

170 Sawyer Road New Gloucester, ME 04260 Phone: 207.926.1039

Email: stsinc@gwi.net

Evaluation of a Proposed Contract Extension with Rhode Island's Current Exclusive Lottery Vendor

Prepared by: Christiansen Capital Advisors, LLC Prepared for: Rhode Island General Assembly

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EXECUTIVE SUMMARY

The Rhode Island General Assembly ("RIGA") engaged Christiansen Capital Advisors, LLC. ("CCA") to evaluate a proposed contract extension with Rhode Island's current lottery vendor to obtain expert services to better inform the public discussion of this proposed lottery contract extension by examining how its terms compare with similarly situated lotteries in other jurisdictions. CCA is pleased to submit our findings in the following report.

The RIGA identified the following key areas of research for this project:

Scope of Work Requested

- Comparability of proposed IGT contract with market rates and practices
 - Lottery Central Communications system and related support services
 - Estimate value of services rendered not typical of other contracts to ensure comparability
 - o VLT Central Communications system and related support services
 - Estimate value of services rendered not typical of other contracts to ensure comparability
 - o VLT Provider
 - *Rates and replacement requirements*
 - Premium games
 - Efficiency
 - Competition among VLT providers
 - Instant ticket services
 - o Contract length, changing technology and markets
- Related Considerations
 - Unique role of state in control over casino operations
 - Qualifications of potential other vendors
 - o Timing and implementation of system vendor changeovers
 - Role of VLT offerings in overall revenue performance and impact of competition for floor space

To complete this project, CCA developed a subset of lotteries in the United States that are similar in size and structure to Rhode Island. Lotteries used for comparison in this report were chosen based on such factors as geography, population, and lottery games provided. Within that subset, CCA has performed an analysis of the lottery contracts that we could obtain, and the services provided therein as well the

annual reports of comparable lotteries to somewhat rationalize and quantitatively compare the terms of these contracts with what is proposed for Rhode Island. In determining our comparable lotteries, we have focused on those lotteries with comparable populations, greater than \$100 million but less \$300 million in lottery sales, and less than 3,000 retailers. Within this list we have excluded large western states with very large geographic areas and low population densities such as the Dakotas, Montana, New Mexico, etc...on the basis that they are very different from the small relatively dense state of Rhode Island, and that materially changes the economics of maintaining a statewide interconnected network.

Comparable On-line Lotteries

Providers of central systems and draw games services are typically compensated by a percentage of lottery sales. Exhibit ES.1 presents the compensation structure for draw lottery services for lotteries deemed the most comparable to Rhode Island.

Exhibit ES.1: Fee Structure for Comparable Central Control Systems

Arkansas	INTRALOT	2.165% of instant & draw sales
Connecticut	Scientific Games	0.84% of all sales; 1.57% (keno)
Delaware	Scientific Games	5.371% (online)
D.C.	INTRALOT	2.5999% of system sales
Iowa	Scientific Games	2.304% of system sales
Kansas	Scientific Games	\$1.2M + 5.2463% (GGR)
Maine	Scientific Games	3.5% of online sales
Oklahoma	Scientific Games	3.99% of all sales
Nebraska	IGT	4.5% (system sales)
N. Hampshire	INTRALOT	1.435 % of system sales
Rhode Island	IGT	5% of total sales
Vermont	INTRALOT	2.9763% of total net sales
West Virginia	IGT	4.2822% of system sales

Source: LaFleur's 2019 World Lottery Almanac, Lottery Annual Reports

Providers of instant ticket management systems and scratch tickets are typically compensated by a percentage of lottery sales for the management systems and, sometimes, for instant ticket costs. Exhibit ES.2 presents the compensation structure for draw lottery services for lotteries comparable to Rhode Island.

¹ A notable exception is neighboring Massachusetts, arguably one of the most successful lotteries in the world, that purchased and/or leases the entire system from lottery supplier GTECH outright. It occasionally contracts with GTECH for system upgrades.

Exhibit ES.2: Fee Structure for Instant Tickets

State	System Provider	Fee
Arkansas	Scientific Games (CSP)	1.3% + 4.5% above\$360M
		plus ticket costs
Connecticut	Scientific Games	~1% plus ticket costs
Delaware	Scientific Games	~5.6%
D.C.	Intralot	~6.4%
Iowa	Scientific Games	2.3% of system sales plus
		ticket ITVM costs
Kansas	Pollard/IGT	~4.4%
Maine	Scientific Games	3.50%
Nebraska	IGT	8.07%
Oklahoma	Scientific Games	3.99% plus 1.15% of instant
		activations minus returns
New Hampshire	Intralot	~2.8%
Vermont	Intralot	~5%
West Virginia	IGT	4.2822% of sales

[~]Indicates estimates based on lottery financial statements

Source: LaFleur's 2019 World Lottery Almanac, Lottery Annual Reports

There are a limited number of jurisdictions that require a statewide Central Monitoring System for gaming devices (and many are not that comparable to Rhode Island), Exhibit 4.2 presents the contractual compensation structure for those states.

^{*}Mulitple providers of Instant Tickets

Exhibit ES.3: Fee Structure for Statewide Central Monitoring Systems

State	Vendor # of Locations		Fees
Maine	Scientific Games	2	0.88% of GGR
			1.2 % up to \$80 million, 0.8%
			between \$80 and \$160 million,
Kansas	IGT	4	and 0.3% \$160 million.
Delaware		3	1% of GGR
Maryland	IGT	6	N/A*
			Flat Fee of \$6.42 million per
Pennsylvania (up to 2015)	IGT	12	year
			\$1,631,580 per machine
Pennsylvania (after 2015)	IGT	12+	connected
New York	Everi/Multimeida	10	1% of GGR
			Flat fee of \$3.26 million per
Ohio	Intralot	7	year, plus \$449,586 per facility
Illinois	Scientific Games		0.8513% of NTI
Oregon	IGT	~2,500	N/A
South Dakota	Scientific Games	1,246	N/A
West Virginia	IGT	6,311	~2%

Sources: LaFleur's 2019 World Lottery Almanac, Lottery Annual Reports, Vendor Contracts

According to the documents we have reviewed the new Master Contract with IGT will include provision that require that:

- Minimum of 25% of the VLTs at Lincoln will be replaced by 12/31/20
- 6% of VLTs replaced annually starting in 2021
- 5% of a vendor's VLTs must be premium or royalty games
- All new VLTs at Lincoln and Tiverton will have bonusing
- All payments to IGT will be net of 20% promotion points
- IGT's VLT share will still be subject to efficiency testing, with "may" changed to "shall"
- Low-performing VLTs (earning less than 150% of floor average) subject to review and replacement by Lottery
- IGT shall perform a game kit conversion on a minimum of 2% of their total VLT units annually.
- IGT will install a new online lottery solution on or before July 1, 2020, with complete online lottery solution replacement on or before July 1, 2031. This will include a full range of game types and age, identify and location verification function and iLottery to be installed on or before October 1, 2021, with replacement in place on or before April 1, 2033.

^{*} CCA filed a FOIA request for all Maryland contracts. The IGT CMS contract had not been requested before (unlike the other contracts) and had to be redacted. As a consequence, we were unable to obtain this document before our deadline.

- IGT will assume all responsibilities for lottery sales personnel (the Director has indicated this saves State around \$1.25 million a year) and that the 12 lottery sales representatives would be guaranteed employment and same compensation by IGT for first year.
- IGT will replace the existing Internal Control System (ICS) for the online lottery system with a new ICS on or before July 1, 2020.
- IGT will pay the State \$12.5 million in 2023 and 2024 for a total of \$25 million

Furthermore, the Rhode Island Lottery Director informed CCA that in addition to a new online system, the Rhode Island Lottery will be able to obtain 2 additional modules in first 8 years of the contract. A full system upgrade ten years in, and another two modules after this upgrade.

For these services, IGT will be compensated as follows:

Traditional Lottery System

Total Lottery Sales	Percent
0-\$275M	5%
\$275M-\$400M	4%
Over \$400M	5%

VLT Lease Rates

Total Average Daily Net Income	Percent
0-\$325 per day	7%
\$325-\$500 per day	1%
Over \$500 per day	7%

VLT Central System

Total NTI	Percent
0-\$500M	2.5%
500M-\$1B	1%
Over \$1B	2.5%

Technical Evaluation

In terms of the services provided this is a strong technical proposal. The mandated acceleration of the VLT replacement cycle is a marked improvement over the previous contract, although as we have noted in this report the recent lapse in the replacement cycle has been due to the extenuating circumstances of adding table games and relocating a casino. Furthermore, as we have also noted in this report, the data indicate that Rhode Island casinos have performed very well despite new competitors entering the market. A mandated replacement cycle of 6% of the machines per annum and 2% of machine conversions will place Rhode Island casinos within industry norms for annual replacements and conversions.

Price Evaluation

Before comparing the pricing in the contract extension, it is necessary to adjust for the \$25 million that IGT will pay upfront in the first two years, and the cost savings provided by IGT taking over the sales

functions for the lottery. Based upon FY2019 traditional lottery sales of \$263.3 million the \$1.25 million per annum the lottery will save equates to a roughly a half a percentage point reduction in fee for traditional lottery sales, effectively reducing it to 4.5%. Assuming lottery sales remain relatively stable (as we expect they will) the \$25 million upfront payment when extended over the twenty years of the contract also equate to almost a half percentage point reduction, for an estimated total of slightly more than 4% of traditional lottery sales.

Traditional Lottery System

Based upon our analysis of pricing for traditional lottery services in other states, we believe that in a competitive bidding scenario Rhode Island could expect to pay somewhere between 3-4% of lottery sales (probably closer to 3% due to Rhode Island's small size), but that would likely not include the lottery sales force which we have established is worth about a half of percentage point in Rhode Island. Thus, for traditional lottery services, the pricing of this contract extension is toward the higher end of what we would expect from a competitive bid, but less than 1% (or approximately \$2.6 million per year) higher.

VLT CMS

Based upon our analysis of comparable jurisdictions, Rhode Island is paying considerably more than its peers for a VLT Central Monitoring System only covering two facilities. We believe, based on our accounting of other CMS fees, that if that system were put out to bid Rhode Island could expect to pay about 1% of gross gaming revenues, a substantial reduction from the 2.5% contemplated in the contract extension. Based upon FY2019 NTI of \$522.7 million, that 1.5% is over \$7 million a year.

VLT Lease Rates

As described in the body of this report, the VLT lease rates contemplated within the proposed contract extension are similar to rates paid by other jurisdictions that choose to lease slot machines, although Delaware, for example, is charged less for older machines. Thus, the lease rate contemplated in the contract is a little on the high side but within industry norms for leased machines.

Further Considerations

Instant Tickets

From the analysis described in this report, the data indicate that by only providing instant tickets from one supplier Rhode Island is not only leaving potential instant sales on the table, that spending is being exported to Massachusetts.

Gambling Policy and the VLT model

When the original Master Contract was signed 17 years ago, Rhode Island gaming facilities were two small (2,654 devices that generated \$314.7 million in gross gaming revenue) VLT-only facilities housed in ageing pari-mutuel facilities. In 2020 these casinos have undergone substantial capital investment² and added table games (that are not and cannot be hooked to central systems) and sports betting. In other

² Including a brand new facility in Tiverton.

words, they have evolved from VLT-only facilities to look and operate very differently today. To the average patron these are casinos in all but name.

The Rhode Island VLT model developed in the 1990s and *de facto* continued with the Master Contract of 2003 may have made sense at the time, but it is important to remember that, in 2020, this is more than just a contract extension. By entering into this contract, the RIGA would also be locking in *gambling policy* for the next 23 years. Now that Rhode Island facilities have evolved to become casinos, before deciding to enter into a new contract that will lock in a **lottery model** for an additional twenty years, the RIGA should consider whether a **casino model** is more appropriate and whether these services are still necessary and/or desirable.

VLT CMS

Absent statutory provisions, which, of course, can be changed by the RIGA with the approval of the Governor: does Rhode Island really need a Central Management System for VLTs? As discussed within this report, most gaming devices in the United States operate without a statewide monitoring and control system. Effective regulation is achieved by unfettered access to privately owned management systems by regulators. For slot route operations like South Dakota, West Virginia, Illinois, etc...with thousands of outlets paying wins in cash, they are a necessity. But in a state with two casinos and only one operator the security needs and cost to regulate a private CMS are significantly less.

We understand this would likely necessitate a change in Rhode Island law, but if the State of Rhode Island is considering legislation to enter into a twenty year no bid Master Contract. It would seem prudent to explore whether all the services included in that Master Contract are truly necessary in 2020, and worth the expense to Rhode Island taxpayers.

Leasing 100% of Machines

As described in this report, the vast majority of slot machines in North America are purchased, rather than leased at a percentage of gaming revenue.

The math behind this is simple. In FY2019, Rhode Island casinos \$272 and \$277 per machine per day at Tiverton and Twin River. That is approximately \$100,000 per machine per year. Most slot machines or VLTs cost between \$15,000 and \$25,000. Most machines have at least a five-year useful life, and some remain on slot floors for 10 years or more. Thus, it is easy to see why greater than 85% of owners (90% of casino owners) of gaming devices chose to buy rather than lease.

Furthermore, as we have also described within this report, the State of Maryland initially adopted a model similar to Rhode Island (although they still opted to purchase rather than lease many of the machines), but after a few years they decided to get out of the slot lease/owning business entirely.

Finally, as also described in this report, CCA has never recommended to any of the lottery's we have served that a twenty-year contract is a good idea. A ten-year initial contract term, with optional extensions, has been a standard recommendation from CCA for the last 15 years. The primary reasoning

behind a ten-year term is mitigate the impact of a lottery getting caught between technology changes. While it is true that changes in lottery technology tend to be more evolutionary than revolutionary, and many existing systems are approaching 20 with only minor upgrades, that is really about the limit of their useful lives. A ten-year term gives the lottery flexibility to survey the technology of the times and then determine whether a system upgrade is necessary.

Some might suggest that they have essentially the same thing in the new Master Contract by requiring that IGT upgrade the system in ten years' time. Maybe, but you are still locked into one supplier. IGT/GTech has been an industry leader in lottery technology for over 30 years, and we would agree that that is not *likely* to change over the next ten. However, it is still *possible* that IGT could fall behind in new payment systems or other technologies that the Rhode Island Lottery may wish to adopt in the future. It may be a relatively small risk, but one that could have significant implications for Rhode Island and Rhode Island taxpayers.

1. TRADITIONAL LOTTERY COMPARABLES

CCA has developed a subset of online lotteries in the United States that are similar in size and structure to Rhode Island. Lotteries used for comparison in this report were chosen based on such factors as geography, population, and lottery games provided. Within that subset, CCA has performed an analysis of the online lottery contracts that we could obtain, and the services provided therein to somewhat rationalize and quantitatively compare the terms of these contracts with what is proposed for Rhode Island. Development of a peer group is necessary because of economies of scale enjoyed by large lotteries like Florida, New York and California, as well as contracts that are truly non-comparable in anyway, such as the Massachusetts Lottery.

In determining our comparable lotteries, we have focused on those lotteries with comparable populations, greater than \$100 million but less \$300 million in lottery sales, and less than 3,000 retailers.

With the important the exception that we have included all New England States in our analysis on the basis that these lotteries compete from many of the same customers as the Rhode Island Lottery. Exhibit 1.1 presents the list of lotteries that meet this criteria.

Within this list we have excluded large western states with very large geographic areas and low population densities such as the Dakotas, Montana, New Mexico, etc...on the basis that they are very different from the small relatively dense state of Rhode Island, and that materially changes the economics of maintaining a statewide interconnected network.

Exhibit 1.1: Small State Lottery Comparables

	Adult Pop.		Total
	(18+)		Retailers
State Lottery	(in millions)	State Lottery	
Wyoming	0.58	D.C.	408
Vermont	0.63	North Dakota	447
D.C.	0.70	Wyoming	460
North Dakota	0.76	Vermont	623
South Dakota	0.88	South Dakota	649
Delaware	0.97	Delaware	676
Rhode Island	1.06	Montana	954
Montana	1.06	New Mexico	1,015
Maine	1.34	Idaho	1,181
New Hampshire	1.36	Rhode Island	1,181
Idaho	1.75	Nebraska	1,209
West Virginia	1.81	Maine	1,229
Nebraska	1.93	N. Hampshire	1,445
New Mexico	2.10	West Virginia	1,473
Kansas	2.91	Kansas	1,709
Arkansas	3.01	Oklahoma	1,824
Iowa	3.16	Arkansas	1,926
Connecticut	3.57	Louisiana	2,889
Oklahoma	3.94	Connecticut	2,899

Source: LaFleur's 2019 World Lottery Almanac

2. COMPARISON OF PROPOSED IGT CENTRAL COMMUNICATIONS SYSTEM CONTRACT WITH MARKET RATES AND PRACTICES

A lottery Central Control System (CCS) is a central system under the control of the State where accounting data, security exception reports, and software verification can be initiated. It includes the ability to manually or automatically disable devices based on automatic triggers or upon an event. The CCS handles all gaming and validation activity for the lottery. This system communicates with all the lottery terminals in retail locations via satellite and cellular communications networks.

Additional features provided by Central Control Systems include daily reports showing any imbalances to daily reports detailing any broken/disabled/non-reporting terminals and produces log files showing all configuration changes or other system user activity. The CCS also provides data warehousing and custom reporting features to the lottery, including the ability to generate all types of relevant summary views, sales analytics, and games and sales trends.

In addition to the central system, lottery suppliers provide terminals to lottery retailers that enable and promote the sale of all lottery products,³ and those sales are registered in the central system. The system also reports all transactions for prizes paid and provides reports on all retailer activity including sales, prize payments, and net amounts due to the lottery weekly, which are then electronically swept from retailers' bank accounts. Central system providers also typically provide the equipment, (signage, monitors and so forth) software, personnel and other services to develop and implement the customized marketing and promotional programs.

There are often only two primary differences in these types of lottery contracts: one is whether and how much equipment is leased from a vendor and whether Lottery Sales Representatives (LSRs) are employees of the lottery or the system provider. Currently in Rhode Island LSRs are employed by the lottery, although we understand the new contract will move those positions over to IGT (for a cost savings to the lottery of approximately \$1.2 million per year).⁴

In addition to the necessary hardware and software comprising the online system, central system suppliers also provide the bulk of the technical personnel necessary to maintain and support the system's interoperability with retailer terminals, related peripherals and instant ticket vending machines. Instant ticket vending machines are used by lotteries to dispense instant winner lottery tickets primarily in retail locations such as supermarkets and convenience stores. The machines dispense instant lottery tickets without the assistance of an employee of the lottery, instant ticket retailer or agent thereby permitting the retailer or agent to sell tickets without disrupting the normal duties of its employees.

In many states (such as Rhode Island) the central system supplier also maintains an inventory control system and provides reporting for instant tickets activity from warehouse to retailer to validation of winning tickets. Unlike Rhode Island, however, where one company manages instant ticket validation,

³ These products include lottery terminals, instant ticket vending machines, Keno monitors, and ticket checkers.

⁴ Senate Bill 1031. "An Act Enabling the State Lottery Division of the Department of Revenue to Contract with IGT Global Solutions Corporation"

delivery and warehousing, many lotteries purchase instant tickets from multiple suppliers including IGT, Scientific Games, or Pollard Banknote.

In some states, the central system and terminals for draw games are bid separately from the instant ticket services, and in those states, some award the inventory control, warehousing, fulfillment, etc... to the instant ticket providers. While some other states contract for the purchase of instant tickets only and these functions are the responsibility of the central system provider.

DRAW LOTTERY/CENTRAL SYSTEM COMPARABLES

Within that broad framework described above it is difficult to harmonize on-line system contracts from jurisdiction to jurisdiction in such a way that apples to apples to comparisons between them can be drawn. While Rhode Island may be the only state to have a lottery contract tied to an economic development deal, it is not the only state with a unique lottery contract. To take two extreme examples; the Texas Lottery is almost entirely outsourced to service providers, including lottery sales reps, while the Massachusetts Lottery buys its central system outright and does most of these business functions inhouse. Most other states fall somewhere in between.

Comparable On-line Lotteries

Providers of central systems and draw games services are typically compensated by a percentage of lottery sales.⁵ Exhibit 2.1 presents the compensation structure for draw lottery services for lotteries most comparable to Rhode Island.

Exhibit 2.1: Fee Structure for Comparable Central Control Systems

Arkansas	INTRALOT	2.165% of instant & draw sales
Connecticut	Scientific Games	0.84% of all sales; 1.57% (keno)
Delaware	Scientific Games	5.371% (online)
D.C.	INTRALOT	2.5999% of system sales
Iowa	Scientific Games	2.304% of system sales
Kansas	Scientific Games	\$1.2M + 5.2463% (GGR)
Maine	Scientific Games	3.5% of online sales
Oklahoma	Scientific Games	3.99% of all sales
Nebraska	IGT	4.5% (system sales)
N. Hampshire	INTRALOT	1.435 % of system sales
Rhode Island	IGT	5% of total sales
Vermont	INTRALOT	2.9763% of total net sales
West Virginia	IGT	4.2822% of system sales

Source: LaFleur's 2019 World Lottery Almanac, Lottery Annual Reports

⁵ A notable exception is neighboring Massachusetts, arguably one of the most successful lotteries in the world, that purchased and/or leases the entire system from lottery supplier GTECH outright. It occasionally contracts with GTECH for system upgrades.

3. COMPARISON OF PROPOSED INSTANT TICKET SERVICES WITH MARKET RATES AND PRACTICES

Instant ticket services consist of two different types of services: the production and printing of the instant tickets themselves; and the delivery, storage, fulfillment, and accounting system that are necessary to effectively manage the instant ticket business.

Instant tickets range in complexity. The simplest are scratch cards that a player scratches off three (or more) areas hiding numbers or symbols. If all the items revealed are the same, a prize has been won. There are more complicated instant tickets that have several different ways to win on one card and bonuses. Often instant tickets are adaptations of popular games such as blackjack, poker or Monopoly or are branded with intellectual properties such as Harley Davidson, Major League Baseball, NASCAR, the National Hockey League, Marvel Comics and FIFA World Cup.

Many companies print instant tickets, but only three--Intralot, IGT, and Scientific Games provide the management services which include fulfillment, marketing, vending machine options, billing and financial reporting, account management, game development ticket characteristics and security and testing protocols. The following list provides a good overview of the types of services provided in an instant game contract.

- Account Management Services
- Instant Ticket Marketing Services
- Product Research & Development
- Telemarketing, Ticket Ordering and Inventory Monitoring System
- Inventory Management
- Instant Game Design and Printing
- Storage and Distribution of Instant Tickets
- Ticket Order Fulfillment
- Instant Ticket Distribution
- Instant Ticket Collection and Return Process
- Instant Ticket Security
- Instant Ticket Printing and Production Game Specifications
- Returned Tickets
- Game Close Audit
- Instant Ticket Destruction
- Retailer and Employee Training
- Instant Ticket Dispensers & Signage
- Instant Ticket Management System Software Programming Support

Instant ticket service for US lotteries typically fall into two broad models. In the first model, the instant ticket management system and instant ticket services are bid together and provided by the same vendor as the online contract (such as in Rhode Island). Within this category, sometimes the vendor is the only provider of instant tickets (also as in Rhode Island), but more often while the instant ticket management system is run by the online vendor, the ticket themselves are purchased from multiple suppliers. The second model is one in which the online and instant lottery management systems are bid separately. As in the first model sometimes the instant ticket vendor is the sole supplier of instant tickets, but more often instant tickets are purchased from multiple suppliers.

Providers of instant ticket management systems and scratch tickets are typically compensated by a percentage of lottery sales for the management systems and, sometimes, for instant ticket costs. Exhibit 3.1 presents the compensation structure for draw lottery services for lotteries comparable to Rhode Island.

Exhibit 3.1: Fee Structure for Instant Tickets

State	System Provider	Fee
Arkansas	Scientific Games (CSP)	1.3% + 4.5% above\$360M
		plus ticket costs
Connecticut	Scientific Games	~1% plus ticket costs
Delaware	Scientific Games	~5.6%
D.C.	Intralot	~6.4%
Iowa	Scientific Games	2.3% of system sales plus
		ticket ITVM costs
Kansas	Pollard/IGT	~4.4%
Maine	Scientific Games	3.50%
Nebraska	IGT	8.07%
Oklahoma	Scientific Games	3.99% plus 1.15% of instant
		activations minus returns
New Hampshire	Intralot	~2.8%
Vermont	Intralot	~5%
West Virginia	IGT	4.2822% of sales

[~]Indicates estimates based on lottery financial statements

Source: LaFleur's 2019 World Lottery Almanac, Lottery Annual Reports

^{*}Mulitple providers of Instant Tickets

4. COMPARISON OF PROPOSED VLT CENTRAL COMMUNICATIONS SYSTEM AND VLT WITH MARKET RATES AND PRACTICES

Much like the Central Control System for online lotteries, an independent Central Monitoring System ("CMS") for VLTs provides real-time monitoring. This provides compliance of the approved and certified software installed in the VLTs and ensures the pay tables are configured to Lottery requirements. The financial data provided by the CMS allows real-time audit process to compare to VLT system reports. This streamlines the audit process and minimizes the need for manual audits that are time consuming, costly and error prone. The CMS also supplies data to the Lottery of operational issues regarding the VLTs such as memory loss, bill jams, etc. These systems meter information in real time from every machine in the state including coin-in, coin-out, credits played, credits won, jackpots, hand pays, bonuses, # of games played, # of games won, # of times doors were accessed, hopper or printer errors, communications or internal game failures, EPROM signature and internal RAM memory errors, and the ability to set specific security levels and actions. They provide an audit trail of all financial reconciliations and can produce reports by venue, manufacturer, game type, or individual machines. This internal reconciliation provides reports and audit tools to identify, track, and resolve meter imbalances or player financial disputes. Furthermore, the CMS validates all gaming machines connected to the system. No machines can be played prior to enrollment and integrity verification checks. Checks are conducted automatically or anytime the integrity of a machine may be in question.

Machine access rights are controlled by the lottery and system access and functions are restricted and controlled. Security breaches, cheating or significant event notifications are controlled by the lottery with automatic real time system response, and the ability to track and monitor both routine repair and maintenance operations.

Like instant ticket systems, while there is often only one supplier of a CMS, there are many vendors that supply VLTs. In fact, New York's central system provider⁶ is prohibited from selling machines.

It should be recognized, however, that the majority of slot machines in the United States, including those operated in Nevada, New Jersey, Iowa, Mississippi, Illinois casinos, Indiana, Michigan and many other states are not connected to a state operated central control computer system. Exhibit 4.1 presents the number of gaming devices in the United States by class of gaming system. Tribal casinos are not connected to central systems and most commercial casinos, excepting casinos in Maine, Kansas and Pennsylvania, for example are not as well. While we cannot produce an exact count of machines connected to central systems from the data available to us, most gaming devices in the United States are not connected to a statewide CMS.

⁶ Which as we describe further in this report, is a Central Determination System. This system has all the available functions of the CMS system, but has the distinction that wins and losses and not determined at the machine level, but rather within the central system.

Exhibit 4.1: Gaming Devices by Class, 2018

	# of Machines	% of Total
U.S. Commerical Casinos	417,452	46.8%
Tribal Class III	305,453	34.2%
Tribal Class II	61,788	6.9%
VLTS	28,728	3.2%
VGTs	78,930	8.8%
Total	892,351	100.0%

Source: Association of Gaming Equipment Manufacturers, 2018 Census

In the majority of states, casinos maintain their own slot management system and the role of the state is regulatory. Administrative level access to these central systems are provided to regulators 24/7 and can be done onsite or remotely. These internal controls with unfettered regulator access can very effectively substitute for the functionality of a statewide central control systems.

The central system model for VLTs was primarily developed due to statutory requirements and/or the familiarity with the model by state lottery's embarking into a line of business they had little knowledge of, but their vendors were very experienced in. As might be expected, they relied heavily on those supplier's expertise. And certainly, for gaming machine route operations, where a handful of onsite gaming devices are located in thousands of bars, restaurants, and truck stops a CMS not only makes sense, but is necessary to protect the integrity and security of the system.

This is much less true in a casino environment where thousands of machines are available in a limited number of locations, such as 2, in Rhode Island. This has created a situation where casinos in states like Delaware, Maryland, Kansas and other similarly situated states have a second redundant system, at a cost of millions of dollars to the taxpayer very similar to the slot accounting systems the casinos already have. The model of casino operators using their own state certified and mandated system (with specifications set by the state) has been proven to be a sufficient level of level of oversight in many jurisdictions.

There are a limited number of jurisdictions that require a statewide CMS, Exhibit 4.2 presents the contractual compensation structure for those states.

Exhibit 4.2: Fee Structure for Statewide Central Monitoring Systems

State	Vendor # of Locations		Fees
Maine	Scientific Games	2	0.88% of GGR
			1.2 % up to \$80 million, 0.8%
			between \$80 and \$160 million,
Kansas	IGT	4	and 0.3% \$160 million.
Delaware		3	1% of GGR
Maryland	IGT	6	N/A*
			Flat Fee of \$6.42 million per
Pennsylvania (up to 2015)	IGT	12	year
			\$1,631,580 per machine
Pennsylvania (after 2015)	IGT	12+	connected
New York	Everi/Multimeida	10	1% of GGR
			Flat fee of \$3.26 million per
Ohio	Intralot	7	year, plus \$449,586 per facility
Illinois	Scientific Games		0.8513% of NTI
Oregon	IGT	~2,500	N/A
South Dakota	Scientific Games	1,246	N/A
West Virginia	IGT	6,311	~2%

Sources: LaFleur's 2019 World Lottery Almanac, Lottery Annual Reports, Vendor Contracts

^{*} CCA filed a FOIA request for all Maryland contracts. The IGT CMS contract had not been requested before (unlike the other contracts) and had to be redacted. As a consequence, we were unable to obtain this document before our deadline.

5. VLT STATES CLOSEST COMPARISONS

In this section, CCA reviews the subset of VLT jurisdictions in the United States that are most similar in size and structure to Rhode Island. Lotteries used in this comparison were chosen based on such factors as VLT revenue, population, number of VLT agents or casinos, and limiting statutory provisions. Within that subset, CCA has analyzed the VLT contracts that we could obtain, operating structure, services provided, and annual financial reports.

Delaware

In 1994 the Delaware General Assembly enacted legislation legalizing video lottery machines at racetracks with pari-mutual betting. These included Delaware Park, Dover Downs, and Harrington Raceway. From VLT-only facilities they have evolved to conduct video lottery, sports wagering, table game and internet gaming operations as one of three "Licensed Agents" under the Delaware State Lottery Code. Licensing, administration and control of gaming operations in Delaware is under the Delaware State Lottery Office and Delaware's Department of Safety and Homeland Security, Division of Gaming Enforcement. The operating model of Delaware VLTs and CMS is the most similar to the current operating model in Rhode Island. The Delaware Lottery owns or leases the VLTs and central system but does not direct day to day operations as closely as does Rhode Island. They do, however, exert substantial control over machine purchases and what machines are put in operation and at what properties. "The Premises at which the VLTs are to be installed and the positions in the Premises in which the VLTs are to be installed shall be determined by the Lottery. Vendor shall be responsible for the assembly and initial operation of the VLTs and all associated equipment in a manner to be approved by the Lottery."

Delaware Central System

Delaware VLTs operate in an on-line communications mode with the Lottery's central system and the video lottery agents' player tracking systems. The central system provider furnishes modem specifications, protocols, and formats of messages to/from the central computer system.

The Delaware Lottery's central system is operated by Scientific Games Inc. and runs on the AEGIS platform. The system is compatible with the industry standard SAS protocol. The vendor is compensated for the CMS at the rate of 1% of VLT revenue.

Delaware VLTs

As the purchaser and/or lessor of VLTs, the Delaware Lottery employs a similar methodology to Rhode Island's efficiency testing. As described in the Delaware Lottery contracts with VLT suppliers, ⁹ "If it

⁷ Whitesand Gaming. Report to the New Hampshire Gaming Regulatory Oversight Authority Regarding a Comprehensive Approach to Existing and Expanded Gaming. October 22, 2013. https://www.nh.gov/groa/publications/documents/whitesand-comparator-states.pdf

⁸ Delaware Awarded Contracts Directory, https://contracts.delaware.gov/

⁹ Ibidem.

becomes clear that any of the VLTs are under-performing with regard to generating Net Proceeds, then the Lottery reserves the right to alter the mix of VLTs."

"The following procedure will apply for determining the need for, and carrying out of, replacement of under-performing VLTs.

The Lottery shall maintain reports that define the performance of all video lottery terminals. The reports will apply to the overall population of video lottery terminals, to video lottery terminals provided by other vendors, and to distinct groups within the population provided by individual successful bidders. Typical groups of 'similar' terminals to be compared using such performance data will include, but will not be limited to, video display terminals against other video display terminals, and reel-type terminals against other reel-type terminals.

For comparison purposes, the Lottery will use a rolling eight (8) week review of performance data for identifying under-performing video lottery terminals. The Lottery will exercise several tests of the following nature based on the results of these reviews, including:

- a. If a group of similar video lottery terminals to the VLTs are under-performing average Net Proceeds of the total video lottery terminal population by ten percent (10%) or more;
- b. If a group of VLTs are under-performing the average Net Proceeds of a comparable set of video lottery terminals with a similar play style by ten percent (10%) or more; or
- c. If a group of VLTs are under-performing the average Net Proceeds of a comparably located set of video lottery terminals by ten percent (10%) or more.

As a result of such performance tests the Lottery will make a determination whether the group of VLTs is 'under-performing' and conversion or replacement is prudent.

For a group of VLTs determined to be "under-performing," Vendor shall have thirty (30) days in which to perform adjustments that are acceptable to the Lottery. At the end of the afforded adjustment period the VLTs will be monitored for forty-five (45) days. If the adjustments include the replacement of VLTs, then Vendor shall have forty-five (45) days in which to perform the adjustments.

If the "under-performing" tests still indicate that the group of VLTs is "under- performing," then the Lottery reserves the right to order that those VLTs be removed within thirty (30) days. The Lottery may then opt to replace the removed VLTs with VLTs from Vendor or another successful bidder, based on favorable Net Proceeds experience as determined from the Net Proceeds reviews described above, or other selection criteria. Replacement with video lottery terminals from another successful bidder will still be subject to the stipulation that no provider of video lottery terminals to the Lottery may provide more than sixty-five percent (65%) of the video lottery terminals at any Premises.

For removed VLTs, Vendor shall receive no further compensation from the Lottery, either related to Net Proceeds or to the effort and/or expense of removal. For removed VLTs, the Lottery will award those video lottery terminals as necessary to other successful bidders pursuant to 29 Del. C. §4820(b)."¹⁰

VLT Compensation

The Delaware Lottery has contracts for VLTs with six suppliers the terms of these contracts (which were recently extended) compensates VLT Vendors as shown in Exhibit 5.1.

Exhibit 5.1: Delaware VLT Lease Rates

	New	Legacy
	Machines	Machines*
IGT	6.98%	5.90%
Aristocrat	5.95%	
Bally/Scientific Games	7.00%	5.50%
Ainsworth	7.00%	
WMS	6.95%	
GTECH	7.00%	5.50%

^{*}Legacy machines are older machines that were placed under the previous contract and remain on the floor

Maryland

During the 2007 special session of the Maryland General Assembly, Chapter 4 was enacted relating to the legalization of Video Lottery Terminals in the State, subject to the passage of a voters' constitutional referendum. In 2008, voters approved the installation of up to 15,000 VLTs at five locations in the State. On August 14, 2012, Senate Bill 1 "Gaming Expansion – Video Lottery Terminals and Table Games" passed the 2012 Second Special Session of the Maryland General Assembly. This bill contained many provisions concerning gaming operations and certain provisions that were subject to voter referendum. The provisions that were subject to voter referendum passed during the November 6, 2012, election and allowed for a sixth casino, increased the number of VLTs allowed in the State from 15,000 to 16,500, authorized table games and allowed for 24/7 casino operations.

In January 2010, the Lottery entered a five-year contract with GTECH to provide for the design, development, installation and operation of a Central Monitoring and Control System for the video lottery terminal program. In July 2015, that contract was extended for another five years.

¹⁰ ibidem

Maryland is an interesting case and its experience could be a constructive analog for Rhode Island. Under the initial 2008 law, the Lottery was required to own or lease the VLTs but that was changed with subsequent new gaming laws. Maryland began phasing out state ownership, leasing or licensing of video lottery terminals.

According to the Maryland State Lottery Agency, \$71.5 million a year, including some maintenance costs, was being spent to provide machines for the first three casinos in Cecil, Worcester and Anne Arundel counties. \$10 million more than originally projected.¹¹

The fourth facility to open in the state, Horseshoe Casino in Baltimore, was required to purchase/lease their own VLTs from start up. The two facilities that had yet to open, Rocky Gap and National Harbor, procured their own video lottery terminals and by 2015 the ownership of the slot machines at the two largest facilities were transferred to the casino operators. The assumption of machine ownership or leasing (at their discretion) allowed the lottery to increase the share to video lottery operator licensees. The share at Ocean Downs was increased to 43% and the share to Rocky Gap was increased to 50%. In July 2017, the two casinos which had not purchased their VLTs took over ownership; therefore, eliminating all leases. The remaining casinos, Hollywood Perryville, Maryland Live!, Horseshoe Baltimore and National Harbor saw their share increase by 6% - 8% tied to assumption of ownership of video lottery terminals by the operator and further additional distributions in the 6% to 8% range tied to promotional costs and capital improvements in their facilities. After the increase, commissions for operators now range from 39% (Hollywood) to 50% (Rocky Gap).

The gaming law was further changed on April 1, 2015 which **required** Maryland Live! Casino and Hollywood Casino Perryville to own/lease their own VLTs. Also, effective April 1, 2015, the Lottery's percentage of gross terminal revenue dropped from 2% to 1%.

Maryland VLTs

All operators in Maryland are now (after a multiyear process) responsible for the purchase (and/or lease if they so choose) operation and maintenance of gaming devices, thus the State of Maryland pays nothing for the machines.

Kansas

In 2007, the Kansas Legislature passed the Kansas Expanded Lottery Act. This act allows for the state of Kansas to own and operate a "destination casino resort" in four gaming zones – northeast, southeast, south central and southwest – within the state of Kansas. In addition to allowing for these destination casino resorts, KELA allows for licensed pari-mutuel tracks within the state to contract with the Kansas Lottery to have gaming machines at tracks. However, none of these tracks are currently in operation and none are expected to be opened in the immediate future. The statute caps the number of electronic gaming machines at all racetracks at 2,800.

¹¹Wagner, John. "Maryland faces millions in costs after paying more for slot devices than expected." March 15, 2012. https://www.washingtonpost.com/local/dc-politics/maryland-faces-millions-in-costs-after-paying-more-for-slot-devices-than-expected/2012/03/13/gIQAPIIDFS story.html

Kansas currently has state owned and privately managed casinos: Boot Hill Casino & Resort in Dodge City, Hollywood Casino at Kansas Speedway, Kansas Star Casino in Mulvane, and Crossing Casino in Pittsburg, Kansas.

Kansas Central System

Like Rhode Island, the Kansas Lottery also requires its private managers to hook machines to a Central Management System. The Central Management System in Kansas is provided by IGT. CMS fees are based on 1.2 percent of net electronic gaming machine revenue up to \$80 million, 0.8 percent of net electronic gaming machine revenue above \$80 million up to \$160 million, and 0.3 percent of net electronic gaming machine revenue above \$160 million.

Kansas VLTs

Expanded lottery operators in Kansas are responsible for the purchase, (and/or lease if they so choose) operation and maintenance of gaming devices, thus the State of Kansas pays nothing for the machines.

LESS COMPARABLE VLT STATES

For the reasons discussed above, there are a limited number of States that require a statewide CMS and even fewer still that own, or lease, gaming devices. In this section we present information on other States that also meet one or more of the criteria above, but for the reasons we shall describe below, we do not consider to be directly comparable to Rhode Island.

Illinois

In September 2012, the state of Illinois voted to allow Video Gaming Terminals (VGTs) outside of casinos. Slot machines are allowed in bars and other liquor licensed locations. The law initially allowed for up to 5 machines in each location. SB 690, passed into law this summer will increase the maximum number of video gaming machines to six from five machines per licensed location and increase the maximum bets to \$4 from \$2. As of December 2019, there were 33,294 VGTs in Illinois located in 7,180 establishments.

Illinois Central System

The CMS in Illinois is provided by Scientific Games, per the 2018 annual report if the Illinois Gaming Board, Scientific Games is compensated with 0.8513% of Net Terminal Income from VGTs

Illinois VGTs

VGT operators in Illinois are responsible for the purchase, (and/or lease if they so choose) operation and maintenance of gaming devices, thus the State of Illinois pays nothing for the machines.

Illinois VGTs in addition to being in a much larger market than Rhode Island, are a slot route operation encompassing over 7,000 establishments with limited applicability to Rhode Island.

New York

On January 28, 2004, the New York Lottery commenced Video Lottery Gaming operations with the opening of Saratoga Gaming & Raceway (now Saratoga Casino Hotel) in Saratoga Springs. Since that date, the Lottery has opened nine additional video gaming facilities across the State. Today nine of the ten facilities continue as Video Lottery Gaming operations, ¹² running a statewide total of approximately 18,700 video lottery terminals. Video Lottery Gaming was initially conducted 16 hours per day at each gaming facility, but legislation effective August 11, 2010 allowed an additional four hours per day. Most games utilize a central determinant system that draws winners from a centralized finite prize pool, similar to an instant scratch-off game. New York also offers electronic table games in some locations which use mechanical devices or computerized random number generators to determine results for groups of players.

Central Determinant Lotteries

The VLT markets in the states of Washington¹³ and New York are the only U.S. jurisdictions in which VLTs are meaningfully different than the slot machines in Las Vegas or other traditional markets. The primary difference in New York from all other VLT States is that VLTs operate from a centralized computer system in which players compete for a limited number of electronic tickets. As with scratch-off games, once a ticket is taken out of the pool of available tickets, it is not replaced, so players are competing for winning tickets. With New York VLTs, the ticket is electronic and centrally administered. Conventional slot machines are random at the device level and may or may not be tied to a central mainframe (although they generally are).

Everi Games, Inc. (formerly known as Multimedia Games) provides a central determination system for the operation of VLTs in New York. The previous 15-year contract expired recently, on December 31, 2019. Everi was awarded a new 10-year contract after an RFP was issued in May 2019. Video lottery gaming machines are provided under contracts that were recently renewed on December 31, 2019 with two different companies: Bally Gaming Inc. and International Game Technology (formerly GTECH and Spielo International USA, Inc.). These contracts are paid based on a contractual percentage of revenue, adjusted for units of service provided. From the New York Lottery Comprehensive Financial Reports, we can determine that these fees are approximately about 6.9% of net machine income.

Everi as the video gaming central processing contractor receive fees equal to 1% of the sales generated through the network.

In addition to being a much larger market, the centrally determined VLTs in New York are truly unique and only work on the CDS system, machines must be specifically designed for this market. Thus, we do not consider New York a viable comparable to Rhode Island

Ohio

The July 2009, legislation was passed that allowed video lottery terminals ("VLTs") to be placed at the seven state racetracks in Ohio. For the CMS, the Ohio Lottery executed a contract with Intralot to

¹² Tioga Downs Casino converted to a commercial casino on December 1, 2016.

¹³ In Washington, the central-determinant machines are in Indian casinos.

continue to supply existing equipment and services to the Ohio Lottery while adding additional functionality to add up to 17,500 VLTs at the seven racetracks. ¹⁴

Ohio Central System

For the CMS Intralot agreed to a flat fee of \$3.26 million per year, plus \$449,586 per facility, or \$3.15 million. 15

Ohio VLTs

VLT operators in Ohio are responsible for the purchase, (and/or lease if they so choose) operation and maintenance of gaming devices, thus the State of Ohio pays nothing for the machines.

Like New York and Pennsylvania, we consider Ohio to large a market to be compared to Rhode Island.

Oregon

There also VLTs hooked to a Central Management System in Oregon. Like Rhode Island VLTs in Oregon are bought and owned by the state lottery. Over the past few years, the Oregon Lottery has replaced all of the VLTs statewide and upgraded the underlying infrastructure and system. ¹⁶

Oregon VLTs are a slot route operation.¹⁷ Oregon does not lease it VLTs, it purchases them.¹⁸ The Oregon Lottery has been an IGT customer since 1985. In addition to VLTs and the INTELLIGEN central system, IGT also provides the lottery with traditional draw-based lottery products and instant ticket games and services. There are approximately 11,500 video lottery terminals (VLTs) throughout Oregon.

Oregon Central System

We were unable to determine the fee structure for the Oregon Lottery's central management system.

Oregon VLTs

From the annual reports of the Oregon Lottery we cannot determine how many machines are leased and/or purchased but we can determine from the amounts being carried on the lottery's balance sheet that many of the VLTs are purchased outright by the Lottery. There is no mention of a revenue split with the providers of VLTs.

Since Oregon is another slot route system and the lottery appears to purchase most of its machine we do not consider it a particularly useful comparison to Rhode Island.

¹⁴ https://www.igamingbusiness.com/intralot-signs-video-lottery-monitoring-system-contract-ohio

¹⁵ https://ecb.ohio.gov/Print/PrintCBR.aspx?CBR=LOT0100053

¹⁶ Lottery and Gaming Outlook, 2019. Oregon Office of Economic Analysis. https://oregoneconomicanalysis.com/2019/02/13/lottery-and-gaming-outlook-2019/

¹⁷ The VLT Bounce. Frank Legato Wed, May 22, 2013 Global Gaming Business Magazine. https://ggbmagazine.com/article/the-vlt-bounce/

¹⁸ Oregon State Lottery. Comprehensive Annual Financial Report For the Fiscal Year Ended June 30, 2018.

Pennsylvania

In 2004, then Governor Ed Rendell signed The Pennsylvania Race Horse Development and Gaming Act. Under the bill, up to seven racetracks could apply for slot licenses, and the state would create five standalone slot casino licenses, and three resort casino licenses. The revenue generated from the slot machines would go almost entirely towards easing property tax burdens and school funding. In 2010, the Pennsylvania legislature passed a bill that would allow the state's existing casinos to add table games. Pennsylvania is now the second largest casino market in the country. ¹⁹

Pennsylvania recently added truck stop and bar/restaurant VGTs to its menu of gambling options. The contract with IGT allows them to sell products required to access the CMS directly to the owners of VGT establishments.²⁰

Pennsylvania Central System

Until 2015, the provider of the CMS to the State of Pennsylvania was compensated with a flat rate of \$535,000 per month, The new contract is based on the number of slot machines connected to the system at a rate of \$1,631,580 per machine connected and an hourly rate \$2500.00 per hour for system enhancements.²¹

Pennsylvania VLTs

Gaming device operators in Pennsylvania are responsible for the purchase, (and/or lease if they so choose) operation, and maintenance of gaming devices, thus the State of Pennsylvania pays nothing for the machines.

Like New York and Ohio, we consider Pennsylvania to large a market to be compared to Rhode Island. Furthermore, the new contract envisioned a vast increase in the number of gaming devices as Pennsylvania is now adding a slot route system to its already crowded market of casinos and minicasinos.

South Dakota

South Dakota's Video Lottery program is slot route operation and a joint venture between the State and private operators. The operators own and maintain the Video Lottery Terminals (VLTs) while the State operates the Central System for control and monitoring. There are currently just over 9,000 active VLTs in approximately 1,345 establishments. Each establishment is allowed up to 10 VLTs.

The most recent video lottery contract expired on November 16, 2019. The new contract took effect on November 17, 2019, and runs through November 16, 2026, with extension options for additional periods for a total contract term not to exceed 15 years. The winning bidder, Scientific Games is to provide a

¹⁹ From Horse Racing To Possibly iGaming: The Timeline of Legal Gambling In Pennsylvania. Steve Ruddock. September 14, 2015. https://www.paonlinecasino.com/425/timeline-of-legal-gambling-in-pennsylvania/

²⁰ https://patreasury.gov/transparency/e-library/ContractFiles/473958 474328 IGT%20Amendment.pdf

²¹ https://patreasury.gov/transparency/e-library/ContractFiles/291299 CCCSgtech.pdf

fully-functioning systems, including hardware, software, communications, system installation, data conversion and system operation.

South Dakota Central System

We were unable to determine the fee structure for the South Dakota's Lottery's central management system.

South Dakota VLTs

Gaming device operators in South Dakota are responsible for the purchase, (and/or lease if they so choose) operation, and maintenance of gaming devices, thus the State of South Dakota does not share revenue with device manufacturer's (although the operators might).

West Virginia

West Virginia has two types of video lottery operations racinos or casinos and a Limited Video Lottery which is a slot route operation at liquor licensed establishments.

West Virginia's casino market consists of five venues: two greyhound racetracks, two horse racetracks, and one hotel casino. The Tavern Casino at The Greenbrier is a small casino in an existing resort that discourages local play and offers only 44 VLTs and 10 table games. The Greenbrier's casino facilities are only available to overnight guests and registered convention participants, as well as golf and tennis club members.

Limited Video Lottery

Established in 2001, West Virginia's Limited Video Lottery system allows for a limited amount of VLTs, 9,000 maximum, to be located in adult only environments throughout the state. Currently there are 6,311 VLT facilities in the state of West Virginia, for this reason we do not consider it a useful comparison to Rhode Island.

6. VLT Providers, Industry Standards and the Role of VLT offerings in overall revenue performance

In this section, CCA provides an overview of industry standards with regard to VLTs and other gaming devices, including an evaluation of the efficiency formula used, replacement requirements, and premium games.

NORTH AMERICAN GAMING INDUSTRY STANDARDS

Exhibit 6.1 presents North American slot share by manufacturer and Exhibit 6.2 presents this data for Rhode Island. As shown in these exhibits, Rhode Island has an above average concentration of IGT machines. Offering machines from as many approved suppliers ensures that casino properties have the products that players have come expect. The more suppliers, the larger library of available products, which will maximize gaming revenue.

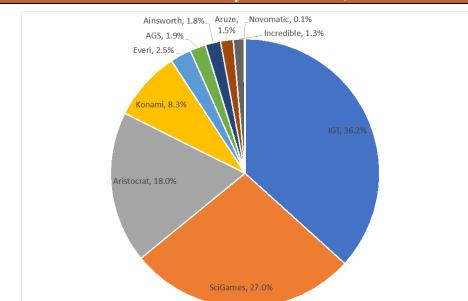
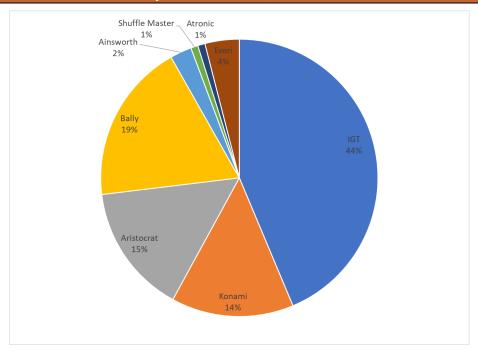


Exhibit 6.1: North American Slot Floor Share by Manufacturer, 2018

Source: Association of Gaming Equipment Manufacturers 2018 Census

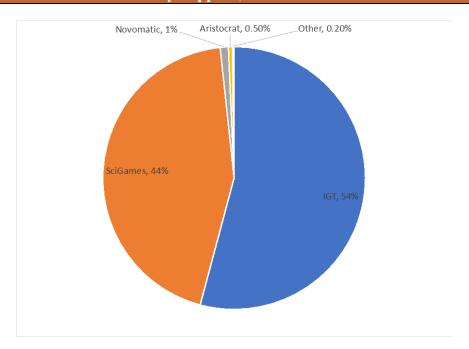
Exhibit 6.2 Rhode Slot Floor Share by Manufacturer, October 2019



Source: Rhode Island Lottery

Exhibit 6.3 presents market share for VLT and VGD markets. These markets are primarily route machine operations and many of these operators purchase used and refurbished machines, but clearly the distribution of devices in these markets are considerably different than what you would find in a casino environment.

Exhibit 6.3: VLT/VGD Market Share by Supplier, 2018



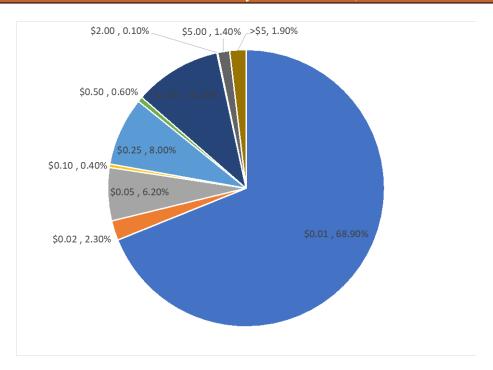
Source: Association of Gaming Equipment Manufacturers 2018 Census

Denomination Mix

The denominational mix is another important component of efficient operations. Our analysis suggests Rhode Island has effectively maintained the denominational mix.

The Exhibit 6.4 and 6.5 below compare the denomination mix in Rhode Island with North America.

Exhibit 6.5: North American Slot Machine Mix by Denomination, 2018



Source: Association of Gaming Equipment Manufacturers 2018 Census

\$25.00, 0.26% \$100.00, 0.04% \$10.00, 0.68% \$2.00, 0.06% \$1.00, 6.27% \$0.25, 2.20% \$0.05, 3.20% \$0.00, 2.07% \$0.01, 74.72%

Exhibit 6.6 Rhode Island Slot Machine Mix by Denomination

Source: Rhode Island Lottery

Exhibit 6.7 shows the percentage of owned versus leased machines in North America in total and the share excluding route operations and jurisdictions, like Rhode Island, that lease 100% of their machines.

Exhibit 6.7: North American Owned Versus Leased Machines

All North	American Devices	Excluding Route and 100% lease
Leased	15%	Leased 10%
Owned	85%	Owned 90%

Source: Association of Gaming Equipment Manufacturers 2018 Census

Owned versus leased machines

There are two types of machines leases, some casinos, like the Mohegan Sun, pay a fixed fee for leased machines. Others, like Rhode Island, pay a percentage of revenue. As shown in Exhibit 6.7, however the vast majority of slot machines in North America are purchased, rather than leased at a percentage of gaming revenue.

The math behind this is simple. In FY2019, Rhode Island casinos generated \$272 and \$277 per machine per day at Tiverton and Twin River, respectively. That is approximately \$100,000 per machine per year. Most slot machines or VLTs cost between \$15,000 and \$25,000. Most machines have at least a five-year useful life, but some remain on slot floors for 10 years or more. Thus, it is easy to see why greater than 85% of owners of gaming devices chose to buy rather than lease. And these economics likely played a

large role in the State of Maryland opting to get out of the machine owning business.

An advantage of leasing is that, in theory, the slot floor can be refreshed more often than if machines are purchased and depreciated over five years. Furthermore, if a new slot theme proves unpopular, the machines can be returned to the manufacturer to be replaced by better earners. Also, many of the new hottest titles have limited shelf lives and start out earning two to three times the casino average, but burn out within a year and need to be replaced.²² But in order to take advantage of that, the casino leasing the machine needs to replace or convert more machines the 10% per annum industry standard. If you are replacing less than that you negate that advantage provided from leasing.

Rates and replacement requirements

CCA has sought expert opinion from slot managers in other jurisdictions on typical best practices regarding rates charged and machine conversion/replacement cycles in VLT and casino environments. From these discussions with industry colleague's expert in slot floor operations, we learned that most slot managers seek to replace or convert 10% of the floor per year. They were careful to note, however, that in practice it usually ends up being slightly less than that because in bad years the slot manager's budget gets cut resulting in fewer upgrades but also in the good years the budget is not increased, so overall it usually ends up around 8% in practice.

We understand that machine replacements in Rhode Island have fallen substantially below that threshold in recent years, but as described below by lottery director Gerald Aubin, there are extenuating circumstances such as the implementation of table games and the transfer of Newport operations to Tiverton.

Per the Director of the Rhode Island Lottery:

"As a result of the Efficiency Period in 2015, IGT lost 274 VLTs. Those VLTs were removed from the Twin River second floor to accommodate space needed for the addition of 28 new Table Games. With limited space at Twin River, additional VLTs could only be allocated to Newport. Due to the investment required to install VLTs and the lack of return, Vendors declined installing additional VLTs in Newport, which had been purchased by Twin River in March, with an anticipated move to Tiverton.

For the 2016, 2017, and 2018 Efficiency Periods, it was agreed there would be no re-allocation of VLTs due to the anticipated move to Tiverton and the upcoming increased investment that would be required of the Vendors.

In October of 2016, five new Table Games were installed at Twin River. In order to make room for those Table Games, 46 of the lowest-performing VLTs were removed. All 46 VLTs removed were IGT.

With the opening of Tiverton, all Vendors were required to supply VLTs no older than five years (with the exception of high-performing games such as "Reel Fruit"), upgrade their VLTs for the new player tracking system, and bring in new bases and chairs."

²² https://www.lasvegasadvisor.com/question/slows-owned-leased/

In 2019 things got back to normal, 75 low performing IGT machines were removed in March and the Rhode Island Lottery is in the process of replacing 360 IGT machines for a total of 435 machines or 8.5%. This is within industry standards.

Premium games

Premium games, sometimes called participation games, are machines that are only available to a casino if the suppliers share in the revenue. They are often branded with intellectual property, such as the wide area progressive game *Wheel of Fortune*. These games typically have a high hold percentage of 10 percent or more, with a large jackpot that makes them attractive to the players. A percentage of either the win or of the coin-in goes to the supplier that pays the large jackpot, normally in the form of an annuity.

These machines are referred to as premium machines because some players will visit casinos seeking them out to play due to the marketing and the large jackpots. Casinos in a competitive environment must have an acceptable presence of these machines or otherwise risk losing business to nearby competitors that do. They are also useful tools to drive traffic to the least desirable locations on the casino floor and save the high-traffic, high-visibility locations for the casino's owned machines.

Due to the costs involved, the industry average of premium games has gradually declined over the years as casinos increasingly choose to minimize the number of these revenue participation games on their floor. Even though these games typically produce between two or three times the house average in win per unit per day.

From our discussions with experienced slot managers, we learned that most casino operators seek to have a range of 3 percent to 6 percent of the total machine count as participation games, with the high or low end of that range determined by what nearby competitors are doing.

Efficiency

Rhode Island performs an annual efficiency evaluation²³ to evaluate the performance of VLTs in Rhode Island's two casinos. The process is as described below.

- •Efficiency is calculated for each technology provider (Scientific Games, IGT, Everi) during the first 13 weeks of the calendar year, but efficiency is monitored throughout the year.
- •The efficiency factor allows the Lottery to analyze the percentage of NTI from a vendor to the percentage of VLTs the vendor has in the facilities.
- •Video Lottery Terminals may be reallocated based on efficiency ratings and other considerations at the Lottery Director's discretion.

²³ Excepting, as noted above, between 2015 and 2018.

The efficiency rating formula is each vendor's net terminal income percentage in relation to their percentage of the total terminals installed at the facilities, in areas designated by the Director, which is calculated by taking the percentage of net terminal income and dividing it by that vendor's percentage of terminals. The minimum efficiency rating that each vendor should be operating at is, at least, 97%.

The formula is:

$$Efficiency = \frac{Vendors\ share\ of\ NTI}{Vendors\ share\ of\ terminals}$$

After each vendor's efficiency rating is calculated, the number of terminals the Director determines to be reallocated among vendors may be done as follows:

LESS THAN 97% EFFICIENCY: Terminals may be removed proportionately with more terminals being removed from the vendor with the lowest efficiency rating

BETWEEN 97%-100°/o EFFICIENCY: Vendor's machine count could remain the same.

GREATER THAN 100% EFFICIENCY: Terminals may be added proportionately with more terminals being awarded to the vendor with the highest efficiency rating.

EXCEPTION: If all vendors have an efficiency rating of 97% or above, reallocation may not occur for that year.

The Rhode Island efficiency formula above is an effective means of evaluating machine performance and is similar to that employed by many slot managers across the country. However, slot managers are primarily interested in the overall return or profitability provided by the machines on the floor. Unlike the State of Rhode Island, they are agnostic about whether they should purchase X machines from IGT, X machines from Bally and so forth. While net terminal income (NTI) is important and should be evaluated annually so that valuable floor space is revenue maximized, it is an imperfect measure of the popularity of different types of machines. The reason is that some games, video poker being a prominent example, have an inherently smaller house edge. Thus, while a video poker machine could be generating twice as much play as a machine with a larger house edge, it will look less attractive on a revenue or NTI basis while it is actually seeing greater utilization than the higher house edge machine.

The percentage of the total coin-in or cash played is a better measure of the popularity a given machine. However, we would not abandon the NTI model as profitability matters as well. For example, a given number of video poker machines may be performing great in terms of coin-in, but a machine with a higher hold percentage and lower coin-in may be more profitable in that location. Video poker machines are popular in many developed markets across the country, in large part because repeat

gamblers are more experienced and sophisticated and are aware of the lower house advantage.²⁴

We would suggest a two-stage process. One that utilizes the same efficiency formula as above but with coin-in or cash played to determine the popularity of certain machines followed by the current NTI analysis to determine which machines would be the most profitable in that location.

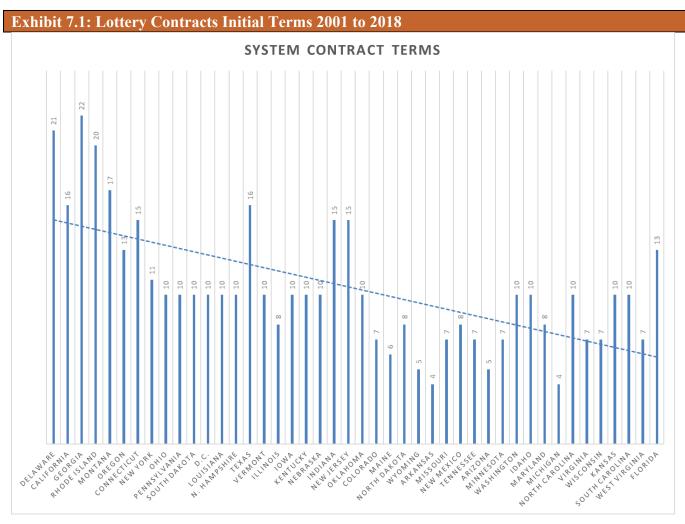
The Rhode Lottery should continue to identify underperforming models and replace them with new models, and the Lottery should encourage new suppliers of gaming equipment enter the Rhode Island market. The more suppliers, the larger library of products, which will maximize gaming revenue. It is a well-established maxim among slot managers that variety matters.

²⁴ This change will likely work to the benefit the IGT, as they are by far the market leader in video poker devices.

7. CONTRACT LENGTH, CHANGING TECHNOLOGY AND MARKETS

As part of our analysis CCA has compiled and analyzed data on the length of existing lottery contracts.

It should be mentioned that over the past decade CCA has consistently advised all its lottery clients not to enter technology driven central system contracts with any vendor for an initial term greater than 10 years. ²⁵ And we usually also recommend optional extensions of half that term after the initial 10 years. Exhibit 7.1 below presents the initial online system terms for all lottery contracts entered since 2001. Exhibit 7.1 presents the lottery contract terms in chronological order going from left to right. As can clearly be seen the trend has been for considerably shorter initial terms. Since 2013, only one online system contract has been awarded for a period greater than 10 years; Florida, which entered a 13-year contract with IGT in April of 2019.



²⁵ Including the Illinois Lottery, the Hoosier Lottery, the DC lottery and the Massachusetts Lottery

While it is certainly true that many (a majority in fact) contracts are extended beyond their initial term because there are advantages to incumbency that include having staff and infrastructure already in place. Whether or not a lottery decides to extend a contract, or, as also often happens, award the contract after a competitive procurement process to the incumbent bidder is beside the point. What matters is that the lottery has the **choice** after the end of the initial term.

As stated above, a ten-year initial contract term, with optional extensions, has been a standard recommendation from CCA for the last 15 years. In 2020, however, we believe that this is even more urgent. The primary reasoning behind a ten-year term is mitigate the impact of a lottery getting caught between technology changes. While it is true that changes in lottery technology tend to be more evolutionary than revolutionary, and many existing systems are approaching 20 with only minor upgrades, that is really about the limit of their useful lives. A ten-year term gives the lottery flexibility to survey the technology of the times and then determine whether a system upgrade is necessary.

So, what's different about 2020? We do not expect any considerable changes in the technology of the central system or even the retailer terminals²⁶ over the next ten years, but we do expect a key change in payment technology that is very likely to necessitate significant upgrades to retailer terminals and all lottery point of sales including instant ticket displays and ITVMs.

The first iPhone, the iPhone 1 was only introduced in 2007. In a mere 13 years, iPhones and their smartphone competitors have become ubiquitous. And increasingly we are using these devices to pay for goods and services with a scan and a click. Furthermore, we also use them to retain important documents, such as airline tickets and proof of insurance. By the end of this decade, it appears very likely most of us will be using our iPhones or other devices for the majority of our purchases, and when that day comes lotteries do not want to be left behind.

²⁶ With the exception of some additional functionality and likely a reduction in size.

8. Unique role of state in control over casino operations

The Rhode Island Lottery has a staff of 55 employees assigned to the Casinos 24/7. These include:

- •Operations and Compliance –Responsible for acting as the liaison to casino staff, ensuring all aspects of casino gaming are conducted by casino personnel in accordance with Lottery and Department of Business Regulations (DBR) requirements.
- •Finance Staff -Oversight of all financial aspects of the VLTs and casino games ensuring casino's reporting accuracy, compliance with the Lottery's internal controls and procedures, and audits of gaming operations.
- •IT and Surveillance -Responsible for integrity of systems, surveillance of casino activities on the gaming floor, money room cash counts, etc.
- •Compliance Representatives –Present on gaming floor 24/7 observing all game play activities and conduct of dealers and patrons.
- •Security Inspectors/Investigators –Ensuring security and integrity of gaming activities, investigate any issues related to gaming activities, and making referrals of criminal activity to the GEU within state police, as appropriate.

The Lottery is responsible for operating and regulating all aspects of casino gaming in accordance with state law and Lottery/DBR requirements, as well as investigating any issues, monitoring the gaming floors, and overseeing all accounting and financial controls.

We are unaware of another jurisdiction that the lottery exerts such control over VLT gaming, even the closest state to the Rhode Island model, Delaware, owns or leases the VLTs and central system but does not direct day to day operations as does Rhode Island.²⁷

²⁷ Whitesand Gaming. Report to the New Hampshire Gaming Regulatory Oversight Authority Regarding a Comprehensive Approach to Existing and Expanded Gaming. October 22, 2013. https://www.nh.gov/groa/publications/documents/whitesand-comparator-states.pdf

9. QUALIFICATIONS OF OTHER POTENTIAL VENDORS

In this section CCA provides the RIGA with information on suppliers other than IGT/GTech of these various services.

Scientific Games

Scientific Games is a significant provider of customized computer software, software support, equipment and data communication services to lotteries. The company provides gambling products and services to both the lottery and casino gambling industries. The publicly traded company is headquartered in Las Vegas, Nevada, and its products include computerized and mechanical slot machines, table games, iGaming and iLottery products, instant lottery games, lottery gaming systems, terminals and services, internet applications, server-based interactive gambling terminals, gambling control systems, social gaming, and sports betting.

Scientific Games was the first company to introduce a secure instant lottery ticket, in 1974, and they still lead that industry today. The company employs about 8,600 people globally and owns several notable subsidiaries including Bally Technologies and WMS Industries, as well as operating the UK sports-betting platform OpenBet. Scientific Games currently supplies more than 70 percent of lottery instant games in the U.S. and provides games, technology and services to more than 150 lotteries worldwide in 50 different countries, including nearly every North American lottery.

The Scientific Games central systems use proprietary technology that facilitates the processing of wagers as well as validation of winning draw and instant tickets. Scientific Games' lottery systems include the supply of transaction-processing software, draw lottery games, keno, point-of-sale terminals, central site computers and communication platforms as well as ongoing operational support and maintenance services. Scientific Games has contracts to operate online lottery systems for 11 of the 45 U.S. states that operate draw lotteries. Internationally, Scientific Games has lottery systems operating in Argentina, Australia, Canada, China, France, Germany, Hungary, Iceland, Israel, Latvia, Mexico, Norway, the Philippines, Spain, Sweden and Switzerland.

Furthermore, Scientific Games provides video lottery central monitoring and control systems and networks. Scientific Games currently has central monitoring and control systems contracts in Australia, Canada, Delaware, Iceland, Illinois, Maine, New Mexico, and South Dakota.

Intralot

Intralot is another supplier of integrated gaming and transaction processing services in the lottery sector with over 5,500 employees operating in 55 jurisdictions on five continents. Intralot is certified according to the World Lottery Association's Security Control Standard and also holds an International Organization for Standardization 20000 Certification for Information Technology Service Management. Intralot is also certified as complying with Gaming Standards Association requirements including those related to Game to Game Message Protocol. Intralot is the online systems provider for 11 states.

While we would emphasize that **no** lottery system supplier performs error free (that's why almost all lottery contracts include liquidated damages provisions). The company has had some recent issues with

its systems, notably in South Carolina, where about 71,000 faulty tickets were produced in a two-hour window. Instead of a \$500 prize, the "winners" got \$1 refunds. "Intralot was forced to pay South Carolina \$1.7 million in tickets cashed by players that should not have won before the 'glitch' was caught," 28

Also, in the first bidding for a private manager of the Illinois Lottery, questions were raised about Intralot's suitability. We present this information to the RIGA in the interest of full disclosure, we do not have an opinion about the matters presented herein, and we would note that despite the misgivings expressed in the first private management agreement in Illinois, when Camelot took over the management of the Illinois Lottery, Intralot is now the supplier of the central system.²⁹³⁰

Everi

Everi Holdings Inc., formerly Global Cash Access Holdings, Inc., is a company based in Spring Valley, Nevada that produces slot machines and provides financial equipment and services to casinos.

Global Cash Access expanded into the slot machine business by purchasing Texas-based slot maker Multimedia Games for \$1.2 billion in December 2014. The company changed its name to Everi Holdings in August 2015.

Everi does not have any lottery system contracts but supplies the central determinant systems for both Washington and New York.

"In light of the questionable background of certain key executives of Intralot and its parent corporation, including numerous criminal indictments brought against them for alleged money-laundering, fraud, embezzlement, bribery, misleading investors and espionage, coupled with Intralot's loss of licenses in Bulgaria and South Africa and its dismal performance record in Australia, Intralot would be hard-pressed to establish that it would have passed Illinois' probity standards for serving as private manager," the report said.

"The report said Intralot failed to disclose the ownership interests of two people — Sokratis Kokkalis and Constantinos Antonopoulos — in the company. Both had been indicted for criminal offenses in the past, although the report also noted both were acquitted."

"Kokkalis was indicted at least four times by Greek prosecutors for money-laundering, fraud, embezzlement, bribery, misleading investors and espionage, the report said."

https://www.rrstar.com/x535931766/Losing-lottery-bidder-wouldnt-pass-check-state-says

In November 2014, Constantinos Antonopoulos resigned from his position as Intralot's CEO. In May of 2019 Mr. Kokkalis took over as CEO.

²⁸ Thousands of South Carolinians won the lottery on Christmas — or so they thought. Now some are suing. Meagan Flynn June 1, 2018. https://www.washingtonpost.com/news/morning-mix/wp/2018/06/01/thousands-of-south-carolinians-won-the-lottery-on-christmas-or-so-they-thought-now-some-are-suing/

²⁹ Losing Illinois lottery bidder wouldn't have passed check. Doug Finke, Nov 18, 2010. Summarized below:

[&]quot;The report also cited information uncovered by Kroll Associates, an investigative firm hired by the state to conduct background checks on the bidders."

³⁰ Katherine Rosenberg-Douglas Chicago Tribune Feb 28, 2019A glitch made some winning Illinois Lottery tickets worth more. Here's what happened. https://herald-review.com/business/a-glitch-made-some-winning-illinois-lottery-tickets-worth-more/article 759e3071-36f5-5c15-b1d4-7ee61c44d816.html

In 2009, gaming regulators recommended denying renewal of the company's license to do business in Arizona casinos, because of allegations that Global Cash Access had defrauded banks out of \$26 million in transaction fees between 1999 and 2002, by miscoding Visa cash advance transactions as retail purchases. In response, co-founders Karim Maskatiya and Robert Cucinotta, sold their 26 percent interest in the company, and GCA ultimately paid \$1 million to Arizona to settle the investigation.³¹

Pollard Banknote

Pollard Banknote designs, develops and manufactures instant tickets and provides related programming, design, and marketing support. As well, Pollard Banknote manufactures ticket vending machines, pull tab tickets and bingo paper; offers licensed games; and supplies lottery management services (including warehousing and distribution).

Established in 1907, the firm is owned by the Pollard family and the Pollard Banknote Income Fund and currently serves more than 45 lotteries worldwide, including lotteries in the United States, Canada, Europe, Asia, and Central and South America. The company operates five manufacturing facilities with a combined workforce of more than 1,300.

Pollard is an Instant Ticket provider for 21 states lotteries.

³¹ https://en.wikipedia.org/wiki/Everi Holdings

10. TIMING AND IMPLEMENTATION OF SYSTEM VENDOR CHANGEOVERS

CCA has researched and analyzed recent system changeovers in the United States. Below we provide a description of some of the more prominent and recent conversions and provide a list of system changeovers performed in other jurisdictions since 2005, as well as a timeline for each handover.

The Case of Illinois

On July 28, 2016, the Illinois lottery announced the release of a Request for Proposal ("RFP") for a new private management partner. The Lottery received one RFP bid response, from Camelot Illinois. The Illinois Lottery and Camelot Illinois entered into a new 10-year private management agreement on Oct. 13, 2017. In January 2018, Camelot replaced Northstar as private manager and began an extensive business and technology transition.

The Lottery and Camelot completed the technology transition by the end of fiscal year 2019. It is worth noting that this handover was one of the largest lottery transitions ever undertaken by a U.S. lottery. Intralot installed new technology in approximately 7,500 retail locations. The transition included a new central gaming system, a new instant ticket management system, a new internal control system, all new retail terminals and equipment and a new website and mobile app that allow players to buy tickets for draw-based games from their phones.

Specifically, Intralot installed the next generation of Photon clerk operated lottery terminals, and the Genion, a compact ticket checker utilizing optical technology. Intralot also introduced a player-operated terminal called the WinStation 30 (Win30). The WinStation 30 is a 30-bin dispensing machine that is player-activated through a touchscreen with a high-definition monitor. The contractual provisions also included digital channel integration points to the Central System, high speed printers, a full suite of peripheral devices, a retailer communication network, a retailer financial portal, asset tracking systems, retail call center management and field service support.

The Case of Ohio

On June 30, 2009, the Ohio Lottery switched vendors from GTECH for the first time since 1985.³² At the time of the changeover the Ohio lottery had 8,800 retailers. The new system went live on July 1st, 2009 after a one-year conversion contract that began on July 1st, 2008. After the conversion the contract had an initial term of two years with up to four, two-year renewals (The Lottery's budget is only approved every two years by the state and therefore contracts cannot exceed two years).

The contract included 8,800 new clerk operated Point of Sales terminals (and related peripherals) and 2,000 player activated self-service terminals. According to the agreement, the Ohio Lottery was able to choose among one of the following Intralot terminals; the CORONIS HEE terminal, the microLOT for space constrained retailers terminal and the iris terminal.

There were some small initial issues with the changeover, but they were quickly resolved. Many stores were unable to sell tickets for Pick 3, Pick 4, Classic Lotto, Mega Millions and other games after the

³² Ohio Lottery switches to Greek operator Intralot. Lottery Post. Jun 30, 2009, https://www.lotterypost.com/news/196261

lottery switched over to the new system. Tickets sold before 6:20 a.m. were marked "void not for sale." Stores also couldn't cash in winning tickets that had been bought before the changeover. The problem was fixed within four hours, however, and lottery spokesman, Marie Kilbane Seckers, said "Was it perfect? No. Are we aiming in that direction? Absolutely." Of the lottery's 8,800 retailers, about 8,000 were wired and ready to go.³³

Exhibit 10.1 presents a summary of recent lottery system conversions and the time it took to transfer the systems over to new suppliers. They range from approximately 250 to 450 days. A conversion in Rhode Island would likely be on the low end of that range. We expect that in Rhode Island with less than 1,200 retailers this conversion could easily completed within a year, and if time was really short it could probably be done within nine months.

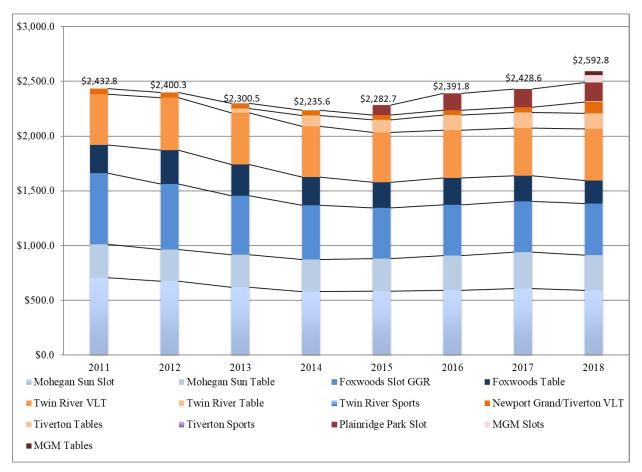
³³ Glitches arise with change in lottery. Posted Jul 2, 2009. https://www.dispatch.com/article/20090702/NEWS/307029602

Jurisdiction	: Length of Lottery Sys Old Lottery System	New Lottery	Contract Awarded/	Conversion	Conversion	# of
Jurisulction	Vendor		Contract Awarded/		Time	retailers
	vendor	System Vendor	Conversion Started	Completed	Time	retailers
Arizona	GTECH	Scientific Games	July-15	August-16	424	3,050
	Scientific Games GTECH					3,200
Colorado	(LTE)	GTECH/IGT	January-14	November-14	293	2,
D.C.	GTECH	Intralot	March-10	November-10	238	522
		Camelot				7,500
Illinois	GTECH	(Intralot)	February-18	December-18	303	
Indiana	Scientific Games	GTECH/IGT	September-12	June-13	282	3,795
Kansas	GTECH	Scientific Games	October-17	July-18	248	1,709
Louisiana	GTECH	Intralot	March-09	June-10	483	2,800
Nebraska	Intralot	GTECH/IGT	August-10	June-11	329	1,150
New Hampshire	Scientific Games	Intralot	May-09	July-10	408	1,250
New Mexico	GTECH	Intralot	November-07	November-08	368	1,100
Ohio	GTECH	Intralot	July-08	July-09	365	8,000
South Carolina*	Scientific Games/Intralot	GTECH/IGT	July-17	May-18	316	1,709
South Dakota	Scientific Games	GTECH/IGT	October-08	August-09	279	620
Vermont	Scientific Games	Intralot	June-09	July-10	371	700
West Virginia	Scientific Games	GTECH/IGT	January-08	July-08	167	2,000

^{*}The South Carolina contract was awarded in 2017, but not signed until when Feb 14, 2018 state panel ruled against Intralot's challenge of IGT award

11. RHODE ISLAND CASINO PERFORMANCE

In this section we review the historical performance of Rhode Island casino facilities. Exhibit 11.1 presents a summary of all the gaming facilities (slot machines, VLTs, table games and sports wagering) in southern New England over the past eight calendar years. CCA has converted all values to calendar rather than fiscal years because we can only get Connecticut table revenues by calendar year. In this exhibit the Connecticut casinos, Mohegan Sun and Foxwoods, are indicated by blue bars (slots and tables), Twin River Casino Hotel, Newport Grand, and Tiverton Casino Hotel with orange bars, and Massachusetts gaming facilities MGM Springfield and Plainridge Park Casino with red bars.



Sources: Rhode Island Lottery, Massachusetts Gaming Commission, Connecticut Division of Special Revenue, Mohegan Tribal Gaming Authority Form 10-K, Electronic Municipal Market Access, Christiansen Capital Advisors estimates.

Like most U.S. gaming markets, total gaming revenue in southern New England was down in 2013 and 2014 but began recovering in 2015 and that recovery continued into 2018. As depicted by the trend lines, the addition of tables and a hotel at Twin River Casino Hotel, the transfer of Newport Grand gaming operations to Tiverton Casino Hotel and their subsequent expansion to table games and the authorization of sports wagering have, so far, substantially mitigated the competitive impact of expanded gaming in Massachusetts. In fact, as of the end of 2018, statewide gaming revenue in Rhode Island has increased from \$615.8 million in 2015 (the year Plainridge Park Casino opened) to \$726.8 million in 2018 an increase of 18%; this makes Rhode Island somewhat unique by increasing gaming revenue in the face of out-of-state competition.

Exhibit 11.2 shows the most recent (last twelve months) win per unit per day figures for gaming devices at these same facilities. Win per unit per day primarily measures the balance between supply and demand for machine gaming. For example, markets (or, individual facilities) with limited supply typically exhibit a high win per unit per day. For example, Plainridge is statutorily prohibited from offering more than 1,250 slot machines. Due to these supply constraints Plainridge's win per unit day is higher than it would be if they could offer more machines (in which case their gross gaming revenue would be higher but win per unit per day would be lower). Because of this win per unit per day is not necessarily a good indicator of whether a slot floor is efficient and competitive. However, for all the

other facilities in the region that suffer no such constraints, it is a decent negative indicator, i.e. a win per unit per day lower than your nearby competitors is a good indication that something is wrong. That is not the case here, at approximately \$272 and \$277 per unit per day, Twin River and Tiverton respectively are outperforming most of the new Massachusetts competition and are performing very well on win per unit. Furthermore, Foxwoods and Mohegan Sun's recent (last twelve months) win per unit per day figures are meaningfully higher than they have been in the past few years. Both the Connecticut facilities have removed over 1,000 machines since MGM Springfield opened, which has the effect of goosing their most recent W/U/D a bit.



Exhibit 11.2 Win per Unit per Day, Southern New England Casinos

Sources: Rhode Island Lottery, Massachusetts Gaming Commission, Connecticut Division of Special Revenue

Taken together these two exhibits show that Rhode Island casinos appear to be effectively monitoring and maintaining performance on the slot floors of Twin River and Tiverton. While there is always room for improvement, based upon the above, to suggest that Rhode Island casinos are underperforming the competition is simply without merit.

12. RHODE ISLAND LOTTERY PERFORMANCE AND BENCHMARKS

Exhibit 12.1 shows instant sales per adult for U.S. lotteries and compares Rhode Island (indicated by a yellow bar) with comparable and nearby competing lotteries (indicated by red bars). As in many categories, the Massachusetts Lottery's performance is off the charts. Rhode Island at \$93.3 per adult is consistent with the many of the most comparable lotteries outside of New England, but measurable underperforms compared to its New England peers.

Exhibit 12.1: Instant Ticket Sales per Adult

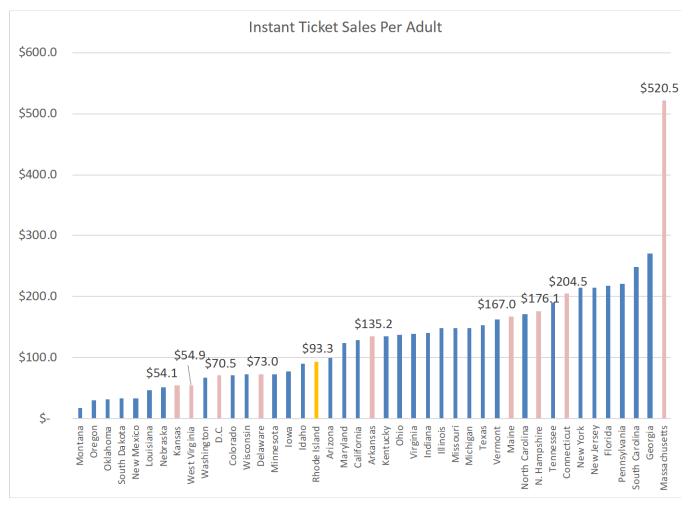


Exhibit 12.2 shows online or draw sales per adult for U.S. lotteries and compares Rhode Island (indicated by a yellow bar) with comparable and nearby competing lotteries (indicated by red bars). Rhode Island at \$73.1 per adult is slightly above the observed average and outperforms many comparable lotteries outside of New England except for the Maryland and DC Lotteries. The DC Lottery, however, generates a large sales per adult because of lottery purchases from customers outside the District.

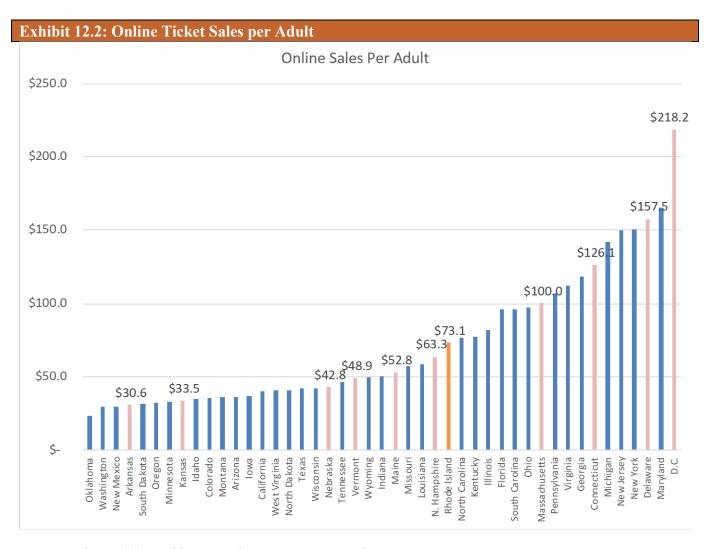
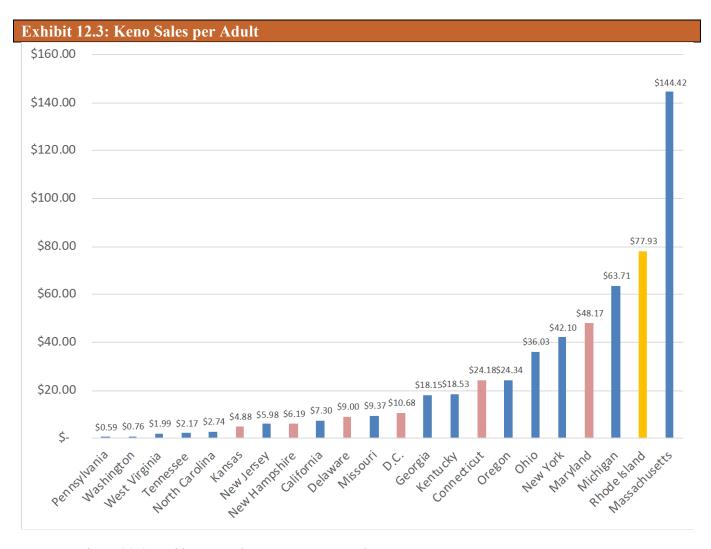


Exhibit 12.3 shows keno sales per adult for U.S. lotteries and compares Rhode Island (indicated by a yellow bar) with comparable and nearby competing lotteries (indicated by red bars). Rhode Island at \$77.93 per adult is well above the observed average and outperforms all other comparable lotteries except for Massachusetts.



Another way to analyze and compare lottery performance is to look at sales per retailer. Exhibit 12.4 shows instant ticket sales per adult for U.S. lotteries and compares Rhode Island (indicated by a yellow bar) with comparable and nearby competing lotteries (indicated by red bars). Much like in terms of sales per adult, sales per retailer for instant tickets in Rhode Island, at \$83,573 per retailer is below average and meaningfully below its New England peers.

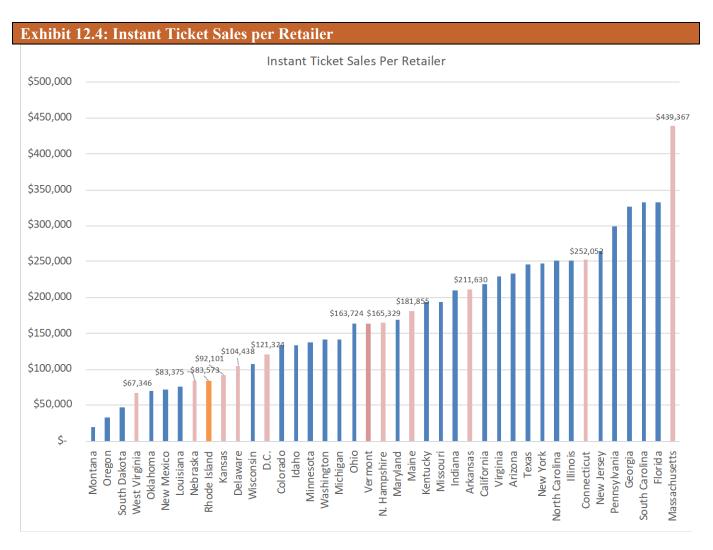
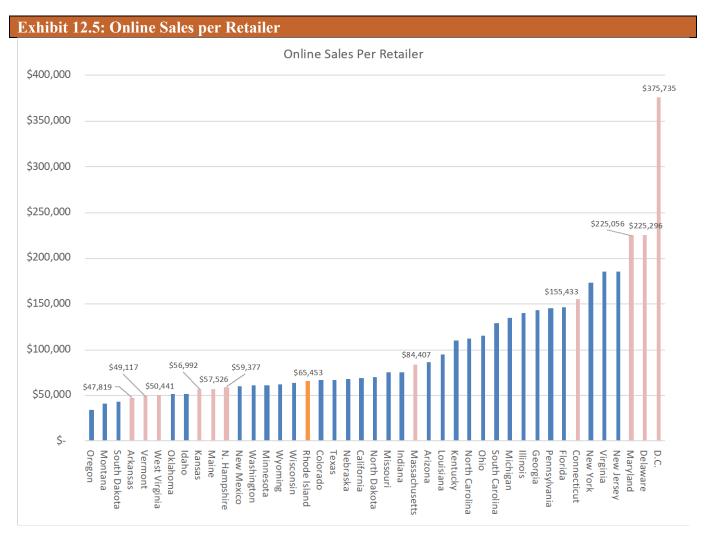
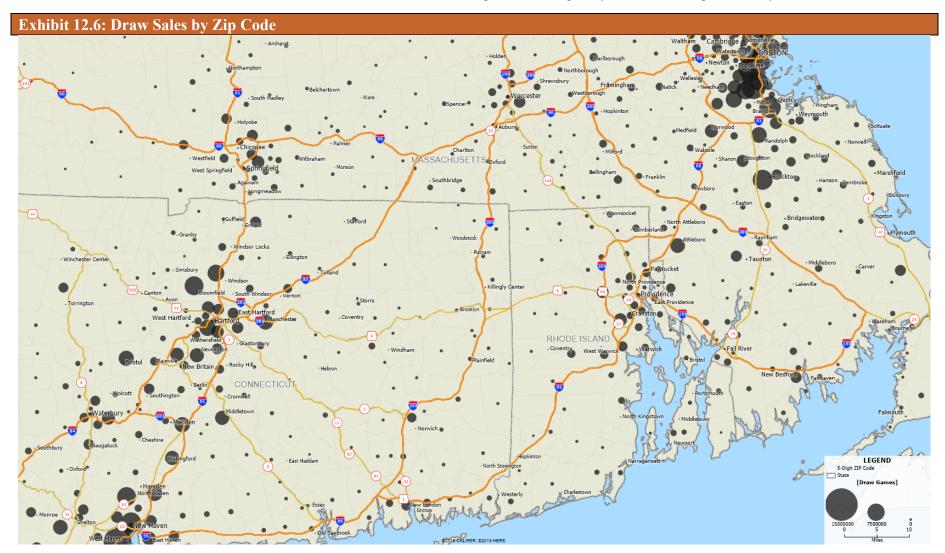


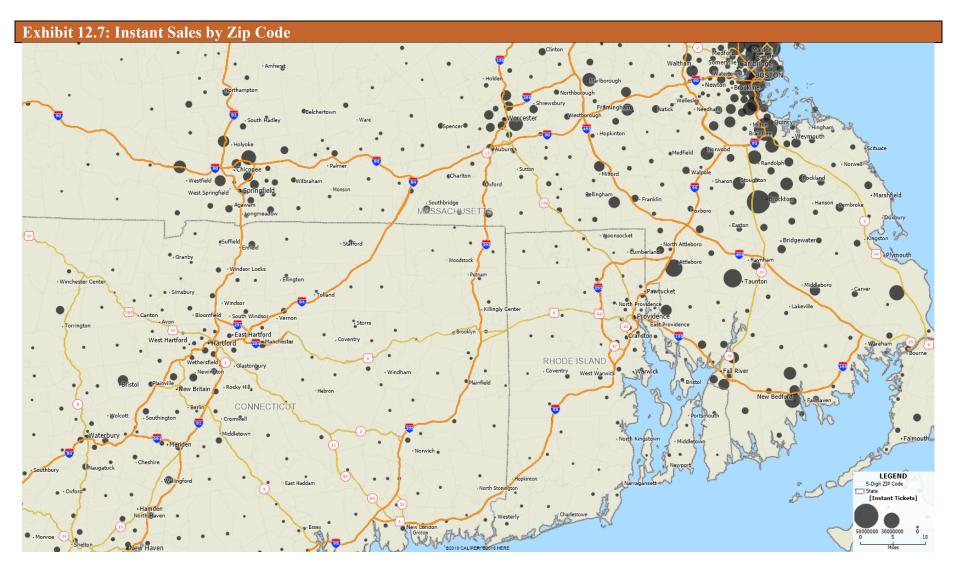
Exhibit 12.5 shows online or draw sales per retailer for U.S. lotteries and compares Rhode Island (indicated by a yellow bar) with comparable and nearby competing lotteries (indicated by red bars). Rhode Island at \$65,543 per retailer is slightly below the average and underperforms Massachusetts and Connecticut outperforms and the comparable lotteries in the Mid-Atlantic. As noted above, however, the DC Lottery likely generates a large sales per retailer because of lottery purchases from customers outside the District.

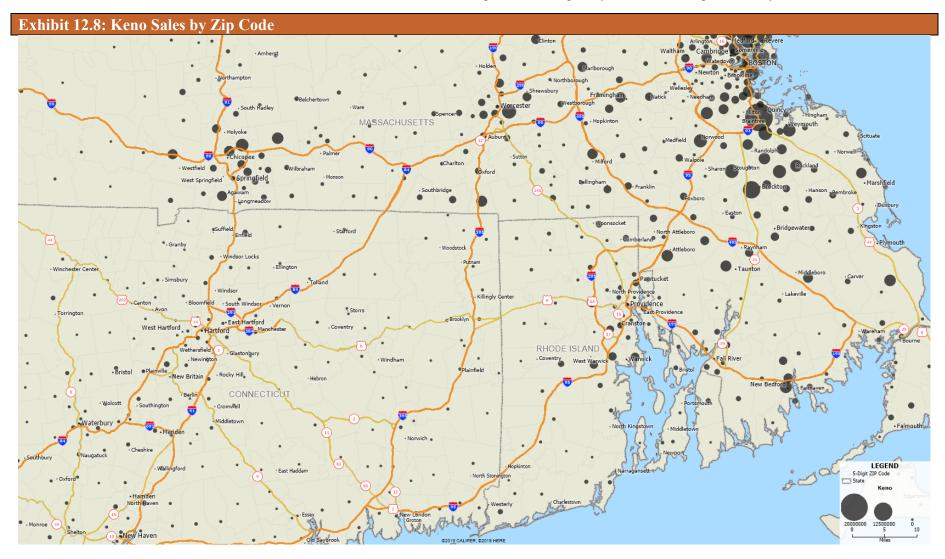


Source: LaFleur's 2019 World Lottery Almanac, Lottery Annual Reports

The following pages present a cross border analysis of lottery sales by mapping total lottery sales and per adult lottery sales by zip code for Rhode Island and the neighboring states of Connecticut and Massachusetts. Exhibits 12.6-8 map total sales by game type (Instant, Draw and Keno). The relative level of sales is indicated by the size of the gray circles, large circles indicate greater sales. From these charts we can see that Rhode Island is fairly competitive in terms of its online product with larger circles corresponding to areas of greater population. That is not true of instant sales, however, where these circles are considerably smaller, and, importantly it appears that many of the Massachusetts zip codes, particularly those nearest to Providence are meaningfully larger.

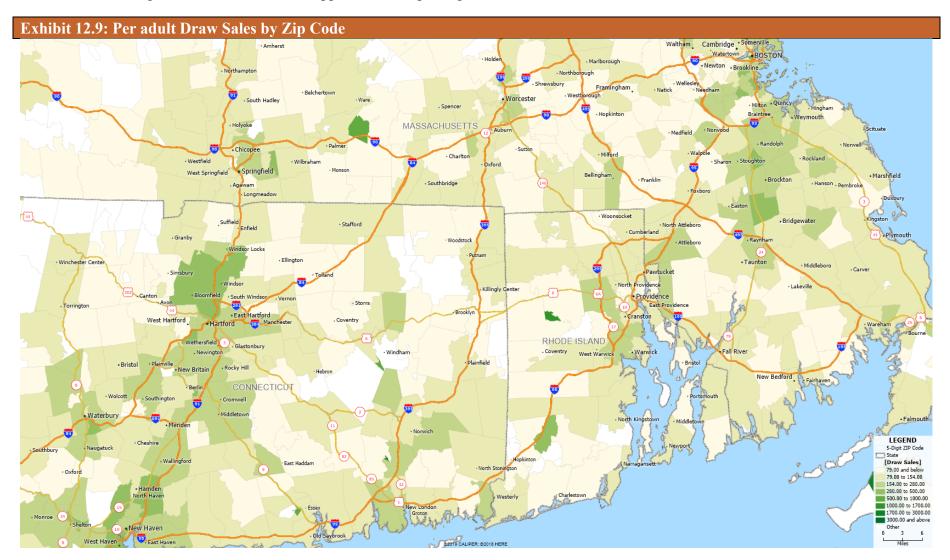


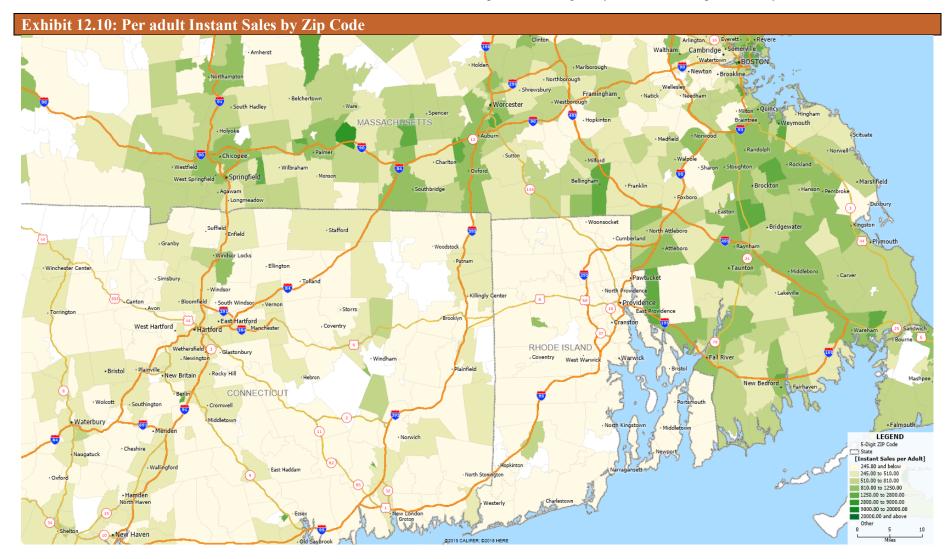




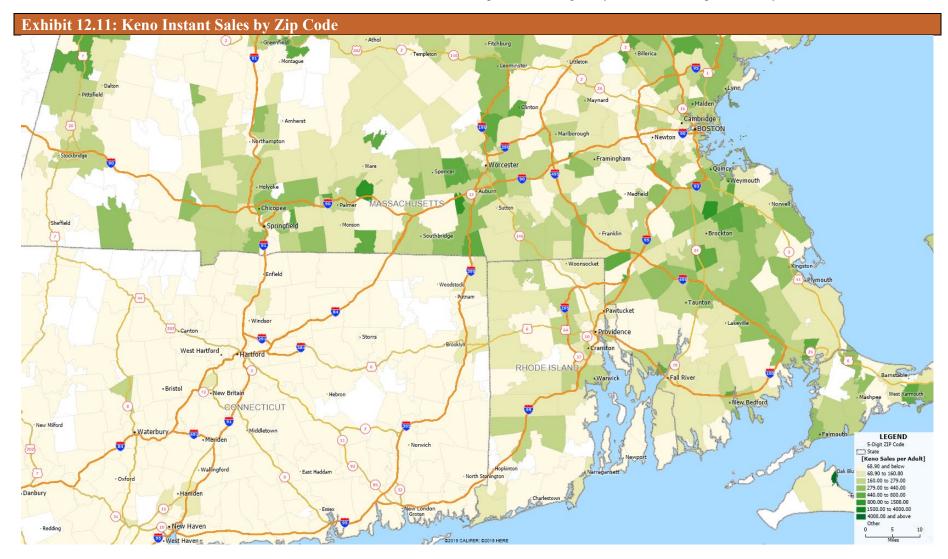
In Exhibits 12.9-11 we present similar maps, this time with per adult sales and a color legend to indicate zip codes of high per adult sales (green) trending down to yellow. As in the total sales exhibits above the draw sales component appears relatively healthy with a blend of yellows and greens in Rhode Island that are roughly on par with neighboring states. This is not true for per adult instant sales, and the

difference is stark. On a per adult basis Rhode Island is significantly underperforming its neighbors. And, more importantly based upon the level and shades of green around Providence, appears to be exporting some instant ticket business to Massachusetts.

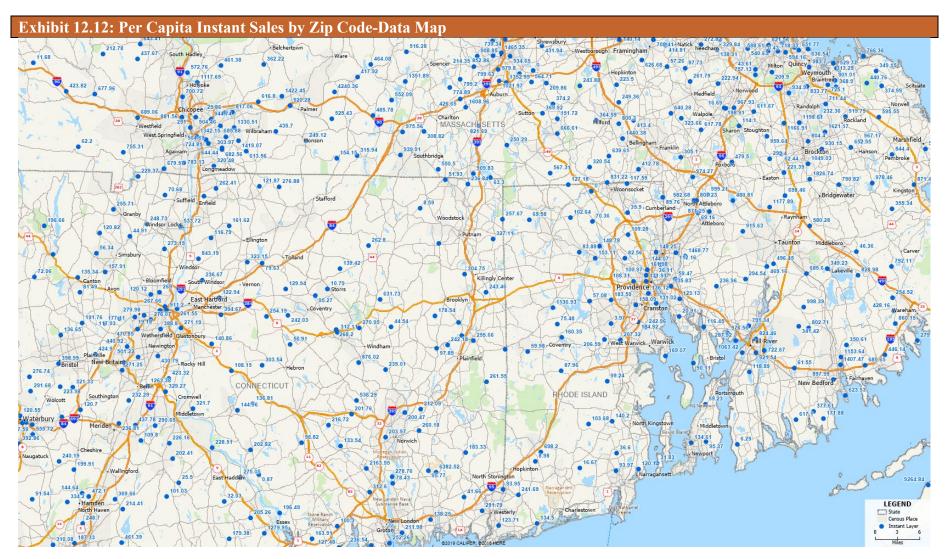


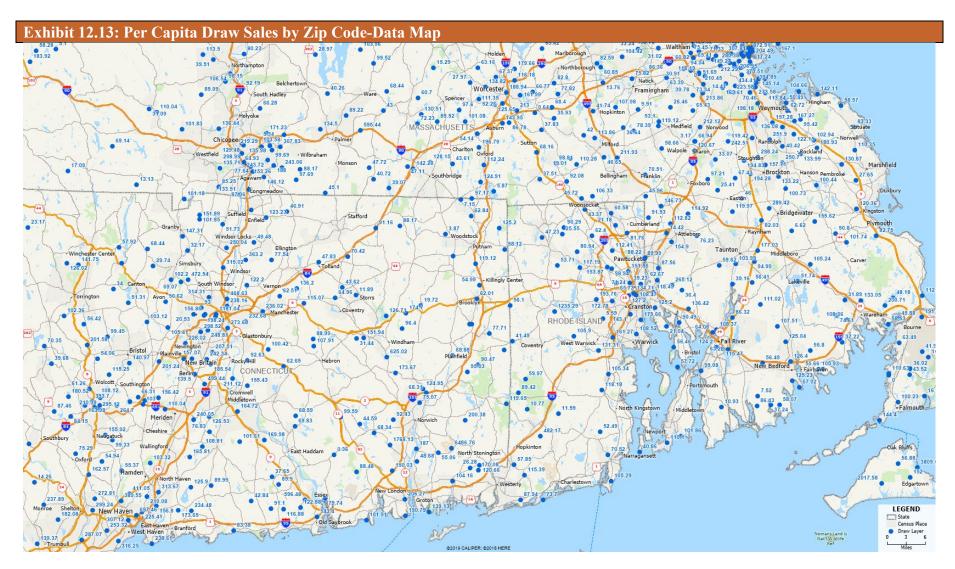


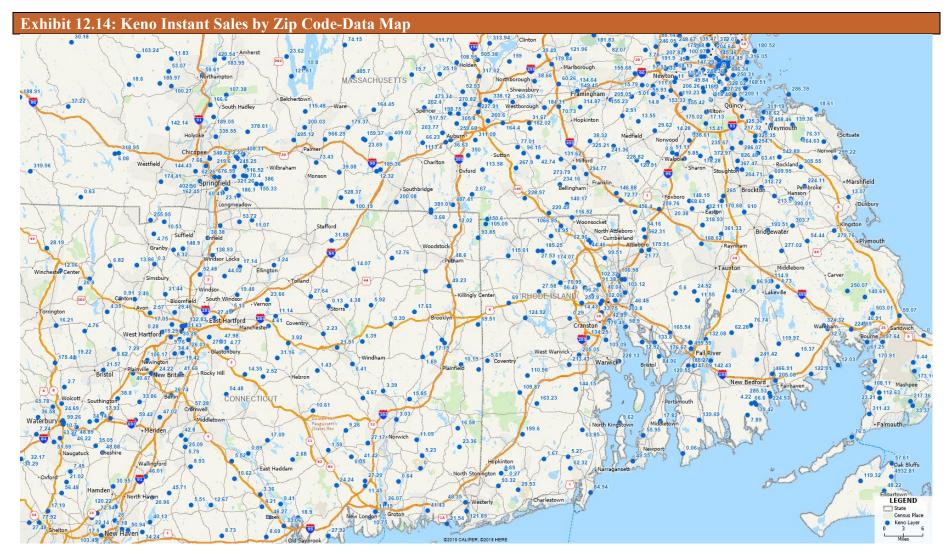
Keno Sales are better, and both Massachusetts and Rhode Island are overperforming Connecticut in Keno.



Exhibits 12.12-14 present the same information as above, but in order to get a sense of the values we have created a data map that shows the actual per adult sales values.







13. EVALUATION OF PROPOSED CONTRACT EXTENSION

According to the documents we have reviewed the new Master Contract will include provision that require that:

- Minimum of 25% of the VLTs at Lincoln will be replaced by 12/31/20
- 6% of VLTs replaced annually starting in 2021
- 5% of a vendor's VLTs must be premium or royalty games
- All new VLTs at Lincoln and Tiverton will have bonusing
- All payments to IGT will be net of 20% promotion points
- IGT's VLT share will still be subject to efficiency testing, with "may" changed to "shall"
- Low-performing VLTs (earning less than 150% of floor average) subject to review and replacement by Lottery
- IGT shall perform a game kit conversion on a minimum of 2% of their total VLT units annually.
- IGT will install a new online lottery solution on or before July 1, 2020, with complete online lottery solution replacement on or before July 1, 2031. This will include a full range of game types and age, identify and location verification function and iLottery to be installed on or before October 1, 2021, with replacement in place on or before April 1, 2033.
- IGT will assume all responsibilities for lottery sales personnel (the Director has indicated this saves State around \$1.25 million a year) and that the 12 lottery sales representatives would be guaranteed employment and same compensation by IGT for first year.
- IGT will replace the existing Internal Control System (ICS) for the online lottery system with a new ICS on or before July 1, 2020.
- IGT will pay the State \$12.5 million in 2023 and 2024 for a total of \$25 million

Furthermore, the Rhode Island Lottery Director informed CCA that in addition to a new online system, the Rhode Island Lottery will be able to obtain 2 additional modules in first 8 years of the contract. A full system upgrade ten years in, and another two modules after this upgrade.

For these services, IGT will be compensated as follows:

Traditional Lottery System

Total Lottery Sales	Percent
0-\$275M	5%
\$275M-\$400M	4%
Over \$400M	5%

VLT Lease Rates

Total Average Daily Net Income	Percent
0-\$325 per day	7%
\$325-\$500 per day	1%
Over \$500 per day	7%

VLT Central System

Total NTI	Percent
0-\$500M	2.5%
500M-\$1B	1%
Over \$1B	2.5%

Technical Evaluation

In terms of the services provided this is a strong technical proposal. The mandated acceleration of the VLT replacement cycle is a marked improvement over the previous contract, although as we have noted in this report the recent lapse in the replacement cycle has been due to the extenuating circumstances of adding table games and relocating a casino. Furthermore, as we have also noted in this report, the data indicate that Rhode Island casinos have performed very well despite new competitors entering the market. A mandated replacement cycle of 6% of the machines per annum and 2% of machine conversions will place Rhode Island casinos within industry norms for annual replacements and conversions.

The full online system upgrade by inarguably the current industry leader in online lottery systems and the inclusion of an iLottery system also makes this a strong technical proposal.

Price Evaluation

Before comparing the pricing in the contract extension, it is necessary to adjust for the \$25 million that IGT will pay upfront in the first two years, and the cost savings provided by IGT taking over the sales functions for the lottery. Based upon FY2019 traditional lottery sales of \$263.3 million the \$1.25 million per annum the lottery will save equates to a roughly a half a percentage point reduction in fee for traditional lottery sales, effectively reducing it to 4.5%. Assuming lottery sales remain relatively stable (as we expect they will) the \$25 million upfront payment when extended over the twenty years of the contract also equate to almost a half percentage point reduction, for an estimated total of slightly more than 4% of sales.

Traditional Lottery System

Based upon our analysis of pricing for traditional lottery services in other states, we believe that in a competitive bidding scenario Rhode Island could expect to pay somewhere between 3-4% of lottery sales (probably closer to 3% due to Rhode Island's small size), but that would likely not include the lottery sales force which we have established is worth about a half of percentage point in Rhode Island. Thus, for traditional lottery services, the pricing of this contract extension is toward the higher end of what we would expect from a competitive bid, but less than 1% (or approximately \$2.6 million per year) higher.

VLT CMS

Based upon our analysis of comparable jurisdictions, Rhode Island is paying considerably more than its peers for a VLT Central Monitoring System only covering two facilities. We believe, based on our analysis of other CMS fees, that if that system were put out to bid Rhode Island could expect to pay

about 1% of gross gaming revenues, a substantial reduction from the 2.5% contemplated in the contract extension. Based upon FY2019 NTI of \$522.7 million, that 1.5% is over \$7 million a year.

VLT Lease Rates

As shown earlier in this report, the VLT lease rates contemplated within the proposed contract extension are similar to rates paid by other jurisdictions that choose to lease slot machines, although Delaware, for example, is charged less for older machines. Thus, the lease rate contemplated in the contract is a little on the high side but within industry norms for leased machines.

Further Considerations

Instant Tickets

We understand that under the new Master Contract, Rhode Island's prices for instant tickets will be locked in at about \$1m per year, and that IGT will pay for 36 new licensed tickets through 2043. But as we have described in this report the data indicate that by only providing instant tickets from one supplier Rhode Island is not only leaving potential instant sales on the table, that spending is being exported to Massachusetts.

Gambling Policy and the VLT model

When the original Master Contract was signed 17 years ago, Rhode Island casinos (and it's a stretch to call those facilities circa 2003 casinos) were two small (2,654 devices that generated \$314.7 million in gross gaming revenue) VLT only facilities housed in ageing pari-mutuel facilities. In 2020 these casinos have undergone substantial capital investment³⁴ and added table games (that are not and cannot be hooked to central systems) and sports betting. In other words, they have evolved from VLT-only facilities to look and operate very differently today. To the average patron these are casinos in all but name.

The Rhode Island VLT model developed in the 1990s and *de facto* continued with the Master Contract of 2003 may have made sense at the time, but it is important to remember that, in 2020, this is more than just a contract extension. By entering into this contract, the RIGA would also be locking in *gambling policy* for the next 23 years. Now that Rhode Island facilities have evolved to become casinos, before deciding to enter into a new contract that will lock in a **lottery model** for an additional twenty years, the RIGA should consider whether a **casino model** is more appropriate and whether these services are still necessary and/or desirable.

VLT CMS

Absent statutory provisions, which, of course, can be changed by the RIGA with the approval of the Governor: does Rhode Island really need a Central Management System for VLTs? As discussed within this report, most gaming devices in the United States operate without a statewide monitoring and control system. Effective regulation is achieved by unfettered access to privately owned management systems by regulators. For slot route operations like South Dakota, West Virginia, Illinois, etc...with thousands

³⁴ Including a brand new facility in Tiverton.

of outlets paying wins in cash, they are a necessity. But in a state with two casinos and only one operator the security needs and cost to regulate a private CMS are significantly less.

We understand this would likely necessitate a change in Rhode Island law, but if the State of Rhode Island is considering legislation to enter into a twenty year no bid Master Contract. It would seem prudent to explore whether all the services included in that Master Contract are truly necessary in 2020, and worth the expense to Rhode Island taxpayers.

Leasing 100% of Machines

As described in this report, the vast majority of slot machines in North America are purchased, rather than leased at a percentage of gaming revenue.

The math behind this is simple. In FY2019, Rhode Island casinos \$272 and \$277 per machine per day at Tiverton and Twin River. That is approximately \$100,000 per machine per year. Most slot machines or VLTs cost between \$15,000 and \$25,000. Most machines have at least a five-year useful life, and some remain on slot floors for 10 years or more. Thus, it is easy to see why greater than 85% of owners (90% of casino owners) of gaming devices chose to buy rather than lease.

Furthermore, as we have also described within this report, the State of Maryland initially adopted a model similar to Rhode Island (although they still opted to purchase rather than lease many of the machines), but after a few years they decided to get out of the slot lease/owning business entirely.

Finally, as also described in this report, CCA has never recommended to any of the lottery's we have served that a twenty-year contract is a good idea. A ten-year initial contract term, with optional extensions, has been a standard recommendation from CCA for the last 15 years. In 2020, however, we believe that this is even more urgent. The primary reasoning behind a ten-year term is mitigate the impact of a lottery getting caught between technology changes. While it is true that changes in lottery technology tend to be more evolutionary than revolutionary, and many existing systems are approaching 20 with only minor upgrades, that is really about the limit of their useful lives. A ten-year term gives the lottery flexibility to survey the technology of the times and then determine whether a system upgrade is necessary.

Some might suggest that they have essentially the same thing in the new Master Contract by requiring that IGT upgrade the system in ten years' time. Maybe, but you are still locked into one supplier. IGT/GTech has been an industry leader in lottery technology for over 30 years, and we would agree that that is not *likely* to change over the next ten. However, it is still *possible* that IGT could fall behind in new payment systems or other technologies that the Rhode Island Lottery may wish to adopt in the future. It may be a relatively small risk, but one that could have significant implications for Rhode Island and Rhode Island taxpayers.

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Appendix A: Five Year Summary Financials of Relevant U.S. Lotteries

		Arkansas S	tate Lottery 2015	5-2019		
Lottery Sales		2015	2016	2017	2018	2019
T		225 000 612	260 007 742	260 454 561	407 (04 701	407 005 514
Instant Online		335,000,613 73,662,767	360,007,743 95,591,659	368,454,561 80,686,467	407,604,791 92,103,185	407,825,514 107,667,993
Onme		13,002,101	95,391,639	80,080,407	92,103,183	107,007,995
Total		408,663,380	455,599,402	449,141,028	499,707,976	515,493,507
Prize Expense						
Instant		241,758,220	258,461,952	263,190,873	292,489,286	293,635,992
Online		38,708,574	50,485,363	43,238,515	49,406,134	56,240,230
Prize Expense (Total)		280,466,794	308,947,315	306,429,388	341,895,420	349,876,222
Retailer Commissions + Cont	ract cost	43,875,903	45,088,364	44,405,247	50,164,810	52,754,402
Expense Notes		**	**	Gaming Contract Cost	***	**
Expense Noies		listed at: 20,622,707	listed at: 19,384,187	listed at: 19,090,227	listed at: 21,967,841	hsted at: 23,691,567
Vendor Expense	SEE NOTES					
Instant (SGI)		10,467,000	9,481,867	9,297,757	11,288,212	12,747,978
Online (INTRALOT)		10,012,840	9,838,661	9,721,679	10,669,391	10,877,815
Total		20,479,840	19,320,528	19,019,436	21,957,603	23,625,793
Number of Employees	See pic for details	65	65	66	66	64
	Total	5.01%	4.24%	4.23%	4.39%	4.58%
Vendor Expense	Instant	4.33%	3.67%	3.53%	3.86%	3.13%
Percent of Sales						

Notes: The OAL has contracted with two vendors, INTRALOT Corporation (INTRALOT) for its online lottery games services and gaming system and Scientific Games, Inc. (SGI) for its instant ticket lottery games services.

INTRALOT operates the gaming network that consists of approximately 1,900 instant and online retailer ticket terminals and associated software. In accordance with its contract, INTRALOT receives the negotiated fee on the selling price of online tickets sold and on instant ticket settlements. The OAL had an initial seven-year contract with INTRALOT ending in 2016, which included an option for up to three additional renewals in one-year increments, or a portion thereof. During the fiscal year ended June 30, 2015 the OAL exercised the option to extend the INTRALOT contract for a period of three years. During the fiscal year ended June 30, 2017 the OAL amended its contract with INTRALOT. The amendment had an effective date of August 23, 2017 and granted a seven (7) year extension to the contract commencing on the expiration of the current contract date of August 14, 2019. The current contract extension will expire on August 14, 2026. During the fiscal year ended June 30, 2019, INTRALOT was compensated at the rate of 2.11% on all instant and on line sales commencing January 1, 2018.

Total fees paid to INTRALOT and others for all gaming network and related services for the fiscal year ended June 30, 2019 were \$10,877,815.

SGI prints, warehouses, and distributes the instant game tickets to retailers. In accordance with its contract with the OAL, SGI receives the negotiated fee on the selling price of all instant ticket settlements. During the fiscal year ended June 30, 2016 the OAL and SGI executed a third amendment to the contract for an additional seven-year period ending with an expiration date of August 18, 2026. The amended contract sets the SGI fees at 1.30% of instant ticket net sales up to \$360 million during a contract year. The contract year is from August 18, 2018 through August 17, 2019. Should the total net sales of instant tickets exceed \$360 million in a contract year, SGI will receive a one time bonus payment in an amount equivalent to 4.5% of all such incremental sales exceeding \$360 million. Instant ticket sales during the fiscal year ended June 30, did exceed \$360 million during the contract year. During the fiscal year ended June 30, 2019, SGI was compensated \$7,511,813, which represents a rate of 1.84% of instant ticket sales for these services. SGI also maintains the OAL's Points for Prizes program. This program provides merchandise prizes and other awards to participating players based upon tickets registered by the players. In addition, SGI provides other products and services for which the OAL pays various contracted fees.

During the fiscal year ended June 30, 2019 these other SGI fees totaled \$5,236,165 or 1.28 % of instant ticket sales.

Lottery Sales		2014	2015	2016	2017	2018
Instant		\$ 660,230,730 \$	687,966,998 \$	742,295,793 \$	720,624,413 \$	731,923,632
Online ex Keno		309,763,538	338,324,829	321,426,164	297,976,304	304,090,397
Keno		N/A	N/A	12,444,000	72,182,000	86,428,000
Multi-State (Including		145,552,293	120,454,367	157,415,902	128,173,556	149,901,876
Total Sales		1,115,546,561	1,146,746,194	1,233,581,859	1,218,956,273	1,272,343,905
Less sales returns, cancellations a	nd promotions	(3,142,027)	(2,772,750)	(2,812,460)	(2,694,252)	(4,752,622)
Total Operating Revenue		1,112,404,534	1,143,973,444	1,230,769,399	1,216,262,021	1,267,591,283
Prize Expense		668,791,859	707,735,790	760,268,663	756,288,867	792,589,574
Retailer Commissions		62,077,095	64,269,585	68,687,557	67,983,529	70,822,890
Gaming/Online Systems		10,344,624	10,500,353	11,451,530	12,521,393	13,708,496
Prodn. Expenses		6,895,442	6,530,791	7,057,214	6,922,504	8,651,251
Expense Notes	Total cost of sales	\$ 759,564,122 \$	800,237,470 \$	859,864,582 \$	855,782,598 \$	898,547,921
Vendor Expense						
Instant		6,895,442	6,530,791	7,057,214	6,922,504	8,651,251
Online		10,344,624	10,500,353	11,451,530	12,521,393	13,708,496
Other	See notes					
Total		\$ 759,564,122 \$	800,237,470 \$	859,864,582 \$	855,782,598 \$	898,547,921
Vendor Expense Ratios						
Instant		1.04%	0.95%	0.95%	0.96%	1.18%
Online		2.27%	2.29%	2.33%	2.51%	2.54%

Notes: Similar to all Lottery equipment operated by CT retailers, Keno terminals and monitors are leased through Scientific Games, the primary gaming system vendor. The Lottery made upfront payments to the vendor through April 2018, which allows the Lottery to utilize the Keno equipment until the end of the lease term in April 2023.

The Lottery executed a lease for player activated terminals (PATs) in July 2018. The Lottery will make up-front payments to the vendor through December 2018, which allows the Lottery to utilize the PATs until the end of the lease term in April 2023. This contract is coterminous with the gaming system contract.

As of June 30, 2018, and 2017, the Lottery recorded \$3,664,286 and \$2,635,714, respectively, of prepaid expenses related to the lease of the Keno terminals and monitors, of which \$2,892,857 and \$1,864,286 is long term and recorded as other assets in the accompanying statements of net position.

Total lease expense for facilities and equipment was \$2,097,857 and \$2,056,711 for the fiscal years ended June 30, 2018 and 2017, respectively.

Most costs and expenses that comprise total cost of sales vary proportionally with the change in total sales. Prize expense, retailer commissions, gaming systems and production expenses are included in this classification.

Prize expense for the instant ticket portfolio is predetermined since the instant ticket prize structure is developed using certain parameters, including the number and value of winning tickets. Prize expense for online draw games is designed with a specific prize structure, however, prize expense fluctuates due to variable payouts on the selection of winning numbers from random drawings. Total prize expense for the period ending June 30, 2018 amounted to \$792.6 million compared to \$756.3 million in the prior year. The increase is chiefly related to the higher sales revenue.

Retailer commissions totaled \$70.8 million compared to \$68.0 million in the prior year. Retailers earn selling and cashing commissions and are eligible for various incentive compensation throughout the year to promote selected games and activities.

Gaming system and network administration expenses totaled \$13.7 million compared to \$12.5 million in the prior year. Production expenses were \$8.7 million compared to \$6.9 million in the prior year. Production expenses are chiefly related to the design, delivery and distribution of instant tickets.

Marketing and advertising expenses totaled \$12.8 million for fiscal year 2018 compared to \$12.1 million in the prior year. Marketing and advertising expenses are incurred to support the mission of maximizing returns to the General Fund. Marketing and advertising encompass all major media including, television, radio and digital as well as lottery designed point of sale. Operating expenses totaled \$25.7 million for the year ending June 30, 2018, compared to \$24.6 million in the prior year. Operating expenses are mainly comprised of salaries and benefits and other operating expenses.

Nonoperating revenues and expenses are primarily comprised of interest income and interest expense related to the annuity contracts. Annuity contracts provide payments required to meet the obligations of Lottery prize disbursements

D.C. State Lottery 2014-2018											
Lottery Sales		2014	2015	2016	2017	2018					
Instant	\$	40,420,000 \$	32,609,000 \$	51,838,000 \$	50,318,000 \$	40,500,000					
Online (ex. Keno)		153,759,000	157,712,000	154,143,000	148,397,000	160,800,000					
Keno	\$	11,585,000	9,773,000	8,642,000	7,854,000	N/A					
Draw	\$	10,276,000 \$	12,401,000 \$	13,560,000 \$	12,163,000	N/A					
Race2Riches		7,731,000	9,335,000	10,193,000	9,188,000	N/A					
Tap-N-Play		2,545,000	3,066,000	3,367,000	2,975,000	N/A					
Total Sales		216,040,000	212,495,000	228,183,000	218,732,000	201,300,000					
Prize Expense		121,272,000	115,278,000	132,045,000	130,035,000	117,400,000					
Agents' Commissions		14,177,000	13,778,000	14,958,000	14,409,000	13,800,000					
Contractor Fee		8,195,000	6,777,000	7,148,000	6,907,000	6,800,000					
"Contractual Services"			3,768,000	4,128,000	4,368,000	N/A					
Vendor Expense Ratios		4.22%	3.56%	3.47%	3.48%	3.38%					

Delaware State Lottery 2015-2019										
Lottery Sales		2015	2016	2017	2018	2019				
Instant	\$	54,422,554 \$	65,659,766 \$	69,284,712 \$	70,599,375 \$	79,809,999				
Keno		6,700,000	8,000,000	8,200,000	8,700,000	8,600,000				
Table Games		51,455,977	54,010,328	53,117,143	54,629,995	56,611,092				
Sports Lottery		37,857,048	39,398,130	46,114,509	54,747,779	158,630,194				
Other Online		97,168,201	111,940,261	103,140,223	108,366,616	119,673,791				
Draw Games		95,395,052	109,381,171	100,438,292	106,188,593	116,507,746				
iGaming		1,773,149	2,559,090	2,701,931	2,178,023	3,166,045				
Video Lottery, net		357,492,447	360,771,884	352,834,117	353,776,920	367,399,349				
Total		598,396,227	631,780,369	624,490,704	642,120,685	782,124,425				
Prize Expense		108,964,095	126,503,755	134,955,648	136,506,526	244,362,133				
VLT Commissions		150,989,347	152,478,747	148,997,809	149,150,781	156,338,344				
Instant and Draw Commissions		9,675,383	11,399,240	10,503,135	10,764,400	12,178,982				
Sports Lottery Commissions		3,324,221	2,792,770	2,153,872	3,913,713	6,699,434				
Table Games Commissions		34,012,401	35,700,827	35,110,431	36,110,427	45,288,873				
Expense Notes										
Vendor Expense "Vendor Fees and Costs"		40,301,237	41,815,118	39,826,424	43,009,044	47,448,710				
Instant			3,678,136	3,880,974	3,975,379	4,923,456				
Draw Games			6,277,183	5,783,694	6,155,206	6,578,755				
iGaming Video, net			1,956,837	1,805,691	1,782,125	2,101,162				
VLT			27,593,315	27,132,325	27,253,703	29,205,706				
Sports Lottery			2,309,647	1,223,740	3,842,631	4,639,631				
Total	\$	- \$	41,815,118 \$	39,826,424 \$	43,009,044 \$	47,448,710				
Number of Employees		59	59	58	55	52				
Vendor Expense Ratios				6.3%	6.7%	6.1%				
Instant			5.60%	5.60%	5.63%	6.17%				
Draw Games			5.35%	5.32%	5.36%	5.26%				
VLT			7.65%	7.69%	7.70%	7.95%				
iGaming Video, net			76.47%	66.83%	81.82%	66.37%				

Kansas State Lottery 2014-2018											
Lottery Sales	2014	2015	2016	2017	2018						
Instant \$	122,800,000 \$	133,700,000 \$	143,400,000 \$	142,600,000 \$	150,000,000						
Online	92,608,290	85,525,840	102,517,364	91,530,943	97,348,805						
Keno	19,100,000	18,200,000	16,000,000	15,500,000	14,200,000						
Pull Tabs	11,200,000	12,600,000	10,100,000	8,400,000	7,400,000						
Net Game Revenues	245,708,290	250,025,840	272,017,364	258,030,943	268,948,805						
Expanded Lottery Rev	353,022,317	365,026,301	364,371,095	371,117,198	404,508,001						
Total Op Rev	603,111,624	619,826,003	646,495,698	633,855,516	678,179,554						
Prize Expense	138,741,873	144,914,052	157,300,767	149,709,855	157,890,979						
Casino operator management fee	257,451,264	266,469,200	265,926,380	270,915,554	295,290,841						
Retailer commissions	14,435,510	14,806,722	16,017,493	15,325,980	15,881,181						
Central gaming and loyalty systems	7,632,955	7,216,522	8,087,330	7,889,594	8,665,462						
On-line games service bureau	5,647,024	5,107,939	6,037,953	5,794,571							
On-line service bureau - expanded lottery	1,985,931	2,108,583	2,049,377	2,095,023	2,196,628						
Cost of instant tickets	3,368,506	3,028,077	3,265,526	3,536,928	3,317,805						
Expense Notes											
Vendor Expense											
Instant + Online See notes	5,647,024	5,107,939	6,037,953	5,319,904	5,756,834						
Other (expanded lottery)	1,985,931	2,108,583	2,049,377	2,095,023	2,196,628						
Total \$	421,630,108 \$	436,434,573 \$	450,597,496 \$	455,267,505 \$	491,196,358						

Number of Employees 84

Vendor Expense Ratios					
Online	4.59%	4.39%	4.69%	4.61%	4.84%
Instant	2.74%	2.26%	2.28%	2.48%	2.21%
Expanded lottery	0.56%	0.58%	0.56%	0.56%	0.54%

Notes:

The Lottery has contracted with a service bureau which provides computer services for draw games and instant-win validation. The contract takes effect on July 29, 2018 and the duration of the current contract is through June 30, 2028. Future fees are based on a fixed annual fee of \$1,040,000 plus 5.2463% percent of gross gaming revenues, defined as net game revenues less game prizes.

The Lottery entered into a contract with a service bureau which provides service for electronic gaming machines in relation to the Expanded Lottery activities. The contract provides that the Lottery pay a fee of net electronic gaming machine income to the service bureau, and the duration of the contract is through December 2019. Fees were \$2,196,628 and \$2,095,023 for the years ended June 30, 2018 and 2017, respectively. Future fees are based on 1.2 percent of net electronic gaming machine revenue up to \$80 million, 0.8 percent of net electronic gaming machine revenue above \$80 million up to \$160 million, and 0.3 percent of net electronic gaming machine revenue above \$160 million.

	Iowa Lotte	er	y 2015-201	9			
Lottery Sales	2015		2016		2017	2018	2019
Instant-scratch ticket sales	\$ 211,986,968 \$	3	233,681,883	\$	237,617,703	\$ 244,260,964	\$ 250,642,094
Instaplay sales					5,820,274	9,733,769	11,876,560
Pick 3 sales	7,046,335		7,376,766		7,318,686	7,705,163	7,871,469
Pick 4 sales	3,231,397		3,554,719		3,946,273	4,341,103	4,292,190
Powerball sales	52,231,108		74,851,133		54,292,902	58,471,047	54,833,068
Mega Millions sales	17,980,367		16,401,018		14,957,109	21,293,740	36,322,749
Hot Lotto sales	11,111,717		8,827,600		8,210,714	3,761,425	
All or Nothing sales	4,542,846		3,989,479		3,186,443		
Lucky for Life sales	591,605		3,154,994		5,599,966	5,600,490	5,427,678
Lotto America sales						4,872,494	8,753,137
Pull-tab sales	16,045,073		15,073,332		11,292,740	10,916,692	10,876,605
Application fees	3,800		4,175		3,600	3,725	3,775
Prizes:							
Instant-scratch ticket	137,660,011		151,760,771		155,043,947	160,144,268	166,890,489
Instaplay	4,164,551				3,781,706	6,351,026	8,255,638
Pick 3	1,993,339		4,369,699		4,261,970	4,567,778	4,670,681
Pick 4	25,386,810		2,082,846		2,367,036	2,519,312	2,553,524
Powerball	8,593,263		36,708,283		25,876,220	28,480,980	25,454,010
Mega Millions	5,351,407		7,975,529		7,351,575	10,764,359	18,473,201
Hot Lotto	2,684,292		4,223,018		4,000,053	1,782,452	
All or Nothing	626,847		2,363,459		1,882,220		
Lucky for Life			2,525,899		3,521,940	3,305,691	3,111,848
Lotto America						2,436,247	4,300,353
Pull-tab	10,028,418		9,422,428		7,056,494	6,826,208	6,805,266
Promotional	128,699		166,862		224,943	115,750	109,753
VIP Club	264,651		168,607		252,465	197,001	1,315,880
Total prizes	196,882,288		221,767,401		215,620,569	227,491,072	241,940,643
Retailer compensation	20,977,399		24,560,885		22,915,600	24,213,812	25,447,739
Advertising production and media purchases	6,766,994		6,821,537		6,591,777	7,162,018	7,276,923
Retailer lottery system/terminal communications	6,753,929		7,942,965		7,408,978	8,267,116	6,459,529
Instant/pull-tab ticket expense	3,890,273		3,259,394		3,272,386	3,198,940	3,301,724
Vending machines & maintenance/ticket dispensers	179,352		820,542		1,384,719	525,394	433,771
Courier delivery of tickets	572,194		563,738		594,508	612,120	616,718
Vendor Expense Ratios							
Online and Instant (% of Sales)	2.08%		2.16%		2.14%	2.29%	1.70%
Instant/pull tab ticket ITVM (% of Sales)	2.0%		1.9%		2.1%	1.7%	1.7%

Maine State Lottery 2014-2018												
Lottery Sales		2014	2015	2016	2017	2018						
Instant	\$	170,845,635 \$	199,504,322 \$	210,495,548 \$	208,020,354 \$	223,524,517						
Less Heritage Fund		2,021,379	2,400,612	2,291,833	1,542,308	2,542,027						
Instant (Adj)		168,824,256	197,103,710	208,203,715	206,478,046	220,982,490						
Draw Games		59,111,059	53,567,721	61,843,936	57,927,401	64,535,479						
Fast Play		N/A	N/A	N/A	N/A	6,073,697						
Total Ticket Sales (Less Heritage Fund)		245,708,290	250,671,431	270,047,651	264,405,447	291,591,666						
Prize Expense		146,850,884	165,188,385	176,786,790	171,766,258	192,535,536						
Agent commissions and bonuses		14,435,510	16,701,108	17,911,150	17,629,356	19,247,995						
Vendor Expense		8,724,463	8,768,146	9,404,464	9,309,746	10,267,549						
Instant		6,455,864	6,894,497	7,327,754	7,270,093	7,781,355						
Online		2,268,599	1,873,649	2,076,710	2,039,653	2,272,322						
Fast Play		N/A	N/A	N/A	N/A	213,872						
Total	\$	161,286,394 \$	181,889,493 \$	194,697,940 \$	208,015,106 \$	232,318,629						
Vendor Expense Ratios Percent of Sales												
Instant		3.82%	3.50%	3.52%	3.52%	3.52%						
Online		3.84%	3.50%	3.52%	3.52%	3.52%						
Fast Play		N/A	N/A	N/A	N/A	3.52%						

Lottery Sales		2015	2016		2017	2018	201
•	ф	546.052.764	611 206 127	ф	676.752.574	750 000 512	010 406 011
Instant	\$	546,053,764 \$	611,286,137	\$	676,752,574 \$		812,426,311
Daily Draw games		545,723,393	548,878,901		556,086,319	556,913,301	583,595,693
Monitor games		457,655,976	478,647,528		483,643,007	483,994,276	498,058,433
Jackpot games		207,620,879	259,796,495		206,690,778	241,877,131	293,176,999
ITLMs		3,812,016	6,934,191		8,372,989	9,121,117	9,651,06
Total net sales		1,760,866,028	1,905,543,252		1,931,545,667	2,042,794,337	2,196,908,499
Gaming Revenue — Gross Terminal Revenue		681,822,742	741,694,172		885,867,966	1,046,676,783	1,125,214,91
Gaming Revenue — State Grant		66,263,057	20,274,795		20,706,322	7,474,980	6,715,630
Gaming Revenue — Table Games		356,401,074	402,278,788		535,074,397	632,289,627	635,193,66
Gaming Revenue — Facility Applicants		2,812,897	1,921,206		2,957,020	2,209,398	2,055,87
Gaming Machine Assessment		3,967,980	3,844,625		4,649,746	5,278,854	5,296,22
ITLM Lease Revenue		1,587,896	2,894,330		3,494,887	3,807,152	4,028,353
Total Op Rev		2,873,721,674	3,078,451,168		3,384,296,005	3,740,531,131	3,975,413,170
Prize Expense		1,051,485,747	1,133,301,463		1,196,511,295	1,248,722,984	1,357,478,258
Retailer commissions		128,596,268	141,157,005		145,883,312	153,725,963	165,508,68
Casino commissions		538,999,870	626,102,299		819,389,044	996,857,938	1,036,965,94
Gaming vendor and data processing fees		23,522,186	27,744,841		29,026,085	30,748,701	39,504,95
Instant ticket printing and delivery		6,167,461	5,997,088		7,464,342	6,637,518	7,327,339
Total Cost of Sales		1,748,771,532	1,934,302,696		2,198,274,078	2,436,693,104	2,606,785,182
Expense Notes							
Vendor Expense							
Instant ticket printing and delivery		1.13%	0.98%		1.10%	0.88%	0.90
Gaming vendor and data processing fees		1.94%	2.14%		2.31%	2.38%	2.859

Nebraska State Lottery 2015-2019								
Lottery Sales		2015	2016	2017	2018	2019		
Sales Less Sales Returns	\$	162,235,615 \$ (2,267,666)	181,909,582 \$ 2,436,827	175,967,645 \$ (2,148,539)	185,242,484 \$ (1,874,392)	194,753,203 (2,571,213)		
Total Op Rev		159,967,949	184,346,409	173,819,106	183,368,092	192,181,990		
Prize Expense Commissions		94,696,026 10,224,556	104,644,944 11,400,607	101,901,594 11,127,474	106,634,524 11,838,749	112,456,626 12,404,885		
Contractual Services Expense		10,980,956	12,148,324	11,971,020	12,319,559	12,969,878		
Vendor Expense		10,980,956	12,148,324	11,971,020	12,319,559	12,969,878		
Total								
Vendor Expense Ratios Ptotal	ercent of Sales	6.77%	6.68%	6.80%	6.65%	6.66%		

	New H	Iampshire State l	Lottery 2015-201	8	
Lottery Sales		2015	2016	2017	2018
Instant	\$	195,292,751 \$	218,037,410 \$	223,368,115 \$	238,866,572
Multi-State online games	\$	51,693,099	56,510,087	46,482,536	55,050,102
Tri-State online games	\$	22,264,887	23,499,627	23,984,950	25,033,219
Lucky for Life	\$	6,360,538	5,294,823	5,319,096	5,444,744
Total Online	\$	80,318,524 \$	85,304,537 \$	75,786,582 \$	85,528,065
Keno		N/A	N/A	N/A	8,357,389
Bingo/Lucky 7/Racing & Charitable Ga	ming		5,038,351	4,891,729	5,010,203
Total Op Rev from lottery		275,611,275	303,341,947	299,154,697	332,752,026
Prize Expense		171,846,304	192,963,388	191,778,403	211,533,505
Commissions		15,822,516	18,057,048	17,203,877	19,908,681
Cost of instant tickets		1,853,376	2,517,242	2,680,952	2,647,866
Vendor Expense		5,145,260	5,576,320	5,575,258	5,792,012
Total	\$	194,667,456 \$	219,113,998 \$	217,238,490 \$	237,234,198
Number of Employees			68	64	66
Online Vendor Expense Percent of	Sales	1.9%	1.8%	1.9%	1.7%
Cost of instant tickets		0.9%	1.2%	1.2%	1.1%

	New York Lottery 2014-2018						
		2014	2015	2016	2017	2018	
Draw Games							
Sales	\$	3,028,984 \$	3,170,022 \$	3,212,258 \$	3,433,755 \$	3,384,725	
Prizes		1,544,341	1,582,169	1,602,202	1,725,238	1,685,102	
Percent of sales		51%	50%	50%	50%	50%	
Retailer commissions		180,685	189,204	191,876	205,157	202,253	
Percent of sales		6.0%	6.0%	6.0%	6.0%	6.0%	
Contractor fees		38,691	39,224	30,260	33,392	34,178	
Percent of sales		1.3%	1.2%	0.9%	1.0%	1.0%	
Instant GamesSales		3,666,087	3,611,046	3,546,391	3,578,934	3,724,194	
Prizes		2,459,439	2,369,845	2,365,847	2,405,555	2,534,890	
Percent of sales		67.0%	66.0%	67.0%	67.0%	68.0%	
Retailer commissions		219,974	216,664	212,781	214,736	223,449	
Percent of sales		6.0%	6.0%	6.0%	6.0%	6.0%	
Contractor fees		27,386	27,505	32,466	35,231	40,734	
Percent of sales		0.7%	0.8%	0.9%	1.0%	1.1%	
Ticket and related costs		32,755	28,575	26,145	25,194	21,771	
Percent of sales		0.9%	0.8%	0.7%	0.7%	0.6%	
VideoSales (net machine income)		965,074	1,037,248	1,109,562	1,426,784	1,825,369	
Facility commissions		438,653	469,562	477,266	617,065	810,911	
Percent of sales		45.0%	45.0%	43.0%	43.0%	44.0%	
Contractor fees		60,402	66,858	80,528	105,081	134,409	
Percent of sales		6.3%	6.4%	7.3%	7.4%	7.4%	

Oklahoma Lottery 2014-2018

	2014	2015	2016	2017	2018
Revenues:					
Scratcher games	85,876,010	81,600,192	78,559,351	67,988,294	127,627,940
Online games	9,895,762	11,503,830	10,747,860	10,485,163	11,966,707
Mega Millions game	27,674,261	22,099,568	19,470,982	18,238,718	22,786,249
Hot Lotto Game	8,858,804	9,917,136	7,801,035	8,450,755	9,179,354
PowerBall game	58,822,255	46,512,750	73,042,366	46,339,573	49,550,146
Retailer application fees	106,000	105,245	105,390	100,595	11,740
Other	7,250	7,975	6,700	4,550	5,691
Total Revenues	191,240,342	171,746,696	189,733,684	151,607,648	221,127,827
Total Prize Expense	97,496,555	87,782,927	95,517,232	73,342,027	129,610,748
Direct Costs:					
Commissions and incentives to retailers	12,647,675	11,425,710	12,421,019	10,042,940	14,039,604
Instant and on-line costs	7,798,373	7,271,417	7,985,458	8,665,829	10,819,307
Total Direct costs	20,446,048	18,697,127	20,406,477	18,708,769	24,858,911
Vendor Expenses (% of sales)	4.1%	4.2%	4.2%	5.7%	4.9%

Lottery Sales	2014	2015	2016	2017	201
Instant	\$ 105,561,992 \$	103,276,392 \$	102,541,884 \$	94,368,751 \$	99,194,790
Online (ex. Travel Keno)	78,018,706	71,619,788	81,523,107	68,298,961	74,200,908
Travel Keno	5,049,843	5,103,370	4,136,493	3,811,709	3,639,022
Total Online	83,068,549	76,723,158	85,659,600	72,110,670	77,839,930
Video					
Racetrack	590,918,374	557,802,811	537,729,110	521,317,604	504,294,811
Limited	377,222,264	373,220,741	360,814,338	347,555,459	368,067,327
Video (net of prizes)	4,440,596	4,070,270	4,486,215	3,739,067	4,845,200
Table Games	50,464,934	46,928,173	43,545,330	38,957,889	35,152,441
Total Sales	1,211,676,709	1,162,021,545	1,134,776,477	1,078,049,440	1,089,394,499
Prize Expense	111,761,267	106,475,947	110,827,487	98,186,374	105,195,719
Commissions	559,742,475	505,210,692	487,229,442	469,373,411	471,387,603
Vendor Expense					
"Fees and Costs"	8,044,000	7,456,000	8,116,000	6,915,000	7,958,000
Total	\$ 8,044,000 \$	7,456,000 \$	8,116,000 \$	6,915,000 \$	7,958,000
Vendor Expense R. Percent of Sales					
VLT	4.38%	4.26%	4.41%	4.25%	4.59%

Vermont State Lottery 2014-2018								
Lottery Sales		2014	2015	2016	2017	2018		
Instant Draw Games (Plus fast play)	\$	75,972,763 \$ 26,336,695	85,510,664 \$ 26,244,217	93,242,178 \$ 31,019,661 *	96,248,375 \$ 26,121,688	101,999,595 30,420,405		
Total Sales		102,309,458	111,754,881	124,261,839	122,370,063	132,420,000		
Prize Expense		65,029,357	72,710,332	80,140,728	79,648,891	87,436,351		
Commissions		6,082,393	6,893,939	7,746,050	7,491,647	8,114,578		
Lottery Tickets		1,186,603	1,591,944	1,683,440	1,681,752	1,581,225		
Tri-State Expenses		1,155,086	968,757	1,241,122	918,520	957,901		
Vendor Expense								
Instant - Facilities management for	èe	2,494,537	2,866,573	3,114,465	3,430,067	3,680,995		
Online - Facilities management fo	ee	489,978	483,853	655,874	548,799	492,698		
Total	S	2,984,515 \$	3,350,426 \$	3,770,339 \$	3,978,866 \$	4,173,693		
Vendor Expense Ratios Per	cent of Sales	2.92%	3.00%	3.03%	3.25%	3.15%		
Instant		4.85%	5.21%	5.15%	5.31%	5.16%		
Online		1.9%	1.84%	2.11%	2.10%	1.62%		
Number of Employees		21	21	21	21	21		