



GAMING IMPACT STUDY:

Analysis of Impacts of Licensing and Regulating Electronic Games of Skill In the District of Columbia

Prepared for the Government of the District of Columbia,
Office of the Chief Financial Officer,
Office of Lottery and Gaming
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Executive Summary

On February 27, 2020, District of Columbia Mayor Muriel Bowser signed emergency temporary legislation allowing for the licensing of electronic games of skill by the Alcoholic Beverage Regulation Administration (“ABRA”). The temporary legislation includes the following provisions:

- Restricting devices to manufacturers with an on-site consumption permit, restaurants, nightclubs, taverns, hotels, and multipurpose facilities.
- Requiring licensees to secure a Games of Skill Endorsement.
- Prohibiting persons under 18 years of age from playing.
- Capping the total number of devices to three per establishment.
- Requiring legal guidance from the District’s Office of the Attorney General stating the terminal or device is a legally permissible game of skill.
- Requiring security cameras and the posting of warning signs.¹

Spectrum reviewed draft legislation to permanently regulate games of skill, and we found that the draft language contains many of the same requirements as the temporary authorization. However, it shifts licensing and oversight from ABRA to the District’s Office of Lottery and Gaming (“Lottery”). In the draft bill, there are at least three types of licenses that will be issued by the Lottery: manufacturer, distributor, and location licenses.

One version of the bill also has a supplier license category, but it is not clear if that will be included in the final version. Licensed locations will be limited to on-site consumption-permit establishments. Establishments interested in adding a game of skill device on their premises must be an ABRA on-premises consumption license holder and apply for a Games of Skill Endorsement by submitting a Games of Skill Substantial Change Application to ABRA. All applications are subject to ABC Board approval. ABRA must first issue a Game of Skill Endorsement to a location before the location can apply to offer a game of skill under a license issued by the Lottery.

The District of Columbia Office of Lottery and Gaming (“Lottery”) engaged Spectrum Gaming Group (“Spectrum,” “we” or “our”) to provide an independent analysis of impacts of licensing and regulating electronic games of skill in the District. The Lottery directed Spectrum to provide a report that includes the following:

1. An estimate of the existing presence of unregulated electronic games of skill machines operating within the District.
2. A projection of potential revenue to be generated from licensing and regulating electronic games of skill machines in the District of Columbia.

¹ Alcoholic Beverage Regulation Administration, “Electronic Games of Skill.” <https://abra.dc.gov/page/electronic-games-skill>

3. An assessment detailing the Lottery’s staffing and administrative needs to undertake the regulation of electronic games of skill machines, and the estimated costs and budget impact associated with staffing and administrative needs.

Based on Interviews with DC stakeholders and supporting documentation, it does not appear that these games of skill currently have a significant presence in the District. However, the projected presence of 9,000 retail games in neighboring Virginia supports the conclusion that if this unregulated gaming is not present in the District, it will be soon.

Based on these numbers and the proliferation of these games in other states, establishing an effective and rigorous regulatory scheme to control retail gaming in the District not only has a clear revenue benefit but can ameliorate the negative effects of unregulated gaming. “Regulated gaming” as envisioned in this report is hardly an empty term. The regulations must be effective and rigorous, with strict controls in place to address a range of policy considerations, with special emphases on ensuring that all approved locations adhere to a complete range of requirements, from responsible gaming practices to anti-money laundering controls.

Under-regulated gaming is effectively unregulated gaming, and would by definition undermine public policy in the District of Columbia.

Spectrum examined the experience in several states. Georgia – which, like the District of Columbia, does not offer casino gaming – provides the most effective basis for examination. Spectrum believes the Georgia Lottery’s experience with coin-operated amusement machines (“COAM”) provides the best benchmark for DC and its proposed legislation and, as such, our projections are based on the Georgia experience over the last several fiscal years.

In Georgia, COAM locations are primarily convenience stores because the Georgia statute prohibits retailers from using alcohol, tobacco, or firearms as prizes.² The total number of convenience stores in Georgia was 6,698 in 2019.³ In Georgia, 75 percent of all convenience stores operate COAMs; i.e., approximately 5,000 out of a total of 6,698 convenience stores. In Georgia, the number of retailers has remained fairly steady, but there has been a sudden drop in the number of machines. In discussion with the Georgia Lottery, this reduction may be due to the number of approved locations remaining static while underperforming machines in certain locations have been removed as well as stricter enforcement of COAM rules that led machines being taken out of service.⁴

In the DC draft legislation, eligible locations are restricted to establishments that permit customers to consume alcohol on the premises; e.g., bars and restaurants. The total potential pool of locations is 1,513. Through the first week of the temporary legislation, ABRA has received 39 applications for 117

² Interview with Kurt Freedlund, former General Counsel, Georgia Lottery Corporation, March 16, 2020.

³ “US Convenience-Store Counts Dip, Gary Lindenberg, February 7, 2019. <https://www.cspdailynews.com/mergers-acquisitions/us-convenience-store-count-dips>

⁴ Interview with Julie Barker, General Counsel, Georgia Lottery COAM Division, March 3, 2020.

machines.⁵ If the District receives twice as many applications in a month, the District can expect to receive 78 applications for 234 machines. If applications were received at the same rate per month for the first year, then the District would receive 936 applications in Year 1, representing 2,808 machines, assuming each establishment requested three machines per location.

The District and its representatives have made clear from their experience that many of the potential franchises that could offer skill-based gaming have expressed qualms and may not elect to participate. By way of example, some higher-end restaurants and others have raised questions as to whether the demographics of future players on such devices represent their target demographic, or whether the presence of such machines and players may alter the image and brand of such establishments, or take up space that could otherwise be allocated to more profitable spending patterns.

That is a qualitative assessment that and does not lend itself to empirical data. Nonetheless, it is a real concern that we are incorporating into our modeling to reduce the number of potential establishments in an effort to develop a conservative, more achievable scenario.

The 936 locations in Year 1 noted above is approximately 60 percent of the total eligible locations that could operate games of skill, leaving 40 percent of locations that would elect not to participate. A 60-40 ratio would generally meet the standards for conservative projections. However, based on the actual experience of lottery professionals who have met with potential establishments, we have elected to further reduce the ratio to a more conservative, achievable result.

With that methodology in mind when reviewing the types of on-premises retail establishments, the 1,513 total number of locations can be categorized in the three types of establishments:⁶

1. Taverns: 399
2. Restaurants: 903
3. Other (hotels, multipurpose facilities, clubs): 211

Factoring in the District's qualitative assessment of a lower level of interest in participating, Spectrum applied a different rate of participation for each category above to reduce our estimate of the number of locations that would operate games of skill in the District. As taverns offer more of a social setting that would lead to a higher participation level; we believe the 75 percent participation rate as experienced in Georgia can be fairly applied to the Tavern category. Based on discussions with the District representatives, the remaining two categories of establishments can be expected to have a far lower level of interest. In calculating the lower estimate, a 20 percent participation rate will be applied to the Restaurant category and a 5 percent participation rate will apply to the Other category:

1. Taverns: 299
2. Restaurants: 180
3. Other: 10

In this lower estimate, a total of 489 establishments would participate.

⁵ Interview with Fred Moosally, Director of ABRA, February 27, 2020, and March 5, 2020.

⁶ Untitled ABRA spreadsheet.

Accordingly, in projecting revenues and costs, this report will provide a high-low range based on 936 and 489 locations participating. The difference in the number of machines between the high and low figures is 2,808 and 1,467.

Spectrum recommends that, given the uncertainty about the level of interest in games of skill in the District and the lack of available data from other jurisdictions (limited to Georgia), that the District employ the lower, more conservative and achievable estimate for planning purposes.

Despite a decline in the number of machines in Georgia, the overall reported revenue has steadily climbed, which means the rate of play has increased. Georgia is in its fourth full fiscal year of centralized monitoring. Based on this four-year experience, DC can expect to experience the same progression of number of retailers, number of machines, rate of play, and monitoring revenue to the District. Beyond four years, there are no empirical data to predict if this steady climb in revenue will continue or eventually level off.

Based on the Georgia annual per machine average of \$1,844 in tax revenue in FY 2017, each machine would return to the District \$153 in revenue per month. This figure is based on the 9 percent tax Georgia applies to net terminal revenue in FY 2019. The Georgia tax rate increased to 10 percent on July 1, 2019.⁷ In Georgia, similar to the DC draft legislation, the tax rate is applied to net terminal income (i.e., gross gaming revenue,⁸ or “GGR”). In applying the 9 percent tax rate to the annual tax revenue per machine in Georgia, we can determine the total GGR per machine as \$26,343 per year. In applying the Georgia example to the District, we can use the total GGR per machine as the basis for the high estimate described above. We note that the DC tax rate under the draft legislation is 10 percent of net terminal income.

Once DC has successfully processed all expected applications after one year, the projections for revenue under the high and low scenarios are as follows:

1. High estimate:
 - a. 936 locations
 - b. 2,808 machines, assuming three machines per location.
 - c. \$73.9 million per year in GGR at \$26,343 per machine.
2. Low estimate:
 - a. 489 locations
 - b. 1,467 machines, assuming three machines per location
 - c. \$38.9 million per year in GGR at \$26,343 per machine

There are differences between the Georgia statute and the DC draft legislation, notably regarding the type of locations eligible to operate games and skill and regarding the limitation on the types of prizes that can be offered players. The Georgia statute prohibits retailers from offering cash, alcohol, tobacco, firearms or lottery tickets if the location is not a licensed lottery retailer.⁹ In the DC draft legislation, cash

⁷ Georgia Lottery Corporation Financial Statement FY 2019.

⁸ GGR in this case is the same concept as net terminal income under the proposed legislation; it is amount wagered/played minus player winnings/prizes.

⁹ OCGA c. 50-27-70(b)(4).

prizes are available to players at the location. In Georgia, many COAM players congregate at the locations to socialize with friends over coffee and spend significant time playing the COAMs.

Based on Spectrum’s experience, the differences in the availability of cash prizes in the DC draft legislation and the prohibition of the same in Georgia would support the conclusion that games that offer a cash option generate greater play from players. For example, lottery players who participate in lottery games that offer merchandise prizes – e.g., trips and cars – have shown the preference for cash prizes in lieu of merchandise. This factor would support the premises that these games could receive greater play per machine in the District where cash prizes are available. In any event, the Georgia per machine GGR is applicable to this analysis and may in fact be conservative.

Based on the high and low projections described above, the District could realize approximately \$3.9 million in tax revenue in the low estimate and \$7.0 million in the high estimate upon full implementation. This amount would be phased in over time, as the approval and activation process moves forward.

The first significant hurdle will be to procure and launch the process with a centralized monitoring system. Based on conversations with current and past Georgia Lottery staff, this was the most significant development in maximizing revenues from its COAM program. Prior to centralized monitoring, terminal revenues were underreported. In reviewing the Georgia Lottery Financial Statements, for FY 2015 and FY 2014, terminal revenues were approximately 45 percent and 40 percent, respectively, of the terminal revenues in FY 2016.

Additionally, during the first year, the number of active, licensed locations will steadily increase, so revenue is projected to increase monthly during the first year. The figures below show the GGR for the first month of operations under both the high and low estimates. In Month 2, the number of machines doubles if the District is able to process the same number of applications every month. In the high estimate, the number of machines would increase by 234 machines per month, based on 78 applications each month. For the low estimate, the number machines in Month 1 would be 147 machines then increase by 120 machines per month for the first 12 months.

High Estimate:

- **Month 1:** 234 machines, projected GGR of \$513,688; 10 percent tax = \$51,368
- **Month 2:** 468 machines, projected GGR of 2 \$1,027,260; 10 percent tax = \$102,726.

Low Estimate:

- **Month 1:** 147 machines, projected GGR of \$322,665; 10 percent tax = \$32,266.
- **Month 2:** 267 machines, projected GGR of 2 \$586,065; 10 percent tax = \$58,606.

This assumes that each month the same average number of applications for three machines per location are received.

Based on the projected number of licenses by the end of Year 1, the potential licensing revenue for each scenario is projected as follows:

1. **High estimate, location licenses Year 1:** 936, \$300 license fee annually, \$280,800

2. **Low estimate, location licenses Year 1:** 489, \$300 license fee annually, \$146,700
3. **Manufacturer/Distributor licenses Year 1:** 20 licensees in Year 1, increasing by 10 in Year 2
 - \$10,000 fee for initial \$5,000 for renewal
 - Year 1: \$200,000
 - Year 2: \$200,000
 - Year 3: \$150,000 (assuming no additional licensees).

With respect to the Manufacturer and Distributor licenses, this license covers not only the manufacturers of these games, which are limited, but also companies that own the machines or distribute machines to retail locations. In Georgia, the vast number of the 182 licenses in this category are companies that purchase the machines from the manufacturer and enter into agreements with retail locations. Of these 182 licenses, it is estimated that less than 20 percent of the licensees own approximately 75 percent of all the machines.¹⁰ In the District, Spectrum estimates that 20 manufacturers and owners of these machines will apply for a licenses, with another 10 applying in Year 2.

Under the proposed legislation, machine fees are \$100 per machine. The machine fees are projected to be \$280,800 based on a projected 2,808 machines at 936 locations and \$146,700 based on a projected 1,467 machines in 489 locations.

ABRA would be required to issue a license endorsement to allow an establishment to operate a game of skill. This is in addition to a location license. Based on a projected 936 licenses, the ABRA fee is projected to be \$187,200 at full implementation and \$97,800 based on 489 locations.

The potential costs of regulating games of skill under the proposed legislation are as follows:

- Following a competitive bid process, Intralot was awarded a 10-year contract in Georgia with a fixed rate for each of the 10 years at 1.2489 percent of net daily revenues generated by COAM. This rate will not change during term of contract. The District should plan on paying minimum rate that is equivalent to Georgia but with the understanding that technology providers charge higher rates when providing a similar service to a smaller market. This service would be awarded after a competitive bid and any increased rates it may incur is difficult to quantify.
- **Staffing:** The Lottery will perform the licensing function in its Regulation and Oversight department. Currently, this department has one licensing staff member. The Georgia Lottery COAM Division did not add staff to its licensing function when it began regulating COAMs. The Regulation and Oversight department currently has one dedicated licensing staff member and two investigators who assist in processing applications. Spectrum recommends that, similar to Georgia, the District use current staff in Year 1 to process 936 applications to realize revenue in a timely fashion. In Year 2, the District should assess the workload in this department due the implementation of sports betting and the possible regulation of games of skill to determine if staffing additions are necessary to process license applications.
- **Investigations:** Currently, Georgia has 12 field investigators and two supervisors to inspect 5,000 locations for compliance. This equates to 416 locations per field investigator. The

¹⁰ Interview with Kurt Freedlund, former General Counsel, Georgia Lottery, March 30, 2020.

field investigators in Georgia perform both investigative and compliance functions. The Regulation and Oversight department has two investigators and a one compliance officer currently staffed. Given that two investigators in the department have roles in the licensing function, one of the unfilled positions for a compliance staff member should be filling with a potential for 936 locations in Year 1. This addition would allow the District to match Georgia’s 416 locations per field investigator.

- **Administrative Appeals:** Georgia’s investigators issue “a few thousand” citations per year. The DC Lottery uses the same administrative appeal process as COAM. The COAM Division has two regular hearings per month to address citations. The DC Lottery’s legal department will need to explore its process to determine costs to process an estimated 700 citations per year.
- **Testing:** The proposed statute has significant testing requirements for any game a manufacturer seeks to introduce in the District. Specifically, the testing function will determine if a game is a game of skill in compliance with the requirements of the statute. The proposed statute requires the Lottery to issue a procurement for a testing company. The legislation states that applicants shall pay the cost and fees of the testing service. These fees need to be assessed so that this cost- neutral to the District. An alternative method for testing is requiring manufacturers deal directly with an approved testing company, to test proposed machines and certify the games compliance to the District. All fees would be paid by the manufacturer directly to the District-approved testing company.
- **Miscellaneous Costs:** The District will need to quantify the costs of conducting criminal background checks through its current vendor on a potential of license applicants (between 489 and 936 applicants) across all license categories. The District will also need to cost the registration stickers for all machines at full implementation.

Contents

EXECUTIVE SUMMARY II

INTRODUCTION1

 A. METHODOLOGY..... 2

 B. OVERVIEW OF GAMES OF SKILL/DISTRIBUTED GAMING..... 2

I. ESTIMATING PRESENCE OF ELECTRONIC SKILL GAMES IN DC7

II. PROJECTED POTENTIAL REVENUE FROM REGULATED GAMES.....9

 A. LICENSING 14

 Summary of Revenue Streams 15

III. ASSESSMENT OF LOTTERY’S STAFFING, ADMINISTRATIVE NEEDS.....17

 A. IMPACT ON STAFFING 17

 B. CENTRAL MONITORING SYSTEM 19

 C. TESTING 19

 D. MISCELLANEOUS COSTS 20

 E. POTENTIAL IMPACT ON LOTTERY AND SPORTS BETTING 20

 F. POLICY CONSIDERATIONS..... 21

ABOUT THIS REPORT23

Figures

Figure 1: Georgia Lottery COAM performance, 2015 – 2019 9

Figure 2: DC Lottery organizational chart 17

Introduction

On February 27, 2020, District of Columbia Mayor Muriel Bowser signed emergency temporary legislation allowing for the licensing of electronic games of skill by the Alcoholic Beverage Regulation Administration (“ABRA”). The temporary legislation includes the following provisions:

- Restricting devices to manufacturers with an on-site consumption permit, restaurants, nightclubs, taverns, hotels, and multipurpose facilities.
- Requiring licensees to secure a Games of Skill Endorsement.
- Prohibiting persons under 18 years of age from playing.
- Capping the total number of devices to three (3) per establishment.
- Requiring legal guidance from the District’s Office of the Attorney General stating the terminal or device is a legally permissible game of skill.
- Requiring security cameras and the posting of warning signs.¹¹

On October 15, 2019, the Office of the Attorney General provided an opinion to ABRA that the game “Dragon’s Ascent” is a legally permissible game of skill.¹² The opinion was issued in response to the request from a sports bar located in the District for permission to place the game on its premises. The “Dragon’s Ascent” game is manufactured by Pace-O-Matic. The opinion concluded that the game had no element of chance and was not a gaming device. To date, “Dragon’s Ascent” is the only Game of Skill that has been approved by the Office of the Attorney General.

Since February 27, 2020, ABRA has received 37 applications, all seeking to place three machines of “Dragon’s Ascent” on the licensed premises.¹³ ABRA has recently received two additional applications to place different games produced by a different manufacturer. In sum, ABRA has received 39 applications for 117 machines in the first week of the temporary legislative authorization.

Draft legislation to permanently regulate games of skill has been drafted, and it has been reviewed as part of this report. The draft bill contains most of the same requirements as the temporary authorization, with some notable exceptions. First, there will be at least three types of licenses issued by the DC Lottery: manufacturer, distributor, and location licenses. One version of the bill has a supplier license category, but it is not clear if that will be in the final version. Licensed locations will be limited to on-site consumption-permit establishments, but ABRA will only issue game of skill endorsements for licensed locations seeking to operate a game of skill under a license issued by the Lottery.

¹¹ District of Columbia, Alcoholic Beverage Regulation Administration, Electronic Games of Skill. <https://abra.dc.gov/page/electronic-games-skill>.

¹² Memorandum from Brian Flowers, Deputy Attorney General, to Jonathan Berman, Assistant Attorney General, Office of the Attorney General, Government of the District of Columbia, October 25, 2019.

¹³ Interviews with Fred Moosally, Director of ABRA, February 24, 2020, and March 5, 2020.

The District of Columbia Office of Lottery and Gaming (“Lottery”) engaged Spectrum Gaming Group (“Spectrum,” “we” or “our”) to provide an independent analysis of impacts of licensing and regulating electronic games of skill in the District. The Lottery directed Spectrum to provide a report that includes the following:

1. An estimate of the existing presence of unregulated electronic games of skill machines operating within the District.
2. A projection of potential revenue to be generated from licensing and regulating electronic games of skill machines in the District of Columbia.
3. An assessment detailing the Lottery’s staffing and administrative needs to undertake the regulation of electronic games of skill machines, and the estimated costs and budget impact associated with staffing and administrative needs.

A. Methodology

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

- **Data collection:** Spectrum collected data from numerous sources including state agencies and private-sector sources. As gaming is a highly regulated industry and states seek to ensure their citizens that gaming activities are conducted fairly and openly, they typically make available volumes of data.
- **Interviews:** Spectrum conducted interviews for all aspects of this project.
- **Experience of relevant jurisdictions:** Spectrum researched and assessed the structure, regulations and performance of gaming in other relevant states. This provided critical context for our recommendations in this report and in our forecasts for the District.
- **Our experience:** Spectrum has been providing independent research and professional services related to the gaming industry since 1993, and many of our executives and associates have been gaming regulators, operators or analysts for decades. We have conducted studies or consultations in 40 US states and territories, including for numerous state, tribal and national governments.

Throughout the course of this project we received a high level of cooperation from the DC Lottery, which recognizes that this report will be an important tool in helping the District understand the considerations and impacts of regulating games of skill.

B. Overview of Games of Skill/Distributed Gaming

Distributed gaming is slot-machine-style gaming at machines placed in authorized, non-casino locations such as bars, taverns and fraternal organizations. Typically, they are restricted to 5 to 10 machines per location. Distributed gaming also encompasses games of skill to many in the industry. The crossover of games of skill and games of chance demonstrates the difficulty in regulating games of skill, as at least an element of chance can be introduced with a change in the parameters of the game, which blurs the line between a game of skill and slot-machine-style games.

Much of this retail gaming is unregulated gaming. Unregulated gaming, which includes that which is expressly illegal and that which falls into a “gray area” of the law, is rampant in many states. The difficulty arises in determining how much skill or what elements of skill are necessary to categorize a game a skill game versus a game of chance, which is clearly gambling and illegal.¹⁴ The games of skill often have adjustable parameters that vary the amount of skill involved depending on the type of game, so at times this determination is a moving target.

Frequently, if a state establishes a statute or practice to eliminate these games, the manufacturer adjusts the parameters of the game to allow the game to arguably comply with local requirements. State and local rules govern whether these games are legal. In any event, these games or machines are all lumped under the term “gray machines,” as they have been commonly referred to during Spectrum’s work on this report. Many states have tens of thousands of unregulated gaming machines operating in plain sight. Later in this report, we provide estimates of the number of gray machines or unregulated gaming in different states and the potential costs or economic impacts to other gaming interests in those states.

In response to the presence of unregulated gaming, a handful of states are attempting to regulate these machines and develop them as a revenue source. Most of this regulation is aimed at regulating games of chance, e.g. slot-style machines based on chance, video poker, etc. Two states, Georgia and Iowa, have focused on allowing games of skill in an attempt to eliminate or minimize the presence of illegal games of chance at retail locations.

Here is an overview of state regulation of distributed gaming:¹⁵

- **Illinois:** Allows video gaming in four types of establishments: on-premise liquor license, fraternal establishment, veterans establishments and truckstops. Establishment can have up to six machines. As of January 2020, there were 7,234 establishments with 34,595 machines.
- **Louisiana:** Allows gaming machines in truckstops, restaurants, bars, off-track betting facilities, and hotels. Louisiana limits the type of machines to video poker only.
- **Oregon:** Introduced video lottery terminals (“VLTs”) in 1992 and slot-style machines in 2005. There are approximately 4,000 locations in Oregon.
- **Pennsylvania:** Started allowing video gaming in 2019. It allows video gaming only at truck tops that meet licensing criteria.
- **South Dakota:** Allows video gaming terminals that have poker, keno, blackjack, and bingo. South Dakota only allows machines in bars and taverns. State has about 1,347 licensed locations.
- **West Virginia:** Allows bars, restaurants and fraternal organizations to have to up 10 video lottery terminals. West Virginia currently has approximately 1,470 locations licensed for VLTs.

¹⁴ Interview with Julie Barker, General Counsel, Georgia Lottery COAM Division, March 3, 2020. (Georgia statute is vague in that it requires machines to just have some element of skill.)

¹⁵ “State by State Guide to Video Gaming,” Joseph Misulonas, Accel Entertainment, September 27, 2019, www.accelentertainment.com/blog/state-by-state-guide-to-video-gaming.

Iowa allows games of skill and games of chance but with many limitations to types of event (fairs, bingos, private settings) and price and prize limitations.¹⁶ Restrictions appear very convoluted and not at all similar to what is being consider in the District. Moreover, the restrictions to place and events appear to create a situation where these machines do not have a consistent presence in the marketplace.

Conversely, Georgia – which, like the District of Columbia, has no casino industry -- is the best example to study in preparation for regulating games of skill. In 2014, the Georgia Lottery began licensing and regulating coin operated amusement machines (COAM).¹⁷ Prior to 2014, the Georgia Department of Revenue was responsible for regulating these games of skill under a much looser regulatory structure with no central monitoring of machines.

Beginning in 2014, the Georgia COAM statute divided the machines into two categories:

- Class A machines consist of typical arcade games; e.g., pinball, Skee-Ball etc.
- Class B machines are games of skill or gaming type machines that award the player some type of prize.

Unlike, the states mentioned above, Georgia prohibits unlicensed games of chance to operate in any retail establishment, but does allow games of chance to be licensed in any retail establishment. The other states allow games of chance, such as slot-styles machines and video poker. Based on discussions with Georgia COAM staff, the element of skill requirement has been applied in practice that games have to possess some element of skill to be allowed.¹⁸

Highlights of the Georgia COAM statutes:¹⁹

- The definition of “bona fide coin operated amusement device” includes the requirements that “the result of whose operation depends in whole or in part upon the skill of the player.” In practice, the “in part upon the skill of the player” language has resulted in an element of chance being introduced in some games and still being compliant with Georgia statute per Georgia COAM staff.
- Class A Machines are bona fide coin operated amusement machines that are not Class B that does not allow a successful player to carry over points on one play to subsequent plays, and it provides no reward to a successful player except for free plays, noncash merchandise prizes, prizes or novelties. Class A are typical arcade games.
- Class B Machines are bona fide coin operated amusement machines that do allow a successful player to carry over points on one play to subsequent plays. Prizes cannot be cash but are limited to gift cards for the establishment, merchandise or services offered by the establishments, lottery tickets in some instances, or non-cash merchandise. Georgia law prohibits COAM retailers from using alcohol, tobacco or firearms as prizes.

¹⁶ Iowa Gambling Law, Gambling Law – US. <https://www.gambling-law-us.com/iowa/gambling-laws/>

¹⁷ Georgia Lottery-Coin Operated Amusement Machines (COAM), “Overview.” <https://www.galottery.com/en-us/coam.html>

¹⁸ Barker interview.

¹⁹ Georgia Code Title 50, Chapter 27, Article 3. <https://www.gacoam.com/API/Documents/Document?documentID=258>

- Creates Master and Location licenses for each class of machine.
- Master licenses are required for the manufacturer, owners or distributors of machines in a location by lease or any other arrangement where the licensee retains ownership of the machine while it is located in a retail establishment.
- Location licenses are required for all retail locations that place a machine on their premises.
- Proposed restrictions that the holder of one type of license cannot hold another type of license under statute.
- Effective in 2015, all Class B machines are required to be connected to central monitoring system.
- All machines must have a registration sticker.
- The Georgia COAM statute does not restrict the type of establishments, but does restrict the number of machines per establishment to six.
- Tax rate escalated from 5 percent in FY 2015 to 10 percent starting in FY 2020.

The District of Columbia is proposing a similar regulatory scheme to the Georgia COAM requirements:²⁰

- The Lottery shall issue three types of games of skill licenses: Manufacturer, Distributor, Games of Skill retailer.
- Eligible retailers are limited to establishments that are licensed to serve and consume alcohol on premises.
- All licensees subject to criminal background checks.
- Lottery and ABRA approval required for locations to operate games of skill.
- Manufacturer and Distributor licenses are similar to Master licenses in Georgia. Fees the same for both types of licenses under proposed legislation.
- Games of skill retailer license: lower fee and a limitation of three machines per location.
- All machines must have a registration sticker.
- Registration fee of \$100 for each machine.
- All licenses renewed annually.
- Bonding requirement for licensees.
- Proposed restrictions that the holder of one type of license cannot hold another type of license under statute.
- All games of skill are required to be tested for compliance prior to registration with applicant paying all costs for testing.
- Machines required to pay out at least 80 percent.
- Machines are prohibited from use of a random selection process to determine outcome of each play of game of skill. (On the surface, these requirements appear to be more stringent than Georgia.)

²⁰ This information has been derived from proposed legislation supplied by the DC Lottery.

- Prohibits alteration of payout percentage or alteration of play parameters of each game.
- Machines required to be linked to central monitoring system.
- Cash prizes are permissible in establishment. Machine will award player a ticket that can be redeemed for cash, with a cap on the amount of the cash award.
- Age restricted use to players over the age of 18.
- Within 120 days of effective date of legislation, the Lottery shall issue a competitive procurement for a centralized monitoring system. Three months after the procurement, all licensed games shall connect to the central monitoring system.
- Central monitoring system shall ensure compliance of machines and have an accounting function.
- Tax rate for administration of the system is 10 percent paid monthly.

The types of the machines – i.e., games of skill and games of chance – employed in retail gaming are wide ranging. Spectrum has conducted gaming studies in numerous jurisdictions and has noted common characteristics for gray market skill games and gray market sweepstakes games.

I. Estimating Presence of Electronic Skill Games in DC

Due to the very nature of unregulated gaming, it is difficult to ascertain the number of existing unregulated games of skill in the District. The RFQ itself states that these machines have not appeared within the District as they have in Missouri, Pennsylvania and Virginia. The number of the machines in these states is estimated at the following:²¹

- **Missouri:** 14,000 machines operating in bars, taverns and fraternal organizations; the state lottery estimated it will lose \$50 million from unregulated machines
- **North Carolina:** Tens of thousands of gray market machines (sweepstakes games, nudge games and fish games) operating in convenience stores, bars and standalone, dedicated locations. (This number is based on Spectrum interviews with officials in North Carolina.)
- **Pennsylvania:** 7,000 gray machines statewide. The lottery estimated that it lost \$209 million in FY 2020 sales from competition with unregulated machines.
- **Virginia:** 9,000 machines in lottery retailers; the state lottery staff estimated the number of its retailers had machines and estimated it could lose as much as \$140 million from competition from unregulated machines.

The Mayor's supporting documentation of the emergency legislation and conversations with ABRA and Lottery staff support the belief that these games of skill are not present throughout the District – at least not in the establishments regulated by ABRA or the Lottery.

The difficulty with not regulating the gray machines comes down to control. As is discussed in the policy consideration section of this report, the absence of rigorous regulation translates into an absence of effective control on how these games could otherwise proliferate throughout the District.

This lack of control is particularly problematic in the following areas:

- Locations
- Operators
- Game integrity
- Revenue streams

²¹ Chris Sieroty, "Enforcement Needed As 'Gray Slot Machines' Have Cost Missouri Lottery \$50M," Gambling Compliance January 13, 2020. <https://gamblingcompliance.com/premium-content/insights-analysis/enforcement-needed-grey-slot-machines-have-cost-missouri-lottery>

Robert Swift, "Traditional Lottery ticket sales face competition from Games of Skill," Capitolwire February 18, 2020. https://www.wfmz.com/news/area/berks/lawmaker-aims-to-crack-down-on-pennsylvania-skill-gaming/article_6b4c39eb-7a45-5f07-b219-829d14c34c20.html

Ned Oliver, "VA Lottery says it is on track to lose \$140 Million to Unregulated 'skill games,'" *Virginia Mercury*, September 16, 2019. <https://www.virginiamercury.com/blog-va/va-lottery-says-its-on-track-to-lose-140m-this-year-to-gray-market-skill-games/>

Brad Hall, "Virginia House votes to ban 'skill games', despite Governor's call to tax and regulate," Virginia Politics, February 6, 2020. <https://www.wavy.com/news/politics/virginia-politics/virginia-house-votes-to-ban-skill-machines-despite-governors-call-to-tax-and-regulate-them/>

- Game Rules
- Types of games
- Underage gaming
- Responsible gaming

The first two bullet points are of particular concern. If, at the outset, the District does not effectively control where the machines are located, how they operate, and what companies are providing the games, significant problems will inevitably occur, and the opportunity to resolve those problems once machines are operational will diminish dramatically.

Moreover, a failure to effectively control the location of games will lead to additional issues, including the potential presence of undesirable machine suppliers while increasing risks related to problem gambling. Significantly, such a failure to control would also divert future revenue to the District, by limiting options to consider and approve future gaming options.

The estimated presence of 9,000 retail games in neighboring Virginia supports the conclusion that if this unregulated gaming is not present in the District, then it will be soon. The Virginia Lottery projects that it has lost \$120 million to gray machines, which equates to \$13,000 per gray machine. Accordingly, the presence of even 1,000 machines in the District represents potentially lost revenue.

Based on these numbers and the proliferation of these games in other states, establishing a regulatory scheme to control retail gaming in the District not only has clear revenue benefits but also the avoidance of other negative effects of unregulated gaming.

II. Projected Potential Revenue from Regulated Games

The Georgia Lottery provides the best benchmark to project potential revenue for games of skill in the District. The State of Iowa has legalized games of skill. Iowa has done so in a limited fashion by restricting the machines' presence to fair- and event-type settings, where it seems the machines do not have a consistent presence. In Georgia, there is a relatively consistent number of locations, about 5,000. Accordingly, the Georgia regulatory framework provides a similar comparison to the regulatory framework proposed in the permanent legislation.

The table below provides the performance of the games of skill (referred to as Class B machines in Georgia) and arcade style games (Class A machines in Georgia) over the last few fiscal years.

Figure 1: Georgia Lottery COAM performance, 2015 – 2019

Fiscal Year	Revenue (M)*	Locations	Tax Rate	Total Gross Gaming Revenue (M)**
2019	\$70.6	5,000	9%	\$784
2018	\$58.8	5,000	8%	\$735
2017	\$47.2	5,000	7%	\$674
2016	\$36.2	5,000	6%	\$603
2015***	\$33.4	5,000	5%	***

Source: Georgia Lottery Financial Statements 2015-2019. *These figures are net gaming revenue to the state. **Gross revenue from all machines minus credits paid out to players. ***Centralized Monitoring System went live in January 2015. During five months of monitoring, revenue share reported around \$6 million. At 5 percent tax rate, the GGR would be \$120 million for five months, or \$288 million for year.

In comparing Georgia and DC, the demographics on income, population and population density differ greatly.²² DC has a median household income of approximately \$85,000 as compared to Georgia's approximately \$58,000. Conversely, Georgia has a population of 10,600,000 as compared to DC's 705,000. Density per square mile Georgia is 168; in DC it is 9,856.

Georgia's history of numbers of Class B Games of Skill Machines has varied over the last three reporting years:

- FY 2019: 23,900
- FY 2018: 26,582
- FY 2017: 25,585

These figures were obtained from the Georgia Lottery Corporation financial statements. The financial statements for FY 2015 and FY 2016 do not provide the number of active Class B machines during those years. FY 2016 is significant in the history of Georgia COAM performance, in that on January 1, 2015, the Georgia Lottery implemented a centralized monitoring system that monitor the operation and revenue of all Class B machines.²³ Thus, FY 2016 was the first full year of centralized monitoring in Georgia. In reviewing the Georgia Lottery financial statement covering FY 2014, FY 2015 and FY 2016, there is a

²² U.S. Census Bureau: Quick Facts Georgia and District of Columbia. <https://www.census.gov/quickfacts/fact/table/GA,DC/PST045219>.

²³ Georgia Lottery Corporation Financial Statements, Fiscal Years Ending June 30, 2016 and June 30, 2017.

significant increase in revenue from FY 2014 and FY 2015 to FY 2016. In interview with Georgia Lottery staff, the staff believed that the jump was in large part to the underreporting of net terminal income prior to the centralized monitoring system. Based on the available data and the centralized monitoring system, using the per machine data in Georgia from FY 2017 is prudent.

In 2017, Georgia had 25,585 Class B machines in the field. Class B machines are the same type of games of skill game the District is considering. Class A machines in Georgia are basic, arcade-style games. Class A machines do not appear to be a revenue-generating source other than licensing and machine registration fees. In other words, Class A machines are not linked to the central monitoring system to track revenue and assess the 10 percent tax. The Georgia Lottery's Financial Statements clearly differentiate the monitoring revenue that is depicted in the chart above for Class B machines only. GGR is gross revenue minus prizes or credits paid to players. In Georgia for the 25,585 machines, the GGR per machine is \$26,343.

A significant difference between the Georgia regulations and the proposed DC regulatory scheme is the limitation of the type of establishments that are eligible to apply for a location license. Georgia has no restrictions on the type of establishments that can apply for a location license, but as a practice does not license liquor stores and bars, and restaurants have not shown an interest. The proposed DC legislation limits the eligible locations to locations that are licensed to consume alcohol on the premises. According to ABRA, the District had 1,513 eligible locations as of March 13, 2020.²⁴ In any event, the limitation on the type of retailer creates a much more limited pool of potential applicants in the District.

Another significant difference between the Georgia statute and the DC draft legislation is the limitation on the types of prizes that can be offered players. The Georgia statute prohibits retailers from offering cash, alcohol, tobacco, firearms or lottery tickets as prizes if the location is not a licensed lottery retailer. In the DC draft legislation, cash prizes are available to players at the location.

These differences between the Georgia statute and the DC draft legislation do not make the Georgia experience inapplicable to projecting what the District can expect. First, the difference in the types of locations should not limit the applicability of the per machine GGR. Interviews the former Georgia Lottery General Counsel, he stated that the convenience store setting in Georgia is much more social than one would expect. Many COAM players congregate at these locations to socialize with friends over coffee and spend significant time playing the COAMs. In the draft legislation, the bars and restaurants are the only eligible locations. This type of establishment is social in nature where customers have an extended stay on the premises.

Based on Spectrum's experience, the differences in the availability of cash prizes in the draft legislation and the prohibition of the same in Georgia would support the conclusion that games that offer a cash option generate greater play from players. For example, lottery players who participate in lottery games that offer merchandise prizes – e.g., trips and cars – have shown the preference for cash prizes in lieu of merchandise. This factor would support the premises that these games could receive greater play

²⁴ Interviews with Fred Moosally, Director of ABRA, February 24, 2020, and March 5, 2020.

per machine in the District where cash prizes are available. In any event, the Georgia per machine GGR is applicable to this analysis and may in fact be conservative.

Under the temporary legislation, ABRA is authorized to accept applications to authorized eligible locations to operate games of skill machines until permanent legislation is enacted. Since February 27, 2020, ABRA has received 37 applications for 111 Dragon Ascent machines. The Dragon Ascent machines are the games approved as games of skill by the District's Office of the Attorney General. Under the temporary legislation, games must be approved by the Office of Attorney General prior to approval by ABRA. Under the proposed legislation, games of skill would be tested and certified as games of skill in compliance with District requirements prior to approval. ABRA also has received two applications for games not approved by the Office of the Attorney General.

If the District continues to receive applications at this rate, it will receive 78 applications per month for 234 machines. In the first year of operations, the District would receive 936 applications from the total potential pool of 1,513. Roughly 60 percent of the eligible applicants would have applied in the first year.

The District and its representatives have made clear from their experience that many of the potential franchises that could offer skill-based gaming have expressed qualms and may not elect to participate. By way of example, some higher-end restaurants and others have raised questions as to whether the demographics of future players on such devices represent their target demographic, or whether the presence of such machines and players may alter the image and brand of such establishments, or take up space that could otherwise be allocated to more profitable spending patterns.

That is a qualitative assessment that and does not lend itself to empirical data. Nonetheless, it is a real concern that we are incorporating into our modeling to reduce the number of potential establishments in an effort to develop a conservative, more achievable scenario.

The 936 locations in Year 1 noted above is approximately 60 percent of the total eligible locations that could operate games of skill, leaving 40 percent of locations that would elect not to participate. A 60-40 ratio would generally meet the standards for conservative projections. However, based on the actual experience of lottery professionals who have met with potential establishments, we have elected to further reduce the ratio to a more conservative, achievable result.

Accordingly, in reviewing the types of on-premises retail establishments, the 1,513 total number of locations can be categorized in the three types of establishments:²⁵

1. Taverns: 399
2. Restaurants: 903
3. Other (hotels, multipurpose facilities, clubs): 211

Factoring in the District's qualitative assessment of projected interest, Spectrum applied a different rate of participation for each category above to provide a low estimate of the number of locations that would operate games of skill in the District. One could argue that taverns are more a social

²⁵ This information is based on an untitled spreadsheet provided by ABRA Director Fred Moosally.

setting that would lead to a higher participation level; we believe the Georgia 75 percent participation rate is a fair application to the Tavern category. Based on discussions with the District representatives, the remaining two categories of establishments will have a far lower level of interest. In calculating the lower estimate, a 20 percent participation rate will be applied to the Restaurant category and a 5 percent participation rate will apply to the Other category:

1. Taverns: 299
2. Restaurants: 180
3. Other: 10

In this lower estimate, a total of 489 establishments would participate.

Accordingly, in projecting revenues and costs, this report will provide a high-low range based on 936 and 489 locations participating. The difference in the number of machines between the high and low figures is 2,808 and 1,467. It is Spectrum's recommendation that given the uncertainty about the level of interest in games of skill in the District and the lack of available data from other jurisdictions (limited to Georgia) that the District employ the lower, more conservative estimate for planning purposes.

An examination of the number of retailers and machines in Georgia shows that the number of retailers has held relatively steady, but there has been a sudden drop in the number of machines. The monitoring revenue number in Georgia has steadily climbed even in the face of a decline in the number of machines, meaning the rate of play has increased. Georgia is in its fourth full fiscal year of centralized monitoring. Based on this four-year experience, DC can expect to experience the same progression of number of retailers, number of machines, rate of play, and monitoring revenue to the District. Beyond four years, there is no empirical data to predict whether this steady climb in revenue will continue or eventually level off.

Based on the Georgia annual per machine average of \$1,844 in tax revenue in FY 2017, each machine would return to the District \$153 in revenue per month. This figure is based on the 9 percent tax Georgia applies to net terminal revenue in FY 2019. The Georgia tax rate increased to 10 percent on July 1, 2019.²⁶ In Georgia, similar to the DC draft legislation, the tax rate is applied to net terminal income (i.e., gross gaming revenue,²⁷ or "GGR"). In applying the 9 percent tax rate in Georgia to the annual tax revenue per machine, we determine the total GGR per machine as \$26,343 per year. This total GGR per machine per year can then be the basis of the per machine estimate in DC in the high estimate described above. We note that the DC tax rate under the draft legislation is 10 percent of net terminal income.

Once DC has successfully processed all expected applications after one year, the projections for revenue under the high and low scenarios are as follows:

²⁶ Georgia Lottery Corporation Financial Statement FY 2019.

²⁷ GGR is the same concept as net terminal income under the proposed legislation; it is amount wagered/played minus player winnings/prizes.

- High estimate:
 - 936 locations
 - 2,808 machines, assuming three machines per location.
 - \$73.9 million per year in GGR at \$26,343 per machine.
- Low estimate:
 - 489 locations
 - 1,467 machines, assuming three machines per location
 - \$38.9 million per year in GGR at \$26,343 per machine

Based on the high and low projections described above, the District could realize approximately \$3.9 million in tax revenue on the low estimate and \$7 million on the high estimate upon full implementation if the District’s performance matches the performance of Georgia. This amount would be phased in over time, as the approval and activation process moves forward. The first significant hurdle will be to procure and go live with a centralized monitoring system. Based on conversations with current and past Georgia Lottery staff, this was the most significant development in maximizing revenues from the COAM program. Prior to centralized monitoring, terminal revenues were underreported.

Additionally, during the first year, the number of active, licensed locations will steadily increase, so revenue is projected to increase monthly during the first year. The figures below show the GGR for the first month of operations under both the high and low estimates. In Month 2, the number of machines doubles if the District is able to process the same number of applications every month. In the high estimate, the number of machines would increase by 234 machines per month, based on 78 applications each month. For the low estimate, the number machines in Month 1 would be 147 machines then increase by 120 machines per month for the first 12 months.

High Estimate:

- **Month 1:** 234 machines, projected GGR of \$513,688; 10 percent tax = \$51,368
- **Month 2:** 468 machines, projected GGR of 2 \$1,027,260; 10 percent tax = \$102,726.

Low Estimate:

- **Month 1:** 147 machines, projected GGR of \$322,665; 10 percent tax = \$32,266.
- **Month 2:** 267 machines, projected GGR of 2 \$586,065; 10 percent tax = \$58,606.

This assumes that each month the same average number of applications for three machines per location are received.

FY 2015 was the first full year of centralized monitoring in Georgia. Revenue saw a remarkable jump after self-reporting was eliminated. DC could see a similar issue. Within four months of the effective date of the permanent legislation, the Lottery is required to procure a vendor to provide and operate a central monitoring services system. It is required to be operational three months after the service is procured. So, the District will experience at least seven months of self-reporting, if not longer. As was experienced in Georgia, self-reporting caused net terminal revenue to be underreported. If DC

experiences underreporting, the projections stated in this report could be significantly decreased. Based on the data, this amount is difficult to quantify. In reviewing the Georgia Lottery financial statements, for FY 2015 and FY 2014, terminal revenues were approximately 45 percent and 40 percent, respectively, of the terminal revenues in FY 2016.

A. Licensing

Georgia issues Master licenses for both Class A and Class B machines. Master licenses would be the equivalent to the Manufacturer and Distributor licenses under the proposed DC legislation. Currently, Georgia has 182 master licensees. It is difficult to predict how this number translates in DC for Manufacturer and Distributor licensees. DC is a smaller market so the attractiveness may not be present for manufacturers but given the population density and number of locations the market should be profitable.

Additionally, during the first year, the number of active, licensed locations will steadily increase, so revenue is projected to increase monthly during the first year. The figures below show the GGR for the first month of operations under both the high and low estimates. In Month 2, the number of machines doubles if the District is able to process the same number of applications every month. In the high estimate, the number of machines would increase by 234 machines per month, based on 78 applications each month. For the low estimate, the number machines in Month 1 would be 147 machines then increase by 120 machines per month for the first 12 months.

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- **Month 2:** 267 machines, projected GGR of \$586,065; 10 percent tax = \$58,606.

This assumes that each month the same average number of applications for three machines per location are received.

Based on the projected number of licenses by the end of Year 1, the potential licensing revenue for each scenario is projected as follows:

- **High estimate, location licenses Year 1:** 936, \$300 license fee annually, \$280,800
- **Low estimate, location licenses Year 1:** 489, \$300 license fee annually, \$146,700
- **Manufacturer/Distributor licenses Year 1:** 20 licensees in Year 1, increasing by 10 in Year 2
 - \$10,000 fee for initial \$5,000 for renewal
 - Year 1: \$200,000
 - Year 2: \$200,000

- Year 3: \$150,000 (assuming no additional licensees)

With respect to the Manufacturer and Distributor licenses, this license covers not only the manufacturers of these games, which are limited, but also companies that own the machines or distribute machines to retail locations. In Georgia, the vast number of the 182 licenses in this category are companies that purchase the machines from the manufacturer and enter into agreements with retail locations. Of these 182 licenses, it is estimated that less than 20 percent of the licensees own approximately 75 percent of all the machines.²⁸ In the District, Spectrum estimates that 20 manufacturers and owners of these machines will apply for a licenses, with another 10 applying in Year 2.

Under the proposed legislation, machine fees are \$100 per machine. The machine fees are projected to be \$280,800 based on a projected 2,808 machines at 936 locations and \$146,700 based on a projected 1,467 machines in 489 locations.

ABRA would be required to issue a license endorsement to allow an establishment to operate a game of skill. This is in addition to a location license. Based on a projected 936 licenses, the ABRA fee is projected to be \$187,200 at full implementation and \$97,800 based on 489 locations.

Summary of Revenue Streams

Under the draft legislation, the District will realize three streams of revenue:

1. Game Monitoring Revenues (10 percent tax on net terminal income)
2. Licensing Fees
3. Administrative Fines and Fees

This report projects Game Monitoring Revenues and Licensing Fees using both the Georgia COAM example and the interest the District has received thus far under the temporary legislation. Projecting the revenue received from administrative fines and fees is difficult to do with any degree of certainty.

With respect to the projection of game monitoring revenue, the District needs to be cognizant of several factors:

1. Revenues realized in the first year could be delayed, depending on the District's ability to make administrative changes, process applications, certify games and all machines to become operational. If applications are not processed at a rate currently anticipated, the revenue realized will be lower.
2. The lack of empirical data on the regulation of games of skill leaves Georgia as the only current example. As discussed above, the demographics above are split in comparing the two jurisdictions with DC having a higher median household income and population density , while Georgia has a significantly larger population, more retailers and more machines. Notably, the projection from Virginia on revenue lost to gray machines supports the data from Georgia on per-machine GGR.
3. Georgia also has a more developed lottery in place, in that it offers a more developed product line; e.g., ilottery, which could make the Georgia population more open to new gaming alternatives.

²⁸ Interview with Kurt Freedlund, former General Counsel, Georgia Lottery Corporation, March 30, 2020.

4. Given the lack of empirical data beyond Georgia, the differences between DC, and Georgia, and the District's qualitative opinion that interest will be less in Georgia, we have provided both low and high projections on the revenues the District could expect from regulating games of skill. Given the uncertainty of the interest in the District and the uncertainty of the times we find ourselves in, Spectrum recommends the District use the low estimate for planning purposes.
5. The District should focus on developing an RFP and procuring a central monitoring systems vendor. While there will be a cost associated with contracting with a vendor, putting a system in place will maximize the revenue collected. The Georgia example makes it clear that until a central monitoring system is in place, terminal revenues will likely be underreported.

III. Assessment of Lottery’s Staffing, Administrative Needs

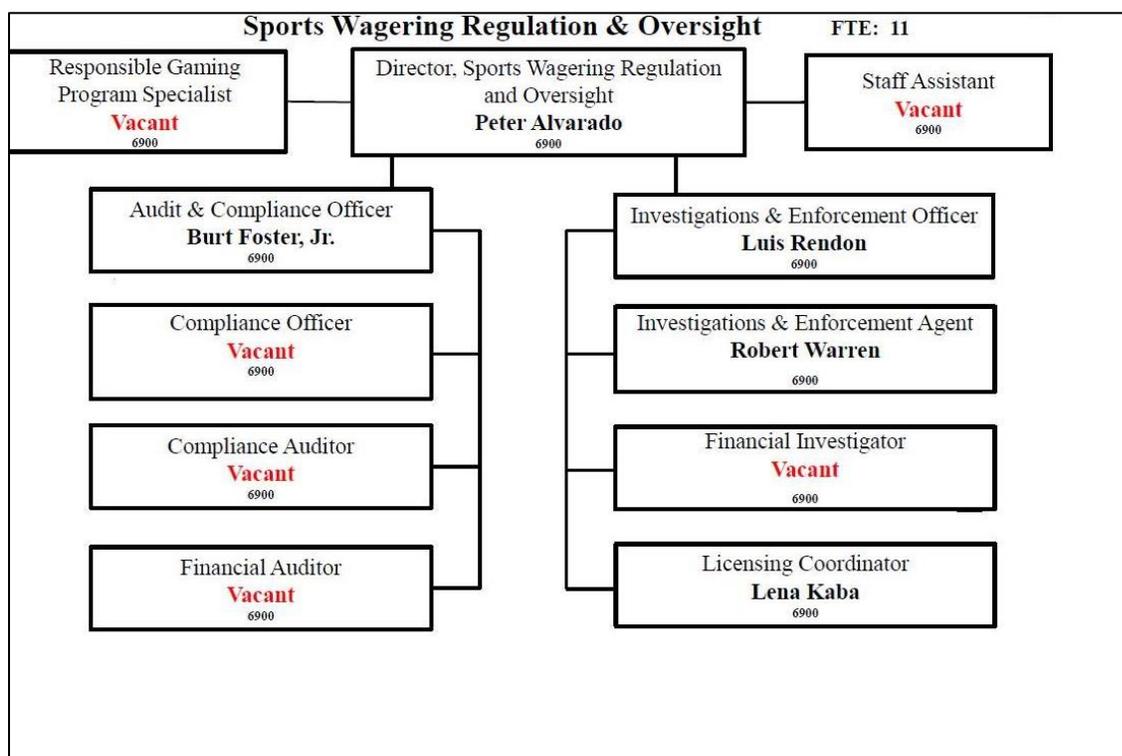
The District has requested that this report provide an overview of potential costs to implement the regulation of gray machines under the proposed legislation. The Georgia COAM experience again provides a valuable guidepost to project what costs may be incurred. This section will address other costs and potential impact to other sources revenue particularly lottery and the rollout sports betting. This section will address:

- Impact on Staffing
- Administrative Enforcement
- Central Monitoring System
- Testing Services
- Miscellaneous Costs

A. Impact on Staffing

The introduction of sports betting in the District has created permanent changes in the Lottery’s staffing structure. The Lottery has created a new department entitled Regulation and Oversight. This Department is currently responsible all licensing and compliance functions for private operated sports betting. The department’s organization chart appears below:

Figure 2: DC Lottery organizational chart



Source: DC Lottery

The Lottery would include the licensing and regulation of games of skill under the same department.

In 2013, the Georgia Lottery took a somewhat similar approach to start licensing and regulating COAMs in Georgia.²⁹ The Georgia COAM statute requires the lottery to issue three different licenses: master license, location license, and manufacturer or distributor license.³⁰ The Georgia statute also classifies the machines into Class A for typical arcade games and Class B for gaming machines. Master and location licenses are required for both classes of machines. For the purposes of this report, Class B machines offer the only relevant comparison to the proposed legislation in the District.

In Georgia, the Lottery issues approximately 5,000 Class B location licenses, which are renewable on an annual basis.³¹ The number of Master licenses is capped at 220 for Class B machines. Currently, Georgia has only issued 180 Master Class B licenses.

In implementing the COAM statute, the Georgia Lottery used the same staff that licenses Lottery retailers to process and review COAM license applications. Based on interviews with Georgia Lottery staff, licensing staff members needed training and support in conducting background checks. Additionally, the Georgia COAM Division added 14 inspectors to ensure compliance with all requirements of both the locations and the machines offered. The inspectors perform both compliance and investigation functions.

The legal department of the Georgia COAM Division is very involved with both the licensing and compliance functions of the department. The inspectors' issue "a few thousand" citations a year for the 5,000 Class B locations and Master licensees. These licensed locations can have up to six machines per location, so the overall limit is 30,000 machines. Similar to other states, administrative violations are subject to an administrative appeal process. The Georgia Administrative Law Division conducts hearings two days every month to address all citations issued by the inspectors.

It is projected that DC will have approximately between 9 percent and 18 percent of the number of licensees that the Georgia COAM does. Estimating that Georgia COAM writes about 2,000 citations per year, the DC projection (18 percent of that figure) is 374 citations per year. The legal department of the Lottery will need to quantify the cost of processing those citations with current staff and as part of the administrative process it currently follows.

As stated above, Georgia assigned all licensing functions to its existing Lottery retailer licensing staff with no increase in staffing. DC will perform the licensing function in its Regulation and Oversight department. Currently, this department has one licensing staff member who along with two current investigators who participate in the licensing process. Given the infancy of sports betting and the Georgia example, it is recommended that the District use its current staff to process the projected applications in Year 1. Licensing fees should more than offset any cost associated with this addition. With the rollout of

²⁹ Baker interview.

³⁰ Georgia Code, Title 50, Chapter 27, Article 3.

³¹ Barker interview.

sports betting and potentially the regulation of games of skill, the District will need to assess its licensing staff in Year 2.

Currently, Georgia has 12 field investigators and two supervisors to inspect 5,000 locations for compliance. This equates to 416 locations per field investigator. The field investigators in Georgia perform both investigative and compliance functions. The Regulation and Oversight department has two investigators and a one compliance officer currently staffed. Given that two investigators in the Department have roles in the licensing function, one of the unfilled positions for a compliance staff member should be filling with a potential for 936 locations in Year 1. This addition would allow the District to match Georgia's 416 locations per field investigator.

B. Central Monitoring System

In Georgia, FY 2015 was the first full year of centralized monitoring. In FY 2015, revenue saw a remarkable jump after self-reporting was eliminated. DC could see a similar issue. Within four months of the effective date of the permanent legislation, the Lottery is required to go to bid for central monitoring services. It is required to be operational three months after the bid is awarded.

In Georgia, Intralot was awarded a 10-year contract with a fixed rate for each of the 10 years at 1.2489 percent of net daily revenues generated by COAM machines. This rate will not change during life of the contract. Similar to gaming system contracts, lotteries are successful in not only matching the past cost rates for similar contracts, but frequently find more advantageous terms and value-added items. For planning purpose, DC should plan on the 1.2489 percent rate as its benchmark. The District should appreciate the fact that in the provision of technology services, gaming vendors at times charge higher rates for smaller jurisdictions.

C. Testing

The proposed statute has significant testing requirements for any game a manufacturer would like to introduce in the District. Specifically, the testing function will determine if a game is game of skill in compliance with the requirements of the statute. It is noteworthy to point out that the requirements of the proposed D.C. statute are much more specific than the current Georgia requirements mentioned earlier in this report. Specifically, in practice, Georgia only requires games have some element of skill but does not quantify what that means.³²The proposed legislation requires the Lottery to issue an RFP to procure the services of a testing company. Legislation states that applicants shall pay the cost and fees of service so should be revenue and cost neutral.

The testing service would take the place of the Office of the Attorney General in certifying a game as a game of skill and complying with standard set by the District. This service is a critical element in ensuring the games offered in the District stay within the category of games of skill.

³² Barker interview.

The District should consider an alternative to the District itself coordinating the testing of proposed games. An alternative method for testing is requiring manufacturers deal directly with an approved testing company, to test proposed machines and certify the games compliance to the District. All fees would be paid by the manufacturer directly to the District-approved testing company. Under this alternative, the District would be required to conduct a Request for Qualification to certify approved testing companies.

D. Miscellaneous Costs

There are other costs the District needs to quantify as it plans to regulate games of skill. The proposed legislation establishes certain requirements that have a cost attached to the task, including:

1. **Criminal background checks:** The Lottery currently engages a vendor to conduct background checks in sports betting and lottery retailers. The proposed legislation imposes similar requirements on licensed applicants.
2. **Machine Stickers:** The proposed legislation requires each machine that has been tested and registered to have a sticker affixed to the machine. The District will need to determine the cost of each sticker and consider the District could have 5,328 machines at full implementation. The proposed legislation already assesses a fee of \$75 for replacement stickers.

E. Potential Impact on Lottery and Sports Betting

Some states have experienced a negative impact on lottery sales as a result of distributed gaming being introduced in the state. Of note is Illinois, where in the second half of 2013 legal distributed gaming commenced. The following shows the change in lottery sales for the first five years since launching distributed gaming:

- 2013 Lottery sales: \$1,113.0 million
- 2018 Lottery sales: \$1,021.8 million

In five years, sales declined \$91.2 million, or 8.2 percent.

Missouri, which has a significant legal casino industry, does not have regulated retail gaming but does have a presence of gray machines in the state. These machines are often located in convenience stores, gas stations and other locations that also serve as traditional lottery retailers. Missouri lottery officials told the National Council of Legislators from Gaming States conference in January that the machines cost the state at least \$50 million in lost revenue in 2019:

These new devices operate outside of the standard gambling world and aren't subject to any gambling taxes or fees. They are often called gray machines, because of their appearance — many are physically gray on the outside — as well as their regulatory status. ...

The gray machine owners appear to be targeting businesses that already have lottery games. Lottery Director May Scheve Reardon said her employees started seeing the machines in 2018, when they went out to check on their vendors.

"All of a sudden it was like a lightbulb came on, and they were everywhere," she said.

Reardon said the lottery saw an \$800,000 dip in revenue in just one area of the state — along Interstate 44 from Rolla to St. James — in the last half of 2018, which she attributes in part to the arrival of the machines.³³

These estimates are bolstered by projections from states that have significant presence of unregulated games of skill. It is estimated that Missouri has 14,000 machines operating in bars, taverns and fraternal organizations; the state lottery estimated it will lose \$50 million from unregulated machines. If this loss to the unregulated machines represents total play on 14,000 unregulated machines, then this equals total play of \$3,571 annually per machine.

As mentioned in Chapter I of this report, the Pennsylvania and Virginia lotteries have also experienced losses in lottery sales while experiencing a rise in unregulated machines.

Conversely, the Georgia Lottery has experienced steady growth in Lottery ticket sales from FY2015 (the first year of full implementation of COAM) and FY2019.

- FY 2015 lottery sales: \$4.195 billion
- FY 2019 lottery sales: \$4.776 billion

The differences between Georgia, Illinois and Missouri is that Georgia only allows games of skill, and does not have a casino industry. Moreover, the difference between the DC model and Georgia, Missouri and Illinois is that DC will limit the type of eligible locations to those that have a license to serve and consume alcohol on the premises. In DC, these premises are largely not lottery retailers. Therefore, the licensed games of skill will not be in the same location, thus limiting the effect on traditional lottery sales.

As part of Spectrum’s 2019 sports betting report for the District of Columbia, we discussed the possibility of growing the sports betting product as well as traditional lottery products in the bar and restaurant sector of the District. However, this potential growth may be slowed by the introduction of games of skill in these establishments. Most important, once games of skill are operational, that slowdown in growth may prove to be irreversible.

The District should be cognizant of this possibility, which effectively means that skill-based gaming could cannibalize sports betting if the two offerings co-exist in the same establishments.

At the same time, the Georgia example, coupled with the proposed legislation’s more stringent requirements for games of skill, could ameliorate the negative effect that games of skill may have on the Lottery and on sports betting revenues.

F. Policy Considerations

While beyond the scope of the RFQ, Spectrum believes it is important to understand key policy issues when considering a regulatory scheme for regulated gaming vs. unregulated gaming:

³³ Julie O’Donoghue, “Rise of Look-Alike Slot Machines Might Hurt Missouri’s Education Funding,” St. Louis Public Radio, November 29, 2019. <https://news.stlpublicradio.org/post/rise-look-alike-slot-machines-might-hurt-missouris-education-funding#stream/0>

Regulated Gaming	Unregulated Gaming
<ul style="list-style-type: none"> • Regulated by State <ul style="list-style-type: none"> ○ Licensed owners ○ Licensed employees ○ Audit trail to prevent fraud ○ Approved games ○ Restricted sites ○ Age restricted ○ Responsible gaming ○ Anti-money-laundering controls 	<ul style="list-style-type: none"> • No Regulations <ul style="list-style-type: none"> ○ No ownership licensing ○ No employee licensing ○ No audit trail of cash ○ Unapproved games ○ Games anywhere ○ No underage restriction ○ No self-exclusion ○ No records of transactions

Source: Spectrum Gaming Group

We underscore that “regulated gaming” is hardly an empty term. The regulations must be effective and rigorous, with strict controls in place to address all of these policy considerations, with special emphases on ensuring that all approved locations adhere to all requirements, ranging from responsible gaming practices to anti-money laundering controls.

Under-regulated gaming is effectively unregulated gaming, and would by definition undermine public policy in the District of Columbia.

About This Report

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

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

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

Our clients in 48 countries on six continents have included government entities of all types and gaming companies (national and international) of all sizes, both public and private. In addition, our principals have testified or presented before the following governmental bodies:

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

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

Disclaimer

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

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

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