



Examination of Historical Horse Racing Machines

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1. EXECUTIVE SUMMARY

The state of Oregon has long offered a variety of wagering including a state lottery, video lottery terminals (VLTs), poker rooms, full-service casino gaming at ten casinos operated by Oregon Indian Tribes, and pari-mutuel wagering at horse tracks and off-track betting facilities (OTBs). One horse track is now moving forward with adding an additional form of electronic wagering by offering historic horse racing machines (HHRs). If successful, off-tracking betting operators may also petition public policy makers to install HHRs at their facilities as they employ game math predicated on the results of past horse races rather than bingo math found on Class II electronic gaming devices or random number generators (RNG) found in Class III electronic gaming devices.

Casino Consultants Consortium (C3 Gaming or Consulting Team) was engaged to conduct a study that examines the evolution of HHRs, the kinds of gaming devices that are available today, and the impact these newest generation of machines have had on markets adjacent to where HHRs have been introduced. The goal of this study is to educate stakeholders as to the impact these newest generation of electronic gaming devices will have on Oregon's gaming industry and gaming tax structure.

HHRs were originally introduced into the state at Portland Meadows Racetrack. The facility, located near Interstate 5 on the north side of Portland, closed in 2019 and was subsequently demolished. Its license was transferred to a new facility and it now contains an OTB and a 20-table poker room. Prior to the track's closure, Portland Meadows featured pari-mutuel wagering, VLTs, and HHRs. The HHRs at Portland Meadows were comprised of an earlier generation of electronic gaming machines and did not offer the same gaming experience as Oregon VLTs. These HHRs had a limited library of game titles and operated on fairly pedestrian cabinets. The lackluster facility in which the gaming devices were housed further contributed to the HHRs' weak performance. As such, HHRs were not deemed competitive to VLTs, and Class III gaming devices offered at tribal casinos.

The state of Oregon is about to experience a significant expansion in the kinds of electronic gambling devices available to the general public in the form of new generation HHRs. Perhaps unbeknownst to state policy makers, Oregon Lottery officials, tribal gaming enterprises, and the media, HHRs have undergone significant improvements in design, technology, and marketing appeal. Working closely with Churchill Downs, Ainsworth Game Technology Inc., a gaming machine manufacturer, developed a new central determinant system that employs the game math found in HHRs and adapted this new system to work on the company's newest game cabinets and game titles. These new HHRs were first deployed at Derby City Gaming in Louisville, KY in September of 2018, and proved very successful in cannibalizing gaming revenue from the Horseshoe Casino Southern Indiana (now Caesars Southern Indiana).



Over the past eighteen months, Ainsworth entered into licensing agreements with other gaming machine manufacturers including International Game Technologies (IGT), Scientific Games, Konami Gaming Inc., and Aristocrat Technologies, whereby these companies were able to modify their newest game cabinets and most popular game titles to work on Ainsworth's HHR system.

Exacta, another provider of HHR systems and electronic gaming devices predicated on HHR math has also entered into licensing agreements with major slot machine manufacturers including IGT, Scientific Games, Konami, AGS, Incredible Technologies, and Gaming Arts so that their machines can connect to Exacta's HHR system.

In addition to Kentucky, the newest generation of HHR machines can now be found in casinos in Wyoming and Virginia and will soon be installed at sixteen pari-mutuel facilities in New Hampshire. Where they have been deployed, these new HHR machines' revenue performance has been excellent, and they compete successfully with RNG-based gaming devices found in adjacent jurisdictions.

Given the number of racetracks and OTB facilities in Oregon, the introduction of these new HHR machines will alter the competitive landscape, and they are expected to cannibalize gaming revenue from the Oregon Lottery's VLTs and Oregon tribal casinos. Public policy makers, Oregon Lottery officials, and tribal casino operators may not be aware of the impact that these electronic gaming devices may have on their own machines' performance.

IMPACT OF HHRs IN OTHER MARKETS

C3 Gaming conducted extensive research and analysis to uncover how existing Class III casinos and racinos have been impacted where HHR gaming facilities opened in recent years. The analysis also revealed how the performance of new generation HHR games are tracking and generating similar Win Per Unit Per Day (WPUPD). Specifically, Caesars Southern Indiana's net slot revenue declined by 12% year-over-year following the installation of 900 HHR gaming machines at Derby City Gaming in Louisville, KY. In the Lexington, KY market, Red Mile Gaming & Racing installed 902 HHRs in September of 2015. In the ten month period that followed, the Belterra Casino Resort, located 90 minutes away from Red Mile posted ten months of consecutive net slot revenue declines amounting to an overall 7% slide.

As the new generation of HHRs are deployed and operated throughout markets in Kentucky and Virginia, more data has become available to understand how they perform and are perceived in the market. It has become evident that HHRs are garnering impressive performance based on the win per unit per day levels they are generating, which is a widely-used industry standard benchmark to make comparisons. In the months since reopening in 2020, Oak Grove's HHRs are producing WPUPD levels similar to



Tropicana Evansville (a full scale casino resort) and outperformed Harrah's Metropolis. Both casinos are a 90-minute drive from Oak Grove. In 2019, Derby City generated an identical WPUPD to that of Caesars Southern Indiana, a full scale casino resort with a national player database. Finally, in Virginia, the state has rolled out over 2,000 Exacta HHR electronic gaming devices since mid-2019. There are two locations with 125 and 150 machines each that are generating WPUPD's in excess of \$500, while two other locations with 700 machines each are producing an average WPUPD of \$300.

CONSULTING TEAM'S CONCLUSIONS

HHRs have demonstrated themselves to be worthy competitors to casinos in a number of jurisdictions. The terms, "historic racing machine" or "historic horse racing machines" are misnomers. These are not so much machines that mimic or display past horse races but are electronic gaming devices that rely on pari-mutuel game math to replicate the gaming experiences found on traditional slot machines. Like VLTs, slot machines and Class II bingo machines, they are games of chance – not games of skill.

Recent advances in technology and game math, primarily Ainsworth and Exacta's mathematical models and game kits now allow major slot machine manufacturers to offer their most popular game titles on HHR platforms.

The anticipated introduction of HHRs at The Flying Lark in Grants Pass and possibly other racetracks in Oregon, along with the possibility of their installation at OTBs represents a significant expansion of electronic gaming in the state. What policy makers must ask is, do they want an expansion of gaming in the state and, if so, how will this increase in supply impact existing VLT operations and tribal casinos.

If policy makers are in favor of an increase in machine gaming, then they must address tax policy. Oregon Senate Bill 165 will change the tax structure on HHRs from one based on a percentage of revenue to a fixed fee model that increases modestly in subsequent years. SB 165 proposes revising how revenues derived from historic racing machines are distributed to organizations representing and promoting Oregon's horse racing industry. It specifically addresses The Flying Lark at Grants Pass Downs.

The overall amount wagered on a horse race is called "handle." After paying out winning bettors, the amount left over is the "take out" rate, which is used to pay winning horse owners and jockeys (the "purse") and to pay the costs of operating a racetrack. Under current law, the take out rate is 20% for live racing and OTBs, and 8% on HHR machines. SB 165 proposes changing only the HHR fees to a fixed fee model, with modest annual increases.

To estimate the true tax impact, C3 Gaming prepared a forecast of HHR gaming revenue at The Flying Lark. Utilizing gravity model methodology, a proven and accepted method of accurately forecasting gaming revenue for a new or existing gaming facility and



measuring the effects of cannibalization from other gaming facilities, C3 Gaming forecasts that The Flying Lark with 250 HHR machines can expect to generate \$25.5 million in HHR revenue in its first year of operation.

Effective Gaming Tax Rates on HHRs Comparison							
Tax Regime	Tax Payments	HHR Revenue	Effective Rate on Revenue	Time Period	HHR Handle	Effective Rate on Handle	
Oregon Current at 8%	\$ 2,036,640	\$ 25,458,000	8.0%	Flying Lark Est. 2022	\$ 318,225,000	0.64%	
Oregon Proposed Fixed	\$ 470,000	\$ 25,458,000	1.8%	Flying Lark Est. 2022	\$ 318,225,000	0.15%	
Kentucky Total	\$ 69,114,645	\$ 399,232,209	17.3%	Statewide FY 2021	\$ 4,607,642,991	1.50%	
Virginia Total	\$ 30,265,258	\$ 206,877,939	14.6%	Statewide FY 2021	\$ 2,421,220,655	1.25%	
Wyoming Total	\$ 15,076,066	\$ 59,076,313	25.5%	Statewide CY 2019	\$ 793,477,137	1.90%	

Source: C3 Gaming, Kentucky Horse Racing Commission, Virginia Racing Commission, Wyoming Gaming Commission, Oregon Racing Commission, OTOBA, Grants Pass Downs, Crosswater Strategies

The table above summarizes the tax revenues under the current 8% model, and the proposed fixed fee model. Under the fixed fee model, the effective gaming tax is reduced to 1.8%. It also shows tax rates in other jurisdictions that currently offer HHRs including Kentucky, Virginia, and Wyoming. Those states' effective tax rates range from 14.6% to 25.5%. Additionally, states with established HHR operations impose a fixed rate on handle including Kentucky at 1.50%, Virginia at 1.25%, and Wyoming at 1.90%. As illustrated in the table above, the proposed fixed fee model would imply a significantly lower rate on handle at 0.15%, based on projected handle of \$318.2 million.

Also, public policy makers, lottery officials and Oregon's Indian tribes may not be aware that customers face different income tax implications when they hit a jackpot on HHR machines as opposed to a VLT or Class III slot machine. A jackpot of \$1,200 or more on a VLT or a Class III EGD in an Indian casino creates a taxable event in which the electronic gaming device locks up and the venue operator issues a W-2G tax form to the player. That is not the case in the pari-mutuel model where such events occur at a far higher amount as they are governed by tax laws for pari-mutuel wagering. In fact, a high-limit player who hits a jackpot on an HHR may not incur a taxable event unless that jackpot is \$30,000. This puts both VLT operators and Indian casinos at a disadvantage since astute customers, particularly knowledgeable, high-limit players would quickly recognize the advantage of gambling in an HHR facility. Again, one must ask is this the intent of public policy makers, or is a more equitable tax policy appropriate?

HHRs will alter the competitive landscape in Oregon's gaming industry. The newest generation of HHRs are now operating in Kentucky, Wyoming, and Virginia. Where they have been deployed, HHR revenue performance has been impressive and competitive with slot machines in casinos and VLTs. One can expect the same to occur in Oregon.



2. UNDERSTANDING ELECTRONIC GAMING

Slot machines, VLTs, Class II bingo machines, and HHRs are all electronic gaming devices (EGDs) that provide customers with gaming entertainment. There are four basic categories of EGDs in the United States: random number generator (RNG) gaming devices, more commonly referred to as slot machines or Class III EGDs, Class II EGDs (also called bingo machines), HHRs, and VLTs as well as a hybrid system called the Tribal Lottery System (TLS) that governs machine gambling in the state of Washington. They differ in that they all operate on different platforms and rely on game math unique to each platform.

There are four essential elements that go into creating an EGD that provides satisfactory gaming entertainment. These include graphics, animation, sound, and game math. The challenge for game designers is to create game titles that can provide similar experiences across different platforms. Most games are designed for traditional slot machines and then recreated to work on other platforms. While graphics, animation, and sound can be easily recreated, adapting a game to a different platform's game math, a critical element of the gaming experience, can be a challenge when building a game for a Class II EGD, HHR, TLS or certain types of VLTs.

Game math is comprised of a number of elements including the amount returned to the player (RTP rate), hit frequency, and game volatility. Some players like games that are less volatile and pay out smaller amounts frequently while other players may enjoy games that are more volatile; they may hit with less frequency but when they do, the payouts are far more generous. RTP rates also vary, often depending on the game denomination, top-line jackpot, or limits imposed by state and tribal regulatory authorities.

TYPES OF ELECTRONIC GAMING DEVICES

RNG GAMING DEVICES

RNG gaming devices, referred to in this report as traditional slot machines or Class III EGDs, are EGDs that rely on a random number generator as their math engine. An RNG is a microchip within the machine cabinet that constantly generates a random stream of numbers. Those numbers are associated with possible game outcomes. At the instant a player presses the *spin reel* button, activating the movement of the slot machine reels, the RNG issues a number and that number determines where the reels will stop and the game's outcome. When the player presses the *spin reel* button again, it initiates a new game that is in no way predicated on the results of the previous game. This is referred to as probability math with replacement.

The vast majority of game titles are written for RNG gaming devices because this methodology offers game designers hundreds of thousands, if not millions of possible



game outcomes. Many popular game titles may then be recreated for other EGD platforms, employing similar graphics, animation, and sound, although the number of possible outcomes may have to be reduced when adapting games to other platforms. It is the breadth and depth of game titles, their game math and ultimately the gaming experiences that they provide that have given traditional slot machines an advantage over other wagering platforms.

CLASS II MACHINES

The terms, Class I, Class II, and Class III were originally created with the passage of the Indian Gaming Regulatory Act of 1988 (IGRA) in order to define the types of gaming activities that would be permitted on Indian lands. Class I gaming refers to traditional tribal gaming activities that have historically been played by tribes in social settings. These types of games vary from tribe to tribe and are not offered on a commercial basis.

Class II gaming is defined by law as:

- 1) Bingo or Lotto, whether or not electronic, computer based or if other technological aids are used.
- 2) Pull-tabs, Punch Boards, Tip Jars, Instant Bingo or other similar games.
- 3) Non-banking card games that a state explicitly authorizes or does not explicitly prohibit and is played legally anywhere in the state. This normally restricts operators to card games that are variations of Poker.

Class III gaming is defined as any game that is not Class I or Class II. It includes the following types of gaming activities:

- 1) House-banked table games such as Blackjack, Roulette and Craps.
- 2) Electronic gaming devices in which the game's outcome is determined by a random number generator inside the machine.

The framers of the IGRA did not anticipate the advances in technology that have occurred in Class II electronic gaming since 1988. Early forms of electronic bingo were comprised of simple bingo machines that were linked together via a central server. Players would play against each other for a fixed prize pool much like one would if using paper bingo cards.

The appearance of game outcomes quickly evolved into more entertaining forms. Subsequent generations of bingo games displayed game outcomes in the form of spinning reels that looked much like traditional slot machines. While the bingo card still occupied a small portion of the game screen and the underlying game math was based on a bingo game, Class II bingo machines evolved to look like traditional slot machines.



Today, a wide variety of game titles built for RNG machines can be found in Class II environments. While Class II games can replicate the graphics, animation, and sound of an RNG device, they are constrained by the underlying bingo game math. It is for this reason that Class II machines operating in markets that compete with RNG slot machines do not normally perform as well, usually generating 6% to 12% less revenue than RNG slot machines.

VLTS

Video lottery terminals are electronic gaming devices normally operated by a state or provincial lottery authority and installed in licensed locations. Depending on the jurisdiction, these machines can operate on RNG platforms or central determinant platforms, where the game outcome is determined by a central server rather than an individual machine.

Most VLT systems operate on a central determinant system. That is, individual machines are connected to a central computer server, which determines each game outcome. When a player at a VLT presses the *spin reels* button, a signal is sent to the server which in turn issues a game outcome to the VLT. This communication occurs instantaneously. VLTs can also be offered on an RNG platform. Oregon and South Dakota are the only states that permit RNG VLTs rather than a central determinant system.

WASHINGTON STATE TRIBAL LOTTERY SYSTEM

Since Oregon's tribal casinos and VLT facilities compete with tribal casinos in Washington, it is important to understand the underlying system on which those machines operate. The Tribal Lottery System (TLS) was developed for the state's tribes in order to overcome certain restrictions on EGD gaming in the state.

TLS is essentially an electronic scratch card system. Paper scratch cards, like paper pull tabs, have a certain number of tickets in every box of tickets, some of which offer winning results, while others do not. In a paper environment, a box of scratch cards is opened, and cards are sold to customers. The box is eventually depleted and replaced with a fresh box. An electronic version operates in a similar manner. As an electronic ticket is drawn out of an electronic barrel and the outcome is displayed on the machine in an entertaining format (spinning reels), the number of tickets in the electronic drum is reduced by one. This is called probability math without replacement. As more electronic tickets are drawn, the number of tickets in the barrel is reduced. Periodically, another box of electronic tickets is tossed into the drum to replenish those tickets that were played.

The TLS system puts constraints on game designers that have to work within this kind of game math. Since the TLS is only available in Washington, many game manufacturers choose not to adapt games to this market. It is just too much work to develop games for



a limited number of machines. As such, Washington's Indian casinos do not offer the breadth and depth of EGDs found in Oregon's casinos and VLT locations.

Despite these constraints, customers playing at Washington's Indian casinos enjoy entertaining gaming experiences and those tribal casinos successfully compete with casinos in adjacent jurisdictions that offer Class III slot machines. The ilani Casino Resort in Ridgefield, WA successfully competes with the Spirit Mountain Casino in Grand Ronde, OR for a share of the Portland market. Northern Quest Casino & Resort in Airway Heights, WA competes with the Coeur D'Alene Casino Resort in Worley, ID for the Spokane market. They do so because they are located closer to their core customers in nearby metropolitan areas. In these cases, convenience in the form of a shorter commuting time trumps gaming entertainment experience as the determining factor in where customers choose to play.

HHRS

HHRs are electronic gaming devices whose game math is predicated on pari-mutuel wagering. Like Class II bingo machines, they evolved from what were at first instant racing machines to what are now HHRs whose appearance, graphics, animation, and sound are nearly identical to RNG devices.

Modern HHRs have their roots in an idea first proposed by Eric Jackson, general manager of Arkansas' Oaklawn Park racetrack in 1997. His idea was that data from the results of horse races run in the past could be used as the game math for a new kind of EGD. This data would be logged into computer software, and customers could wager on randomly chosen races. Wagers would be separated into betting pools for different winning possibilities, such as picking the winner of the race, the top three finishers in exact order, or any of three selections finishing first and second. Customers would not know the actual races they were betting on, but they could use handicapping information, such as winning percentages of jockeys and trainers to make a somewhat thoughtful decision, essentially handicapping past races. After placing the wager and pressing a button, a video showing the last few seconds of the race would be displayed.

The concept was taken to AmTote, a leading provider of totalizers for the racing industry, who in turn developed the first versions of the game. As with early versions of Class II bingo machines, it did not take long for game designers to display the outcome of these anonymous races that occurred sometime in the past in a more entertaining format, in this case spinning reels and traditional slot symbols. The last few seconds of an actual horse race would appear on a small video monitor while a larger display depicted slot

symbols. The various prizes of the pari-mutuel pool would then be displayed as winning slot machine outcomes.¹

AmTote created a subsidiary called PariMax to manufacture their machines and games. These machines slowly evolved and with each generation the gaming entertainment experience improved. For example, since the process of handicapping can be a long and tedious process and have little impact on the game's outcome, the manufacturer included a button called, *handi-helper* in which the machine did the handicapping and picked the best outcome. This was similar to early versions of Class II machines that required a player to first hit the *daub* button, then the *play* button.

HHRs continued to gain traction in select markets such as Kentucky, but machine performance did not match the performance of EGD machines. Nevertheless, additional manufacturers began to develop their own versions of HHR machines with Exacta and Castle Hill entering the market over the past decade. Over time, these manufacturers created more compelling game titles and as they did, machine performance improved.

A seminal event took place when Churchill Downs Inc (CDI) approached Ainsworth Slot Technologies, a major worldwide manufacturer of electronic gaming devices and asked that they develop an HHR platform in order to replicate Ainsworth's RNG games. Ainsworth in turn developed their own central determinant system based on pari-mutuel math, and initially adapted 75 of their game titles to work within the confines of their HHR platform. On September 14, 2018, 900 Ainsworth machines were deployed at CDI's new property in Louisville, KY called Derby City Gaming. The results were outstanding with Derby City's HHRs generating gaming revenues of \$100 million in its first full year of operations in 2019. The impact of that new facility on Caesars Southern Indiana, a full-service casino resort 30 minutes away, was significant and is discussed later in this report.

Ainsworth, whose system is also discussed later in this report, went one step further. The company developed a game kit, in which other manufacturers could adapt their machine cabinets and games to work on the Ainsworth HHR system. Since then, IGT, Scientific Games, Konami, and Aristocrat entered into such agreements, and have modified their machine cabinets and games to work on this platform. This has led to an exponential growth in the number of popular game titles now available in HHR environments.

¹ (<https://www.cdcgamingreports.com/frank-floor-talk-the-hhr-game/>).

OTHER FACTORS TO UNDERSTAND AND SUMMARY

MACHINE CABINETS

All manufacturers of EGDs spend considerable resources designing machine cabinets. These cabinets differ in size, shape, number of video displays, trim, lighting, button bars, and other design elements. Game cabinets are the eye candy that attract players to a bank of machines and help create energetic and fun gaming environments. They not only serve as striking visual elements, but enhance the overall gaming experience with dynamic sound, animation, comfortable seating, and other elements. Manufacturers have in turn adapted some, if not all of their game cabinets, to work on HHR systems.

GAME TITLES

Game titles are the games that reside on game cabinets, and it is what customers play. Successful game titles can generate fans that seek out their favorite games whenever they enter a casino. Each year, manufacturers introduce dozens of game titles with the hopes of attracting players and earning their loyalty. A successful game title can remain popular for years, spawning variations of the same theme. IGT's Wheel of Fortune series, Aristocrat's Buffalo series, and their Timber Wolf series have become brands that have gained followings in casinos across the world, and are now available on HHR platforms. People go to casinos, racinos, slot halls, and HHR facilities and seek out these game titles. They are loyal to them despite the platform that they may reside on.

SUMMARY OF EGD ATTRIBUTES

RNG-based electronic gaming devices, often referred to as slot machines, are the most popular kinds of machines because they have the largest installed base across the globe. RNG math also offers game designers the ability to create a wide variety of game experiences that appeal to different types of players including those that like high volatility games with infrequent large jackpots, low volatility games with frequent smaller payouts, linked progressives, wide-area progressives, and games with a wide variety and types of bonus rounds. Machine manufacturers devote the majority of their research and development budgets to the creation of games and cabinets that work on the RNG platform. As such, RNG games offer the best combination of graphics, animation, sound, and game math.

VLTs also offer game manufacturers a certain degree of latitude even though the vast majority of those games operate on a central determinant platform. The market for VLTs is also sizable. Many state lotteries and provincial lotteries in Canada offer VLTs at multiple locations as well as in European jurisdictions.

Class II machines, primarily found in Indian casinos, do not require a compact with the state. As such, they are often found in jurisdictions where the number of Class III machines are capped or in tribal casinos that do not have a compact with the state. They remain the most dominant form of EGD gaming in Oklahoma, where Class III machines are subject to a revenue share agreement with the state. Since their market is fairly large



and mature, most machine manufacturers offer Class II products, and they do a good job of replicating the graphics, animation, and sound found in Class III games. Their fundamental limitation is their game math, which limits the number of possible game outcomes. As such, many popular game titles play differently when adapted to Class II environments.

TLS machines found in Washington face the greatest challenges. They are constrained by their fundamental game math, based on electronic scratch cards. Since they are only found in the state of Washington, there is a limited market. While IGT, Scientific Games, and Aristocrat all make games for that market, the number of game titles that they develop for that market is limited. In fact, some Washington casinos now install Class II machines in order to offer customers a more diverse selection of games.

The most recent iterations of HHRs have overcome the limitations that were once found on machines based on pari-mutuel math. Ainsworth and Exacta have created HHR platforms and game kits that can now be licensed to major manufacturers, allowing them to adapt popular games more easily to the HHR format. As important, the pari-mutuel model allows for a wide variety of game outcomes. While not as robust as the RNG platform, the HHR platform offers game designers wider latitude to replicate the game math found on RNG games. In addition, the newest version of HHR games have graphics, animation, and sound that closely resemble RNG games. The gap between the two continues to narrow. The table below summarizes the major attributes of the EGD platforms discussed.

Summary of Major EGD Attributes						
EGD Type	Electronic Gaming Device	Game Math Utilized	Player Experience	Player Appeal: Graphics-Sound-Animation	Game Title Depth	Top Manufacturers
Class III	Yes	RNG*	Best	Excellent	Best	Ainsworth, SciGames, IGT, Aristocrat, Konami
HHR	Yes	CDS based on Pari-mutuel**	Excellent	Excellent	Good (growing rapidly)	Ainsworth, SciGames, IGT, Aristocrat, Konami
VLT	Yes	RNG or CDS**	Excellent	Excellent	Excellent	Ainsworth, SciGames, IGT, Aristocrat, Konami
Class II	Yes	Electronic Bingo	Good	Excellent	Excellent	Ainsworth, SciGames, IGT, Aristocrat, Konami
TLS	Yes	Electronic Scratch Card	Good	Good	Very Limited	SciGames, IGT, Aristocrat

Source: C3 Gaming *RNG or Random Number Generator **CDS or Central Determinant System/Server



3. RECENT HHR DEVELOPMENT TRENDS

HHR PLATFORM PROVIDERS

HHR platforms are essentially central determinant servers to which HHRs are connected to, and which provide game outcomes based on the pari-mutuel math model. There are now four HHR platforms serving the market. These platform providers have in turn developed their own game cabinets and game titles. Two of those providers have entered into licensing agreements with the country's leading EGD manufacturers and content providers.

It must be noted that gaming facilities that feature HHRs are not confined to one HHR platform provider. They are free to employ multiple platforms in one facility, thus offering players a wide variety of electronic gaming devices and game titles.

AINSWORTH

The C3 Consulting Team had visited the Ainsworth Gaming Technology's Las Vegas manufacturing facilities on multiple occasions over the past three years, and were provided with demonstrations of their HHR products, most recently in September of 2021. To date, Ainsworth has 150 game titles that have been adapted to their HHR platform and work on all seven of Ainsworth's cabinets. Ainsworth's system also allows for games to be downloaded onto game cabinets without opening up the machines and changing out computer boards, giving HHR facility operators greater flexibility in designing and changing the merchandise (game titles) on their gaming floors.

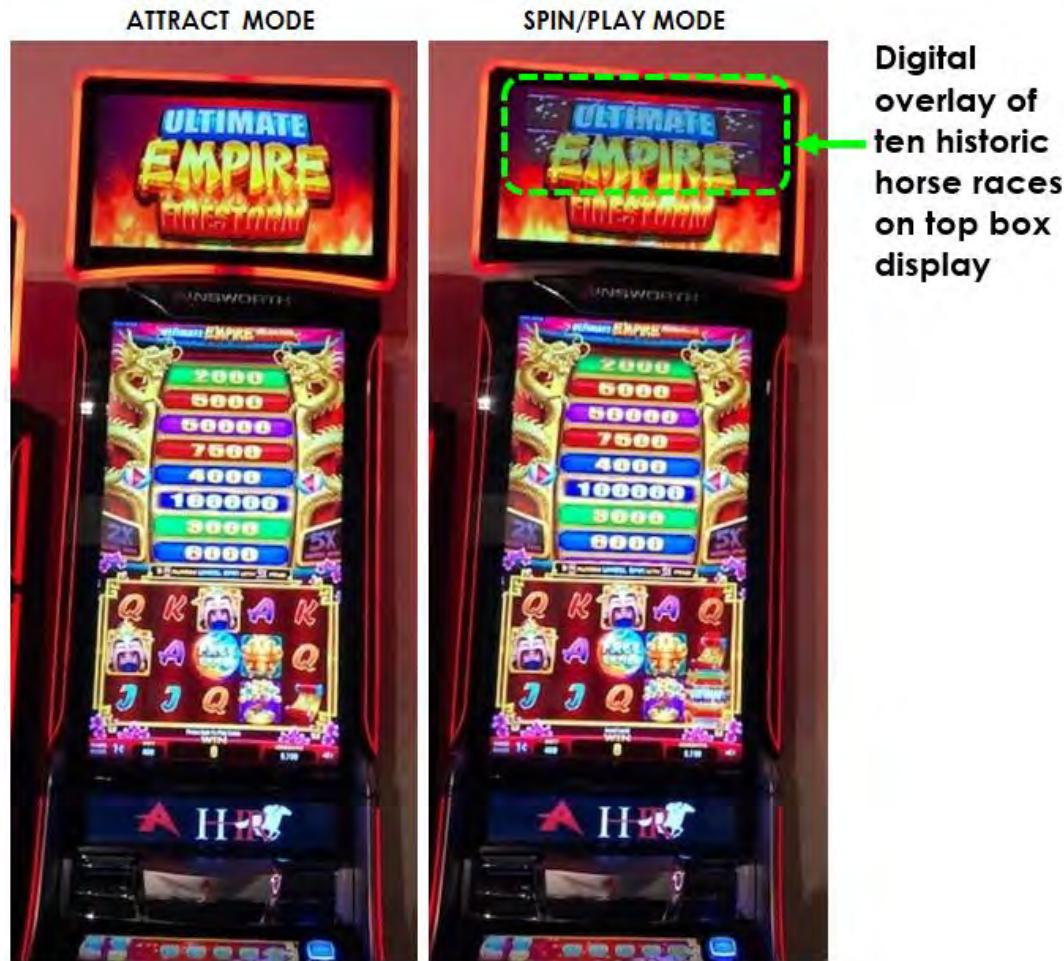
As previously mentioned, since the system's initial deployment at Derby City Gaming, Ainsworth entered into licensing agreements to provide game kits with IGT, Scientific Games, Konami, and Aristocrat. These agreements will increase exponentially the number of game titles available in HHR environments. As such, more and more regional and national popular game themes will continue to be installed in HHR gaming facilities.

HOW AINSWORTH GAMES PLAY

The machine that was demonstrated during the Consulting Team's most recent visit (seen in the picture below) was comprised of two digital screens: a top box and large central monitor that customers' eyes focused on. The lower portion of the monitor displayed the video reel strips and an upper portion was used as a display for bonus rounds. The top box contained a video display that remained in an attract mode until game play was initiated.

When the player hits the *spin reels* button, the reels begin to spin, and the top box's monitor displayed a digital overlay of ten historic horse races as indicated by the arrow below. The digital facsimiles of the races are almost imperceptible to the customer as their eyes are focused on the lower screen.





All Ainsworth games default to the *auto handicap* feature, which basically means the player foregoes trying to handicap the game and the machine automatically selects the best outcome. A player can opt to handicap the game by hitting the *manual handicap* button. This brings up a help screen where the numbers 1-10 appear on ten different rows. Each row represents an historic race at a particular track, although the name of the track and the date of the race are not revealed to the player. The player can then select the order of each past race result, repeating the process ten times. Then the player can go back and hit the *spin reel* button. This is a time-consuming exercise and in all probability reduces the chances of the player doing a better job of handicapping the game than the machine. The player can, at any time in the handicapping process touch the *Auto Pick* button and allow the machine to select the optimal choice for each race.

An advantage player may think that it is possible to actually handicap the game by getting on the phone with a colleague who might have access to the history of all the races in the United States over the last several decades. Of course, aside from trying to figure out the exact race he is betting on, the handicapper is going to assume that the trick is to pick the Win, Place, and Show finishers. In reality, the computer selects three

horses and randomly selects their final position. It may select the fourth-place finisher, the second-place finisher, and the eighth-place winner so the winning combination would be 4-2-8. Those results then go into a mix of ten different races.

HOW IT PLAYS

The Ainsworth machines play like a VLT or RNG device, with bonus rounds, free games, and progressives. The only difference to the player is the digital display on the top box and the auto handicap button on the button bar.

PARIMAX

PariMax, a division of AmTote, was the progenitor of the historic racing machine, and while their platform, game cabinets, and game offerings have made significant advances over the past decade, their games are not as recognizable to EGD players nor as appealing as those created by the major manufacturers. PariMax offers over fifty game titles on seven different game cabinets, including a bar top cabinet.

PariMax still adheres to the philosophy that their games are horse racing machines, and collateral material available on their website supports this philosophy. It reads in part:

PariMAX is a fully pari-mutuel wagering machine that allows players to place wagers on historical horse races and the option to experience a graphical enhanced display of the outcome of those wagers in a format similar to other electronic gaming machines. The outcomes of all wagers are solely determined by the outcome of the common pari-mutuel wagers placed on the historical horse races.²

PariMax's website and sales material also cling to the notion that their games are pari-mutuel wagering machines and not electronic gaming devices, probably in an effort to appease regulators and state legislators that their games are not so much slot-like EGDs, but some kind of racing machine that allows players to bet on past horse races.

EXACTA

Exacta was founded in 2012 and has quickly advanced to take a dominant position in the HHR market. They offer about 90 game titles on three cabinet styles. More importantly, they too have entered into licensing agreements with a number of machine manufacturers including IGT, Scientific Games, Konami, AGS, Incredible Technologies, and Gaming Arts so that those manufacturers can operate HHR versions of their games on Exacta cabinets and its HHR system.

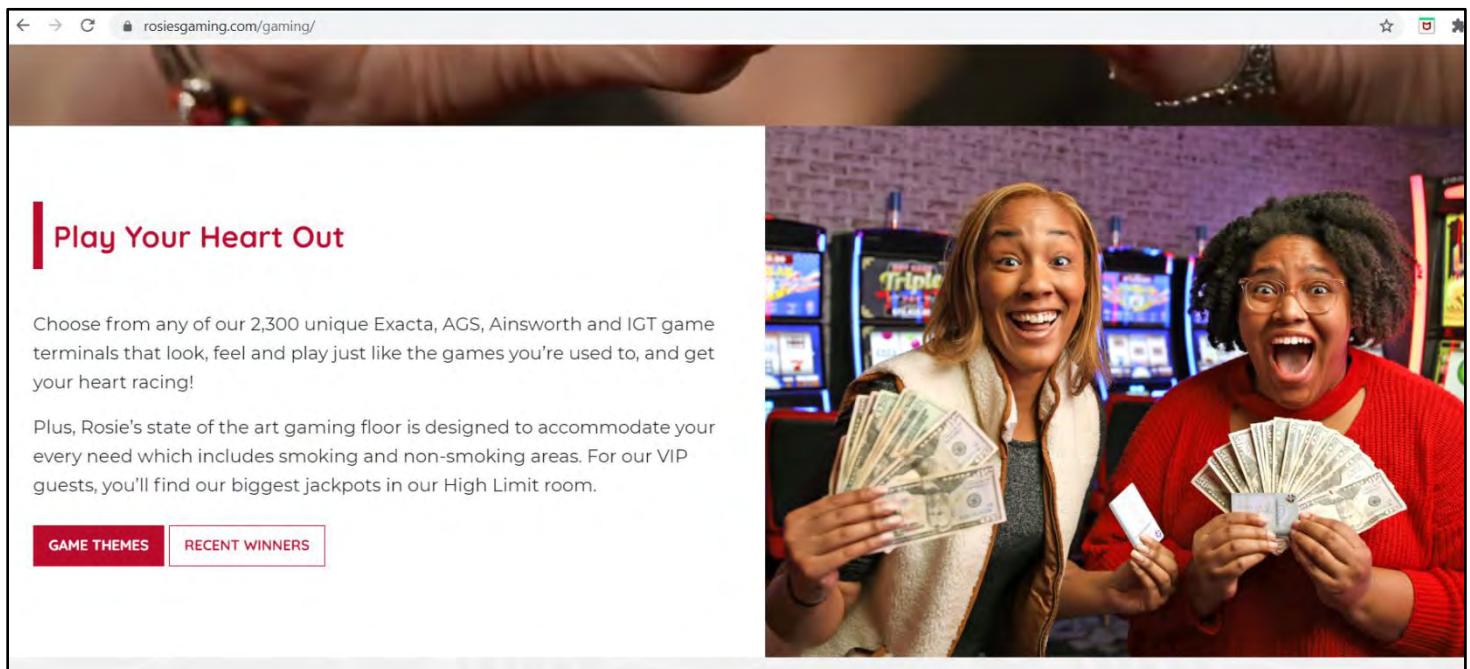
Exacta's pari-mutuel math model is different from Ainsworth in that the math is based on picking the exact win, place, and show for a number of races that are not disclosed to the player prior to the initiation of game play. While the probability math is different, this

² <https://parimax.com/faq>



methodology still offers game designers a fairly large combination of outcomes, making it easier to replicate RNG games on their HHR platform.

Exacta probably has the largest installed base of HHR platforms in the country although an exact machine count is beyond the scope of this assignment (at least 2,200 are in operation throughout Virginia). The Exacta platform can be found at Red Mile Gaming & Racing and Ellis Park in Kentucky, six Rosie's Gaming Emporium locations in Virginia, and seven Horse Palace locations in Wyoming. They are also currently the exclusive HHR platform in the state of Virginia. Below is a portion of Rosie's Gaming Emporium website that advertises Exacta, AGS, Ainsworth, and IGT game terminals "that look, feel and play just like the games you're used to."

A screenshot of a website for Rosie's Gaming Emporium. The URL in the address bar is rosiesgaming.com/gaming/. The page features a large image of two women in a casino setting, both holding up large amounts of cash and smiling. To the left of the image, there is a section with a red header containing the text "Play Your Heart Out". Below this header, there is a paragraph of text and two buttons: "GAME THEMES" and "RECENT WINNERS".

Choose from any of our 2,300 unique Exacta, AGS, Ainsworth and ICT game terminals that look, feel and play just like the games you're used to, and get your heart racing!

Plus, Rosie's state of the art gaming floor is designed to accommodate your every need which includes smoking and non-smoking areas. For our VIP guests, you'll find our biggest jackpots in our High Limit room.

[GAME THEMES](#) [RECENT WINNERS](#)

Below is a website screenshot from the Newport Racing & Gaming facility located in the competitive Cincinnati market that is advertising the extremely popular Wheel of Fortune game in HHR format that is widely available in casinos across the country.

Homepage - Newport Racing and Gaming

Contact Us Facebook Youtube Instagram

NEWPORT RACING & GAMING

Gaming Dining Players Club Promotions Simulcast Careers

Newport Racing & Gaming

Our newest games are here!!!

WHEEL OF FORTUNE

TAKE THEM FOR A SPIN TODAY!

Must be 21 or older. Gambling problem? Call 1-800-GAMBLER.

CASTLE HILL

Castle Hill Gaming started as a developer of Class II gaming devices and used its expertise in Class II environments to develop its own HHR system. They currently feature approximately 80 game titles, with two cabinets operating on their HHR platform. While Castle Hill has a reasonably sized library of game titles and expertise in both Class II and Class III games, they have not yet licensed their platform to major manufacturers. As such, it remains to be seen if they can remain competitive in the HHR market. Castle Hill is currently field testing a mechanical reel product, which is unique in HHR environments.

THE SEMINOLE TRIBE OF FLORIDA

The Seminole Tribe of Florida is the only tribe in the state of Florida authorized to offer Class III gaming, including slot machines and house-banked table games. The tribe has an integrated casino resort in Tampa, another in Coconut Creek, and the flagship Seminole Hard Rock Casino Resort in Hollywood, as well as three smaller properties. The tribe's casinos compete for a share of the southern Florida market with a Class II Indian casino near Miami along with eight racetracks and Jai-Alai frontons that feature RNG slot machines and player-banked table games. It enjoys market exclusivity from northern Palm Beach County to the Alabama border to the north and the Mississippi border to the west, an area that includes approximately 14 million residents. To protect its market position, the tribe supported a number of recent referendums including Amendment 3.

AMENDMENT 3

In 2018, Florida voters passed Amendment 3. The measure was designed to provide voters with the “exclusive right to decide whether to authorize casino gambling in the State of Florida.” Amendment 3 made the citizen initiative process “the exclusive method of authorizing casino gambling,” meaning the Florida State Legislature would not be permitted to authorize casino gambling through statute or by referring a constitutional amendment to the ballot.³

This amendment ensures that Florida voters shall have the exclusive right to decide whether to authorize casino gambling by requiring that in order for casino gambling to be authorized under Florida law, it must be approved by Florida voters pursuant to Article XI, Section 3 of the Florida Constitution.

Under the measure, card games, casino games, and slot machines are considered casino gambling. Under the measure, pari-mutuel wagering on horse racing, dog racing, and jai alai exhibitions are not considered to be casino gambling. The measure did not affect casino gambling on Native American tribal lands established through state-tribe compacts.

What Amendment 3 did was take any decision to expand gaming in the state out of the hands of legislators and placed it in the hands of voters, that is statewide voters. A northern Florida county wishing to add slot machines to their local racetrack would require an affirmative vote from the majority of the voters in the state. To conduct a political campaign statewide would require a tremendous amount of funding, which in turn would be countered by opponents to the measure, most notably the Seminole Tribe of Florida and the Disney Corporation.

For all practical purposes, any future expansion of gaming in the state would occur through a revision to the Tribal-State Compact between the Seminole Tribe and the Governor, or an incredibly expensive referendum placed before voters statewide. Nevertheless, a loophole remained that would allow the state’s remaining 17 pari-mutuel facilities the ability to one day offer HHRs. That loophole was removed in the 2021 Seminole Gaming Compact.

THE 2021 SEMINOLE GAMING COMPACT

The Seminole Tribe recently entered into a new Compact with the State of Florida. The Compact allowed the tribe to introduce a greater variety of house-banked table games along with sports betting. It also greatly diminished the threat of pari-mutuel operators adding the most modern forms of HHRs. The Compact includes the following language that specifically addresses HHRs:

³ [https://ballotpedia.org/Florida_Amendment_3,_Voter_Approval_of_Casino_Gambling_Initiative_\(2018\)](https://ballotpedia.org/Florida_Amendment_3,_Voter_Approval_of_Casino_Gambling_Initiative_(2018))

1. After each wager is placed, the Historic Racing Machine must display a video of at least the final eight (8) seconds of the horse or greyhound race before any prize is awarded or indicated on the Historic Racing Machine.
2. The display of the video of the horse or greyhound race must occupy at least seventy percent (70%) of the Historic Racing Machine's video screen and no Historic Racing Machine may contain or be linked to more than one video display.
3. No casino game graphics, themes or titles, including but not limited to depictions of slot machine-style symbols, cards, dice, craps, roulette, lotto, or bingo may be used.
4. No video or mechanical reel displays are permitted.⁴

What the aforementioned language does is prohibit any HHR machine manufactured over the past fifteen years, essentially only allowing pari-mutuel operators to offer only the first generation of instant racing machines. Any attempt to create a gaming experience remotely similar to a modern HHR is strictly prohibited. In addition, should a pari-mutuel facility wish to install these kinds of games, they are limited to no more than 350 units.

Clearly, the Seminole Tribe of Florida recognized that modern HHR machines offer an electronic gaming experience that is very similar to the Class III machines that the tribe offers. To prevent any possible erosion of market share, it insisted on language that all but eliminated the gaming entertainment experience of modern HHR machines.

⁴ 2021 Gaming Compact Between The Seminole Tribe of Florida and The State of Florida, pg. 9
<https://www.flgov.com/wp-content/uploads/pdfs/2021%20Gaming%20Compact.pdf>

4. TAX POLICIES

PLAYER TAX OBLIGATIONS ON RNG, VLT, CLASS II, AND HHR MACHINES

HHR machines have a lesser-known yet very significant advantage in the treatment of income taxes over VLTs, Class II, and Class III slot machines for both players and operators.

For any player gambling on a VLT, Class II or Class III gaming device, any gaming outcome resulting in an award of \$1,200 or over requires a property staff member (usually a slot attendant) to issue a W-2G tax form to the player when paying the jackpot (often referred to as a hand pay). A form is also sent to the Internal Revenue Service. Players also have to report their winnings as taxable income. Please note that it is not \$1,200 of winnings but \$1,200 of return of capital. That is to say, if a player wagers \$300 on a spin on the slot machine and wins \$900, the total \$1,200 returned requires a tax form to be issued. If a player wagers \$1,500 on video blackjack on a slot machine, even if the player gets a push, the full \$1,500 returned to him requires a W-2G to be issued and included in the player's tax return, even though he did not win anything in this particular example.

For HHR machines, the tax policy is different. Since these machines technically are horseraces occurring in pari-mutuel facilities, the same tax laws pertaining to horseracing apply to HHR machine winnings. Only winnings of over 300-to-1 and over \$600 require the issuance of a W-2G. Both criteria need to be met: over 300-to-1 and over \$600. This significantly lowers the chance and frequency of players being issued W-2Gs and operators having to devote labor to the process.

Players get to keep more of their winnings free of taxes and operators are burdened by far less paperwork and labor costs, plus players and operators both benefit from less down time spent completing tax forms. This also entices higher-worth players who prefer higher denomination games to take their business to HHR properties. The principal losers under this policy are VLT operators and tribal casinos that have to issue a W-2G for every return of credits equaling or over \$1,200.

TAXATION ON GAMING REVENUE

Earlier this year, Oregon Senate Bill 165 (SB 165) was presented to the Oregon Legislature. It proposes revising how revenues derived from historic racing machines are distributed to organizations representing and promoting Oregon's horse racing industry. It specifically addresses The Flying Lark at Grants Pass Downs. It calls for changing how distributions are to be calculated from a percentage model to a fixed payout model.

The overall amount wagered on a horse race is called "handle." After paying out winning bettors, the amount left over is the "take out" rate, which is used to pay winning horse owners and jockeys (the "purse") and to pay the costs of operating a racetrack.



Under current law, the take out rate is 20% for live racing and OTBs, and 8% on HHR machines. SB 165 proposes only changing HHR fees to a fixed fee model, increasing at an annual rate of 3% and to be distributed to the following organizations.⁵

Organization	2022	2027	2029
Oregon Racing Commission	\$ 200,000	\$ 232,000	\$ 246,000
Oregon Supplement Fund	\$ 20,000	\$ 23,200	\$ 24,600
OTOBA	\$ 150,000	\$ 174,000	\$ 184,500
OQHRA	\$ 50,000	\$ 58,000	\$ 61,500
Backside Fund	\$ 50,000	\$ 58,000	\$ 62,500
Total	\$ 470,000	\$ 545,200	\$ 579,100

Source: "Modernizing Financial Support For Oregon Horse Organizations"
OTOBA and Crosswater Strategies

In a report entitled, "Modernizing Financial Support For Oregon Horse Organizations," submitted to the Oregon Legislature in support of SB 165, the authors state:

"While we hope this entertainment center will be successful, it is extremely difficult to estimate the amount that will be wagered on historic horse races, especially since these Historic Racing Machines will be based in Grants Pass, and not in the larger Portland metropolitan area. The current rates in the statute for the Historic Racing Machines does not make it financially viable for Grants Pass Downs as the operator given the uncertainty that exists."

The Consulting Team at C3 Gaming take exception with this statement. Over the past 40 years, the gaming industry has developed sophisticated financial models that can accurately predict future revenues that can be derived from any kind of facility housing electronic gaming devices, off-track betting facilities, sports betting, table games or other forms of wagering.

Utilizing gravity model methodology, a proven and accepted method of accurately forecasting gaming revenue for a new or existing jurisdiction, and measuring the effects of cannibalization from other gaming facilities, C3 Gaming forecasts that The Flying Lark with 250 HHR machines, can expect to generate \$25.5 million in HHR revenue in a stabilized year. The table below summarizes the tax revenues under the current 8% model, and the proposed fixed fee model. Under the fixed fee model, the effective gaming tax is reduced to 1.8%.

The table also shows tax rates in other jurisdictions that currently offer HHRs including Kentucky, Virginia, and Wyoming. Those states' effective tax rates range from 14.6% to 25.5%. Additionally, states with established HHR operations impose a fixed rate on handle

⁵ <https://olis.oregonlegislature.gov/liz/2021R1/Downloads/PublicTestimonyDocument/27400>



including Kentucky at 1.50%, Virginia at 1.25%, and Wyoming at 1.90%. As illustrated in the table below, the proposed fixed fee model would imply a significantly lower rate on handle at 0.15%, based on projected handle of \$318.2 million.

Effective Gaming Tax Rates on HHRs Comparison							
Tax Regime	Tax Payments	HHR Revenue	Effective Rate on Revenue	Time Period	HHR Handle	Effective Rate on Handle	
Oregon Current at 8%	\$ 2,036,640	\$ 25,458,000	8.0%	Flying Lark Est. 2022	\$ 318,225,000	0.64%	
Oregon Proposed Fixed	\$ 470,000	\$ 25,458,000	1.8%	Flying Lark Est. 2022	\$ 318,225,000	0.15%	
Kentucky Total	\$ 69,114,645	\$ 399,232,209	17.3%	Statewide FY 2021	\$4,607,642,991	1.50%	
Virginia Total	\$ 30,265,258	\$ 206,877,939	14.6%	Statewide FY 2021	\$2,421,220,655	1.25%	
Wyoming Total	\$ 15,076,066	\$ 59,076,313	25.5%	Statewide CY 2019	\$ 793,477,137	1.90%	

Source: C3 Gaming, Kentucky Horse Racing Commission, Virginia Racing Commission, Wyoming Gaming Commission, Oregon Racing Commission, OTOBA, Grants Pass Downs, Crosswater Strategies



5. HHR IMPACTS IN EXISTING CASINO MARKETS

To quantify the impacts of HHRs on existing gaming markets and what can be expected in Oregon as HHRs are introduced, the Consulting Team researched gaming revenue performance of casinos in relevant markets. C3 Gaming identified mature gaming markets with casinos that have been operating for several years prior to HHR facilities coming online in their respective trade areas. To effectively measure these impacts, the Consulting Team also utilized the following criteria to identify appropriate markets: 1) markets where public data was available for analysis, 2) markets with HHR gaming facilities that opened in more recent years to examine the impact of new generation HHR games, and 3) only analyzing cases during a pre-pandemic timeframe.

Given the aforementioned set of criteria for analysis, the Consulting Team focused on Derby City Gaming's impact on Caesars Southern Indiana in the Louisville, KY market and the impact of Red Mile Gaming & Racing on Belterra Casino Resort in the Lexington, KY market. While additional HHR gaming facilities have opened in recent years in other markets, those cases did not fit all of the prescribed criteria for various reasons.

These cases include the Newport Racing and Gaming HHR facility that opened minutes from the Hard Rock Casino Cincinnati and Belterra Park, a VLT gaming facility in Ohio. Another such instance is the Oak Grove Racing, Gaming & Hotel property that opened 90 minutes from both Tropicana Evansville in Indiana and Harrah's Metropolis in Illinois. Newport and Oak Grove both opened in September/October of 2020. As such, it is not possible to properly evaluate or isolate the impact that these facilities had on surrounding casinos due to pandemic shutdowns, and restrictions which have caused drastic fluctuations in gaming revenue regardless of new market entrants.

Finally, C3 Gaming presents comparable win per unit per day metrics (WPUPD) of HHR facilities to casino resorts that have had to operate in the same pandemic conditions. Despite the operating conditions to contend with during the pandemic, both HHRs and slots at Class III casinos have generated similar WPUPD. It is also worth noting that five HHR gaming facilities opened in the state of Virginia beginning in April of 2019. In total, these five facilities offer over 2,200 HHRs throughout the state and garner an impressive WPUPD. However, these facilities are not geographically proximate to any existing relevant casino competitors.

LOUISVILLE, KY MARKET

As previously mentioned in this report, Derby City Gaming in Louisville, KY installed the newest generation of HHRs in September of 2018, which proved successful in cannibalizing gaming revenue from Caesars Southern Indiana. Derby City Gaming is situated on the Kentucky side of the Ohio River and is a 30-minute drive from Caesars Southern Indiana on the Indiana side of the Ohio River. Derby City opened with 900



machines in September 2018 and ramped up to 1,000 units within a year. Caesars Southern Indiana operated as a riverboat casino from late 1998 until December of 2019, when it moved its casino into a land-based facility. It is a full-scale casino resort with approximately 1,200 slots, 70 table games, a 503-key hotel, entertainment/nightlife, multiple dining options, a sportsbook, and retail shopping.

IMPACT TO CAESARS SOUTHERN INDIANA

The table below illustrates Caesars Southern Indiana's net slot revenue performance before and after Derby City's opening. Derby City Gaming is part of the Churchill Downs Inc. family of properties that own and operate other pari-mutuel gaming facilities and Class III casinos across the U.S. Net slot or HHR revenue is defined as revenue that excludes free play as reported by the Kentucky Horse Racing Commission. To make an appropriate comparison, the Consulting Team utilized data from the Indiana Gaming Commission to calculate net slot revenue for the Indiana properties discussed in this report.

Caesars Southern Indiana - Net Slot Revenue Impact					
Month	Year	Before Derby City Open	After Derby City Open	% Change	
Sep	2017/2018	\$ 15,747,093	\$ 14,117,293	-10%	
Oct	2017/2018	\$ 15,140,482	\$ 13,043,442	-14%	
Nov	2017/2018	\$ 16,000,389	\$ 13,159,396	-18%	
Dec	2017/2018	\$ 15,468,961	\$ 14,503,169	-6%	
Jan	2018/2019	\$ 14,207,342	\$ 13,054,698	-8%	
Feb	2018/2019	\$ 10,417,297	\$ 10,459,981	0%	
Mar	2018/2019	\$ 16,910,486	\$ 16,117,501	-5%	
Apr	2018/2019	\$ 16,544,934	\$ 13,399,270	-19%	
May	2018/2019	\$ 16,681,683	\$ 14,826,309	-11%	
Jun	2018/2019	\$ 16,135,252	\$ 13,266,988	-18%	
Jul	2018/2019	\$ 15,111,861	\$ 13,135,299	-13%	
Aug	2018/2019	\$ 14,885,125	\$ 12,413,606	-17%	
12-Month Total		\$183,250,905	\$161,496,952	-12%	

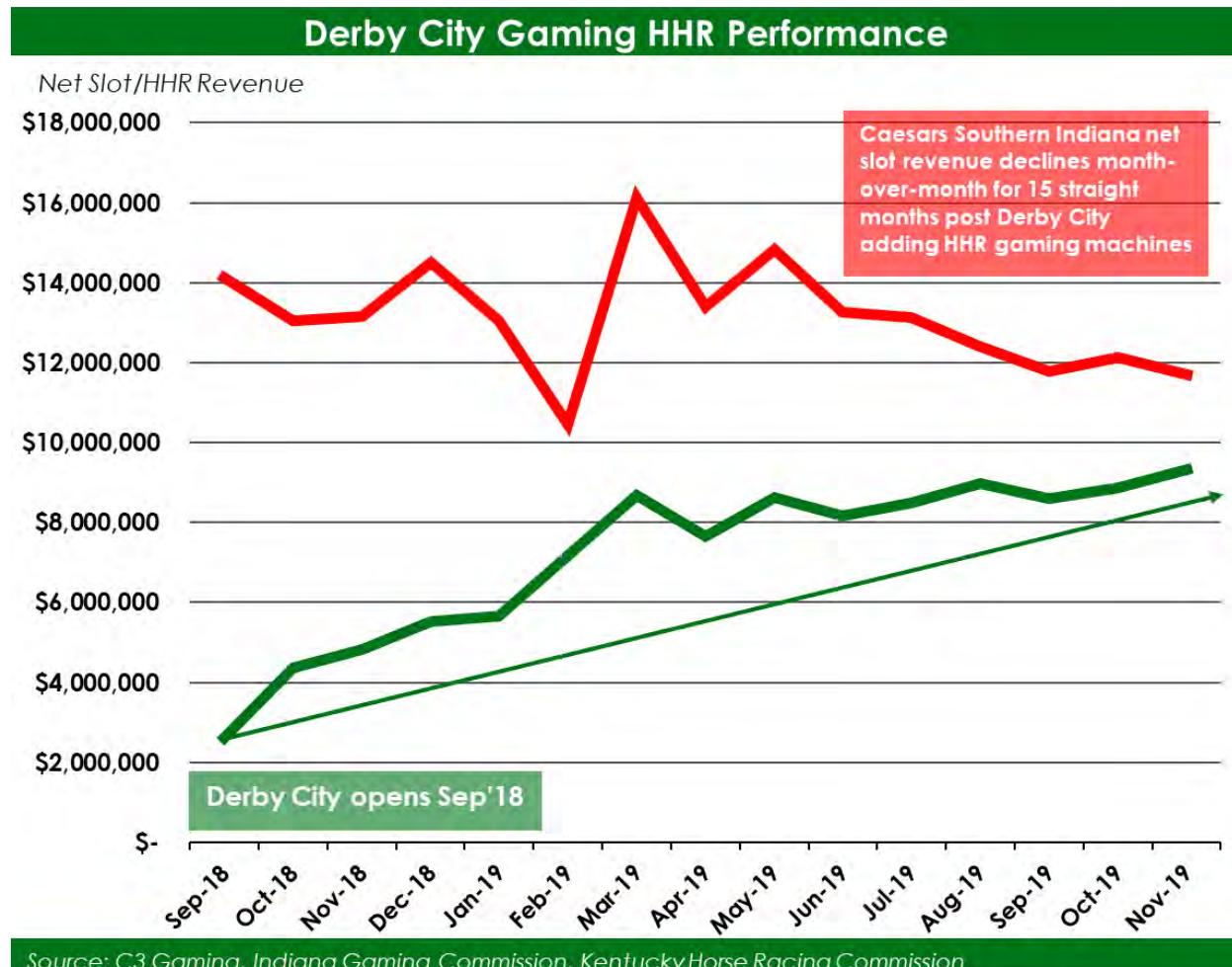
Source: C3 Gaming, Indiana Gaming Commission

As a result of Derby City's opening in the Louisville market, Caesars Southern Indiana realized a 12% decline in net slot revenue year-over-year, ending August 2019. This is evident as Caesars Southern Indiana generated net slot revenue of \$183.3 million during the period from September 2017 through August 2018, or the 12-month period just prior to Derby City installing 900 HHRs in September 2018. In the subsequent 12-month period from September 2018 through August 2019, Caesars Southern Indiana generated \$161.5 million in net slot revenue, a decline of \$21.8 million or a 12% negative impact. The direct cause of this decline was likely due to gamers seeking a more convenient gaming option

in the Louisville market at Derby City despite the relatively higher attractiveness of Caesars Southern Indiana over Derby City. Simply put, gamers that prioritize where they gamble because of location and convenience chose to play at Derby City and continue to do so according to Derby City's growth.

DERBY CITY RAMP UP AND GROWTH

The following graph plots monthly net HHR and net slot revenue for Derby City and Caesars Southern Indiana, respectively from September 2018 through November 2019. Derby City net HHR revenue quickly rose to over \$9.3 million in November 2019 while Caesars Southern Indiana experienced a 15-month, month-over-month downward trend. Since reopening after the shutdowns in 2020, Derby City has averaged nearly \$11.0 million per month in net HHR revenue while Caesars averaged roughly \$13.0 million over the same period from July 2020 through June 2021. The convergence of monthly revenue generation supports the argument that the gaming entertainment experiences of HHRs and RNG slots in the Louisville market are imperceptible to gamers alike in the market.



LEXINGTON, KY MARKET

Up until September of 2015, gamers in the Lexington, KY market did not have a convenient option for gaming. Lexington area residents could choose to drive 90 minutes north to the Belterra Casino Resort or properties in Cincinnati, OH. Additionally, residents of the Lexington market could drive 90 minutes west to what was then Horseshoe Southern Indiana (now Caesars Southern Indiana). However, there were no viable options for the Lexington market to the south or east. A convenient gambling option opened in September 2015 with the addition of 902 HHR machines at Red Mile Gaming & Racing, located in the heart of Lexington.

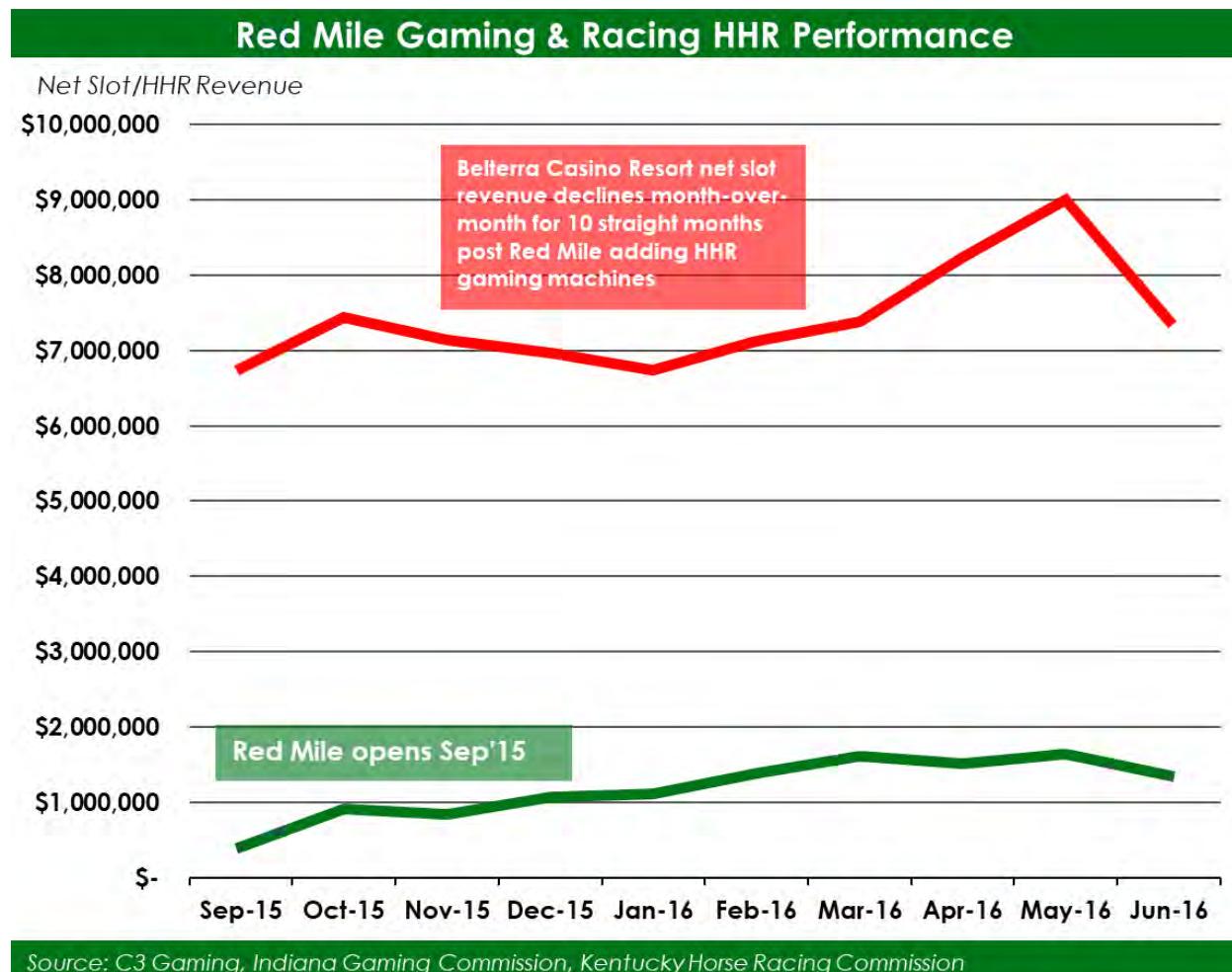
As a result of Red Mile's opening in the Lexington market, Belterra was likely impacted by -7%. The data shows that Belterra generated net slot revenue of \$79.6 million during the period from September 2014 through June 2015, or the 10-month period prior to Red Mile installing 902 HHRs in September 2015. In the subsequent 10-month period from September 2015 through June 2016, Belterra Casino Resort generated \$74.2 million in net slot revenue, a decline of \$5.4 million or a 7% negative impact. Similar to the case with Derby City opening in the Louisville market, gamers seeking a more convenient gaming option in the Lexington market played at Red Mile versus the Belterra Casino Resort in Indiana. This again, despite the higher relative attractiveness and significantly better amenity set of Belterra Casino Resort over Red Mile.

Belterra Casino Resort - Net Slot Revenue Impact					
Month	Year	Before Red Mile Open	After Red Mile Open	% Change	
Sep	2014/2015	\$ 6,888,965	\$ 6,771,149	-2%	
Oct	2014/2015	\$ 7,521,884	\$ 7,438,641	-1%	
Nov	2014/2015	\$ 7,318,179	\$ 7,146,356	-2%	
Dec	2014/2015	\$ 7,934,570	\$ 6,966,002	-12%	
Jan	2015/2016	\$ 8,052,035	\$ 6,745,501	-16%	
Feb	2015/2016	\$ 7,410,980	\$ 7,120,344	-4%	
Mar	2015/2016	\$ 8,917,833	\$ 7,387,200	-17%	
Apr	2015/2016	\$ 8,295,221	\$ 8,243,753	-1%	
May	2015/2016	\$ 8,942,702	\$ 9,005,376	1%	
Jun	2015/2016	\$ 8,343,228	\$ 7,404,512	-11%	
10-Month Total		\$ 79,625,597	\$ 74,228,834	-7%	

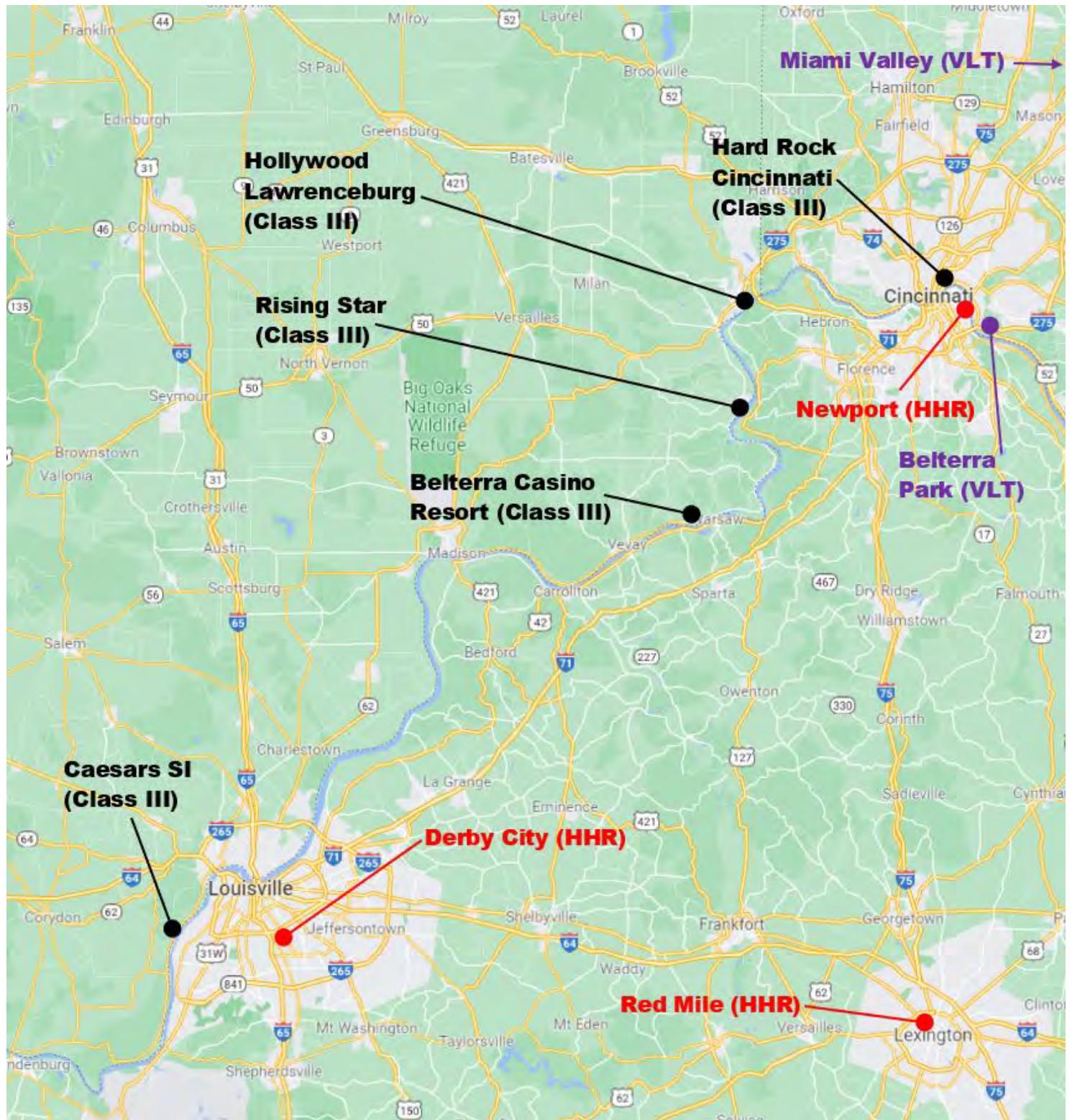
Source: C3 Gaming, Indiana Gaming Commission

RED MILE RAMP UP AND GROWTH

The following graph illustrates the net HHR revenue performance of Red Mile during its first ten months of operation through June 2016. Belterra Casino Resort was likely impacted due to Red Mile garnering a sizeable portion of the local Lexington market during this time period.



LOUISVILLE - LEXINGTON - CINCINNATI MAP



[The map above shows Kentucky HHR gaming properties in relation to the existing Class III casinos and VLT racinos in Indiana and Ohio]

WIN PER UNIT PER DAY COMPARISON

A commonly used, industry-wide performance metric to gauge and benchmark electronic gaming device performance is Win Per Unit Per Day ("WPUPD"). WPUPD is calculated by dividing EGD revenue by the number of devices and then by the number of days in the period being analyzed. For example, the table below illustrates WPUPD for Oak Grove, Tropicana Evansville, and Harrah's Metropolis. In June 2021, Oak Grove generated \$8.56 million in net HHR revenue divided by 1,079 units, divided by 30 days in the month yields a WPUPD of \$265.

OAK GROVE WPUPD

Oak Grove Racing, Gaming & Hotel is located in the southwestern corner of Kentucky and is part of CDI's collection of pari-mutuel gaming facilities and casinos. Oak Grove installed nearly 1,000 HHR units in September of 2020, and boasts a 158-room hotel, multiple dining options, an entertainment venue, and meeting space. Oak Grove competes with Tropicana Evansville, a 90-minute drive to the north, and Harrah's Metropolis, a 90-minute drive northwest of Oak Grove. Oak Grove is also situated 90-minutes from the greater Nashville market. As such, Oak Grove has been generating WPUPD that is comparable to Tropicana Evansville, a full scale Class III casino resort with 346 hotel rooms. Additionally, Oak Grove WPUPD outperformed Harrah's Metropolis (246 hotel rooms) WPUPD in May and June of 2021. The following table summarizes this comparative analysis.

Win Per Unit Comparison - HHRs and Class III Slots

		Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
HHR Units	Oak Grove	994	1,035	980	950	959	959	985	1,016	1,079
WPUPD	Oak Grove	\$161	\$154	\$167	\$220	\$194	\$286	\$302	\$295	\$265
Slot Units	Tropicana Evansville	714	716	721	738	738	740	726	958	1,004
WPUPD	Tropicana Evansville	\$373	\$301	\$298	\$349	\$292	\$485	\$493	\$394	\$349
Slot Units	Harrahs Metropolis	453	453	0	416	416	420	420	632	628
WPUPD	Harrahs Metropolis	\$236	\$102	\$0	\$138	\$221	\$352	\$384	\$228	\$234

Source: C3 Gaming, Kentucky Horse Racing Commission, Indiana Gaming Commission, Illinois Gaming Board

DERBY CITY WPUPD

The following table exhibits Derby City WPUPD and Caesars Southern Indiana WPUPD during the fourth quarter of 2018 and for the full calendar years of 2019 and 2020. In 2019, Derby City posted a virtually identical WPUPD to Caesars Southern Indiana, or \$283 and \$287, respectively. In 2020, with both facilities operating under the same pandemic restrictions, Derby City posted a comparable WPUPD of \$398 to Caesars's WPUPD of \$521. C3 Gaming notes that Derby City's WPUPD would be closer to or have outperformed Caesar's WPUPD in 2020 if Caesar's slot units were reduced by the same percentage as Derby City's HHR units.

Win Per Unit Comparison - HHRs and Class III Slots					
		Oct-18	Nov-18	Dec-18	Year
					2020
HHR Units	Derby City	900	900	900	966
WPUPD	Derby City	\$157	\$179	\$198	\$283
Slot Units	Caesars Southern Indiana	1,587	1,586	1,579	1,513
WPUPD	Caesars Southern Indiana	\$265	\$277	\$296	\$287
					\$521

Source: C3 Gaming, Kentucky Horse Racing Commission, Indiana Gaming Commission

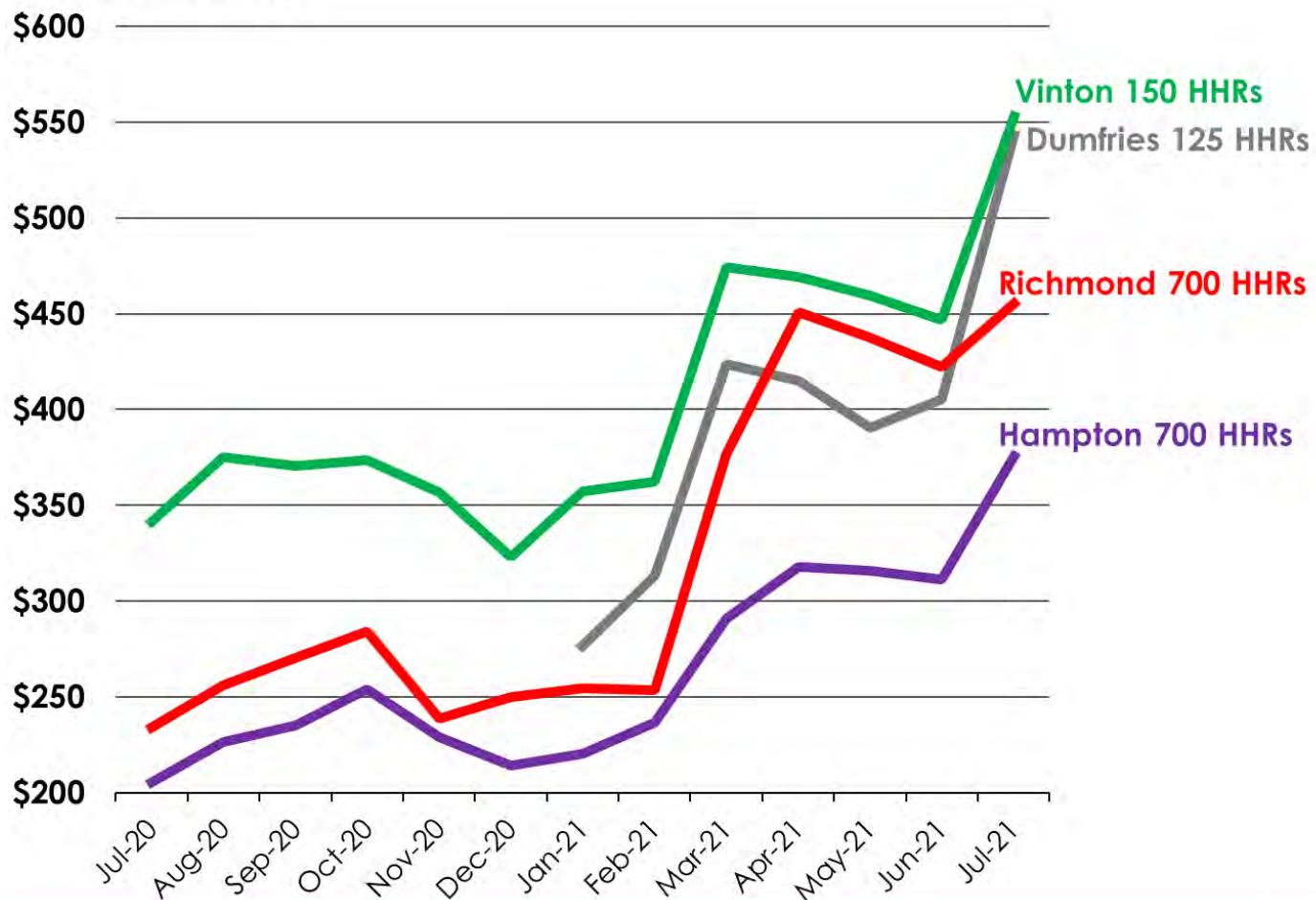
VIRGINIA HHR WPUPD

Beginning in April of 2019, Rosie's Gaming Emporium locations opened up across the state of Virginia. There are now six locations serving various markets including Richmond, Roanoke, Newport News, Norfolk/Chesapeake, and Dumfries. Each location features the Exacta gaming system. Since inception in April 2019 through July 2021, these HHR gaming machines have generated a total of \$359 million in gaming revenue statewide. The following graph shows the WPUPD at locations with varying sizes since reopening in July of 2021. The smaller location in Vinton and Dumfries have average over \$400 WPUPD, while the larger locations in Hampton and Richmond have averaged roughly \$290 WPUPD.



Virginia HHR WPUPD

Win Per Unit Per Day



Source: C3 Gaming, Virginia Racing Commission

The newest generation of HHRs have been operating in Kentucky, Wyoming, and Virginia and will soon be deployed at sixteen pari-mutuel facilities in New Hampshire. Where they have been deployed, HHR revenue performance has been impressive and competitive with Class III machines at casino hotel resorts as evident by their WPUPD metrics. One can expect the same to occur in Oregon.

6. APPENDICES

ABOUT C3 GAMING

Casino Consultants Consortium (C3 Gaming) is the most diverse network of consultants in the gaming and hospitality industry. The firm provides clients with the most appropriate team of consulting professionals to solve their business problems and meet their business needs. C3's network is comprised of independent casino consultants, architectural firms, market research providers, marketing and advertising firms, business intelligence/ data/ technology firms, and financial professionals with high levels of expertise in the casino and hospitality industry. C3 Gaming' core services include casino feasibility studies, expansion studies, operations analysis, marketing analysis, market research, table game integrity, marketing plan development and business plan development.

CONSULTING TEAM BIOGRAPHIES

ANDREW KLEBANOW

With nearly 40 years' experience in the casino industry, Andrew Klebanow has spent the past 20 years as a gaming consultant. He has completed assignments in jurisdictions throughout the United States as well as in fifteen foreign countries. He has conducted assignments for over fifty Indian tribes. Over the course of his career he has visited over 1,000 casino properties.

Andrew Klebanow founded Klebanow Consulting in 2001 and co-founded Gaming Market Advisors in 2005. Mr. Klebanow sold his ownership interest in what is now known as Global Market Advisors in late 2019.

Prior to his career as a gaming consultant, Mr. Klebanow served in a number of executive positions in the gaming industry including Vice President of Marketing at Sam's Town Hotel and Gambling Hall, Vice President and General Manager of the Santa Fe Hotel and Casino in Las Vegas, and Director of Marketing at Alliance Gaming Corporation. He is a periodic lecturer at Cornell University's School of Hotel Administration, and has taught classes at the University of Nevada Reno's School of Continuing Education.

Andrew has authored over 150 articles in Indian Gaming Magazine, Global Gaming Business Magazine, Public Gaming International, Inside Asian Gaming, CDC Gaming Reports' Focus on Asia, and other trade publications. He also contributed academic papers to the Cornell University Hotel and Restaurant Quarterly, the UNLV Hospitality Journal, University of Houston's Conrad School of Hotel Management, and the Asia Pacific Association for Gambling Studies and Lottery Research Center of China at Beijing Normal University.

Andrew earned a Bachelor of Arts degree at New York University (1975) and a Master of Professional Studies from Cornell University's School of Hotel Administration (1991).



LAWRENCE SHEN, CFA

Lawrence Shen, CFA is a co-founder of C3 Gaming, and also the Founder and Principal of Advantage Partners Consulting (APC).

Lawrence has been a PhD researcher, a formidable poker and blackjack player, and an executive in the gaming industry. Before founding C3 and APC, Lawrence was the Senior Manager of Strategic Finance & Business Analysis at Caesars Entertainment where he was in charge of conducting market sizing of every new development opportunity worldwide, and forecasting negative impacts to every affected property due to new competitors or legislative changes.

Lawrence spearheaded multiple development projects and licensing bids in North America, Asia, and Europe with demand sizing, build optimization, site selection, and financial forecasts, including Caesars Entertainment's successful pursuit of the first gaming license in the state of Virginia.

Lawrence developed over thirty-five state-of-the-art gravity models to assist in the acquisition and divestiture of regional casinos and provided competitive impact forecasts to operators due to new supply or legislative changes. Clients included chain casino operators, VLT route operators, Native American tribes, racetracks, hotel developers, and prestigious private equity funds.

He provided consultation services to over ten casino and racetrack operators in negotiations with regulators on legislative changes, license extensions, and integrated casino resort biddings. Past projects include cost-benefit analyses of riverboat to land conversions and proposing mitigating measures to the Indiana Gaming Control Board in response to new openings.

Lawrence conducted deep-dive research projects requiring advanced analytical skills, including optimizing shuttle bus routes and schedules, identifying the most valuable patrons for junket programs, and quantifying the revenue lift with different designs of reward clubs.

In finance, Lawrence managed the enterprise long-term planning cash flow model, which is used to perform scenario analyses for operating projections, acquisitions and divestitures, and capital structural changes at the requests of the C-Suite and the Board of Directors. Lawrence worked closely with Caesars Entertainment Accounting, Treasury, and Investor Relations on quarterly earnings and cash flow alignment, EBITDA adjustments, cost savings calculation, rent and lease monitoring, and tracking of debt covenant ratios. In M&A, Lawrence participated in the sale of the Rio Hotel and Casino and the acquisition of Centaur Holdings. Lawrence also led the attempted acquisition of multiple VLT route operators in Illinois, and multiple casinos in Louisiana, Rhode Island, and Pennsylvania.



Lawrence is a Chartered Financial Analyst (CFA), and earned a Master of Science Degree from Duke University while pursuing a PhD Degree in Engineering.

GERARD PARISI

Gerard Parisi is a co-founder and Principal at C3 Gaming. Mr. Parisi's consulting experience spans nearly a decade in the gaming and hospitality industry. His experience and knowledge includes nearly all markets in the United States and Canada as well as Asia. Mr. Parisi has visited and evaluated over 200 casinos and resorts globally while completing over 60 robust forecasting models, various economic impact studies, and numerous special projects for clients.

Prior to entering the gaming and hospitality consulting arena, Mr. Parisi succeeded in the wealth management and financial advisory practices at KeyBank and UBS Financial Services while holding multiple NASD/FINRA licenses. Gerard then transitioned to the equity research community as a financial analyst covering industrial machinery and technology companies.

Gerard's appreciation for the hospitality industry stems from performing several functions early on in both the golf club and food & beverage industries. This ground-up and wide-ranging experience allowed Mr. Parisi to gain first-hand knowledge into how important the guest experience is to achieving revenue goals.

Mr. Parisi is a 2004 graduate of The Max M. Fisher College of Business at Ohio State University, where he earned his B.S.B.A. in finance and minor in accounting.

