is that those lower expectations would lead to less capital investment, as operators can be expected to require returns on their investment that exceed their internal thresholds.

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<sup>60</sup> Doug Schorpp, Delaware North Completes Jumer’s Acquisition,” *Quad-City Times*, April 8, 2011. [https://qctimes.com/news/local/delaware-north-completes-jumer-s-acquisition/article\\_9c5691e4-711b-11e0-8e4f-001cc4c03286.html](https://qctimes.com/news/local/delaware-north-completes-jumer-s-acquisition/article_9c5691e4-711b-11e0-8e4f-001cc4c03286.html)

<sup>61</sup> Bank of America Merrill Lynch, “BofAML Gaming Primer 2015: How to play the game,” Table 67, p. 171, Equity Analysts, September 4, 2015.

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Less capital investment, in turn, would translate into a potential for fewer amenities, as well as properties that are less attractive and are thus less able to reach a broader geographic and demographic audience. That, in turn, by definition, would lead to fewer jobs. Casino properties that are expected to become economic engines for their communities would be less able to drive those local economies.

## Certification of Opinion

It is my opinion to a reasonable degree of professional certainty that this report is accurate and reflective of my findings and opinions, as well as those of Spectrum Gaming Group.

Respectfully submitted,



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Michael Pollock  
Managing Director  
Spectrum Gaming Group

September 29, 2022



## Appendix A: Biography of Michael J. Pollock

Michael Pollock oversees a broad portfolio of Spectrum services, including policy and impact studies for country, state and local governments, and financial and market studies for private-sector clients. He is also a principal in Spectrum eSports Advisors and the Spectrum Gaming Sports Group.

He has served as an expert witness in multiple legal matters, including on behalf of Pennsylvania casino operators in litigation regarding unregulated slot machines in that state.

Pollock began analyzing the casino industry in 1978 and served as spokesman for the New Jersey Casino Control Commission from 1991 through 1996. He was a close advisor to the chairman, and he oversaw the Office of Legislative Liaison. During this period of rapid deregulation, his charge was to maintain public confidence in the integrity of the regulatory system.

Pollock is the author of the award-winning book *Hostage to Fortune: Atlantic City and Casino Gambling*, published in 1987 by the Center for Analysis of Public Issues in Princeton, NJ. The book examines the impact of casinos on Atlantic City and New Jersey. He has testified before the International Tribunal at The Hague; the World Bank in Washington, DC; the US Senate Indian Affairs Committee and the US Senate Select Committee on Indian Gaming, and he has been a featured speaker at the Congressional Gaming Caucus, a group of US House of Representatives members from gaming jurisdictions. He also has testified before numerous legislative committees throughout the United States.

He has led Spectrum economic analyses in markets throughout North America, as well as in Latin America, Guam and Korea.

Pollock is the former editorial page editor of *The Press of Atlantic City* and has won 20 journalism awards. Pollock is often cited by local, regional and national media outlets, including *The Philadelphia Inquirer*, *Harrisburg Patriot-News*, *Pittsburgh Tribune-Review*, *Allentown Morning Call*, *Pocono Record*, *Scranton Times-Tribune*, *The New York Times*, *Star-Ledger*, *Wall Street Journal*, BBC, MSNBC, ABC News, CNN and National Public Radio. He has been a speaker at the National Press Club and other forums.

Pollock earned his MBA, with high honors, from Rutgers University, and he has served as a member of the adjunct faculty of New York University, Rutgers University and Stockton University.

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## Appendix